# Joint Event

## World Congress on
## Physical Medicine & Rehabilitation
## &
## International Congress on
## Psychology & Behavioral Sciences

**19-20, JUNE 2024**

**TOKYO, Japan**

**Venue**

ANA Crowne Plaza Narita, 68 Horinouchi,
Narita, Chiba 286-0107, Japan


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*Thank You All*

# WELCOME MESSAGE

**Yueqin Huang**
**Peking University**
**China**

On behalf of the Scientific Committee, I take great pleasure in welcoming you to the World Congress on Physical Medicine and Rehabilitation in Tokyo, Japan. The theme of this year's conference is "Exploring Progress and Developments to Enhance Physical Medicine Research" will focus improving research on physical medicine. WCPR 2024 conference will provide a forum for professional in different disciplines to exchange ideas, experiences and evidenced-based interventions to physical medicine. While you are here, I sincerely hope that you take the opportunity to network, learn, share and collaborate with international experts. All of us on the Scientific Committee would take great pleasure in meeting you in person and learning more about your amazing work. The congress will be an enjoyable and productive event because of your attendance and participation. I hope you enjoy your stay in this wonderful Tokyo City and use pre and post conference times to enjoy the sites. Let's enjoy the congress together

**Yueqin Huang**

# WELCOME MESSAGE

**Jacques E Chelly**
**University of Pittsburgh**
**USA**

On behalf of the Scientific Committee, it is with great pleasure that I am welcoming each of you to the virtual or in person 2024 edition the World Congress on Physical Medicine and Rehabilitation to be held in Tokyo, Japan, from June 19–20, 2024, in a hybrid mode. The goal of this meeting is not only to allow each participant an opportunity to interact with speakers, ask questions and be provided scientific concepts and most recent concepts and techniques in Physical Medicine but also to allow mutual share of knowledge. All of us on the Scientific Committee would take great pleasure in meeting you either in person or virtuality and learning more about your experience and practice. We are looking forward to a mutually enjoyable and productive conference. For those who chose to attend this conference in person, I hope you enjoy Tokyo and are able to use pre and post conference times to visit one of the most interesting city in the world and visit Japan. enjoy the sites. We are all enthusiastic about your attendance and participation. Enjoy the conference!

**Jacques E Chelly**

Jacques Chelly

# WELCOME MESSAGE

**Anat Achiron**
**Tel-Aviv University**
**Israel**

On behalf of the Organizing Committee, it is my honor to welcome you to the World Congress on Physical Medicine and Rehabilitation (WCPR) 2024, held in the vibrant city of Tokyo, Japan. Among this year's important themes, "Advancing Rehabilitation in Neurological Disorders," focuses on innovative approaches to managing conditions such as multiple sclerosis. Our goal is to enhance therapeutic strategies, foster patient-centric care, and leverage emerging technologies to improve outcomes. We invite you to engage with fellow experts, share insights, and explore collaborative opportunities that can reshape patient experiences. The Organizing Committee looks forward to interacting with you and discovering the impactful contributions you bring to our field. Enjoy a fruitful conference and make the most of your time in the diverse and welcoming atmosphere of beautiful Tokyo. We are thrilled to have you with us and anticipate an inspiring exchange of knowledge and ideas.

**Anat AchironChelly**

# WELCOME MESSAGE

**Cecilia Cheng**
The University of Hong Kong
Hong Kong

I am Professor Cecilia Cheng, a health and social psychologist from the Department of Psychology at the University of Hong Kong. My research team is dedicated to enhancing both the mental and physical well-being of the general public. Through the application of theoretical frameworks from personality and social psychology, I seek to understand and address real-life challenges, such as gaming disorder, cyberbullying, school bullying, information technology addiction, digital citizenship, stress and coping, psychosomatic disorders, emotional disorders, and health-risk behaviors. To further our mission, my research group organizes workshops, courses, and lectures to promote public awareness and understanding of mental and physical health. In the present conference, I will be sharing my latest findings on an intervention for empowering youth in the digital age, a topic of relevance and importance in our rapidly evolving world. I am privileged to have the opportunity to share my expertise and insights with the audience, and I look forward to an engaging and enlightening discussion.

**Cecilia Cheng**

*Cecilia Cheng*

# KEYNOTE PRESENTATIONS

JUNE
19-20, 2024

IN-PERSON

DAY-01

**Abbey Robin Durkin**

YCO and IMHPJ
Japan

## Adaptations of early intervention protocols for acute stress disorder: Methods of deployment for disaster areas in Japan

**Abstract:**

I will review the core concepts of Early Intervention, Acute Stress Disorder, and Prolonged Exposure Therapy. Comparative analysis of these protocols have shown efficacy in both preventing and ameliorating the distress associated with traumatic events. I will discuss ways to adapt theses protocols to Japan. Special attention will be paid to the victims of the recent Noto earthquake, including citizens impacted, the needs of first responders, improved government support options, and psychological needs of the reconstruction teams. This presentation will highlight the need for delivery of time sensitive and high quality psychological support in the aftermath of both man-made and natural disasters

### Biography

**Abbey-Robin Durkin** has completed her PhD at the age of 25 years from Palo Alto University and Stanford University. After serving as the Chief Psychologist for the Defense Attache Service (Diplomatic Service), she relocated in 2022 to fully devote herself to improving mental health care in Japan. She is the Vice President of International Mental Health Professionals of Japan, and the Vice President of Yokohama Counseling Office. As a practicing psychologist, she provides services to expats, Japanese citizens, and US government and military affiliated personnel and their families across the nation, virtually and in person

**Yueqin Huang**

Peking University
China

## Epidemiological burden of mental disability in China

**Abstract:**

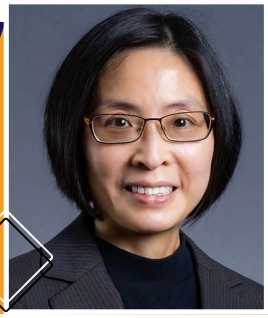
China Mental Health Survey is the first nationwide representative cross-sectional epidemiological study on mental disorders in China. The survey subjects were community residents aged 18 years and over. Using complex sampling methods with stratified multistage unequal probabilities, 32552 respondents were selected from 1256 village committees or neighborhood committees among 157 disease surveillance points in 31 provinces, municipalities or autonomous regions of China. Mental disorders were diagnosed and classified according to the Diagnostic and Statistical Manual of Mental Disorders- Fourth Edition (DSM-IV), and the grades of six domains of functional impairment were assessed by World Health Organization Disability Assessment Schedule 2.0 (WHODAS 2.0). The prevalence of disability of any mental disorder among mood disorder, anxiety disorder, substance-use disorder, intermittent explosive disorder and eating disorder was 2.84% and the disability rate among patients was 31.95%. In Chinese community, the prevalence of mental disability and disability rate among patients comorbid physical diseases among the five types of mental disorders are the highest, while the severity of disability caused by five types of mental disorders are mild. The risk factors of mental disability and disability are mainly mental disorders, followed by physical diseases, and the protective factors are socio-demographic factors; among mental disorders, depression plays the first role in the severity of disability. It should be paid attention to disease burden of mental disability in China.

### Biography

**Yueqin Huang** got her Bachelor of Medicine, Master of Epidemiology, and PhD of Psychiatry and Mental Health form Peking University. She is a psychiatric epidemiologist and the director of the Division of Social Psychiatry and Behavioral Medicine in Institute of Mental Health of Peking University. She is the vice-president of China Association of Rehabilitation of Disabled Persons, and the Executive member of Rehabilitation International and the chair of Commission of Health and Function. She is principal investigator of a series of research projects and international collaborations. She has published 383 papers in academic journals and is editor-in-Chief of eleven books.

**Cecilia Cheng**

University of Hong Kong
Hong Kong



## Digital Netizen Alliance (D.N.A.) Program: Empowering youth in the digital age

**Abstract:**

In this keynote speech, the transformative power of the Digital Netizen Alliance (D.N.A.) Program in empowering youth in the digital age is highlighted. By delving into the program's innovative strategies and empowering elements, attendees will gain valuable insights into how the D.N.A. Program equips young participants with crucial skills to prevent gaming disorder (GD) and foster their mental wellness. Grounded in gamification and positive psychology principles, the D.N.A. Program offers a comprehensive and holistic approach to addressing the challenges posed by excessive gaming. Through engaging and interactive modules, participants are guided to cultivate four key positive skills: psychological resilience, active coping, growth mindset, and emotion regulation. The keynote speech will shed light on the program's transformative impact on youth. Attendees will discover how the D.N.A. Program revolutionizes digital engagement by promoting responsible digital citizenship, empowering youth to navigate the digital landscape with resilience, wisdom, and a balanced approach to their mental well-being. By uncovering the program's key components and showcasing its effectiveness, this keynote speech emphasizes the potential of the D.N.A. Program to shape a future where youth thrive in the digital age. It offers attendees a unique opportunity to explore the innovative strategies employed within the program and understand how they can be implemented in various contexts, such as communities, schools, and homes. By equipping youth with the necessary skills and knowledge, we can foster a generation of responsible digital citizens who navigate the digital landscape with resilience, balance, and overall well-being.

### Biography

**Cecilia Cheng** is a professor of psychology at the University of Hong Kong. She specializes in personality, social, health, applied, cross-cultural, and cyber-psychology. She is an elected Fellow of the Association for Psychological Science (APS) and has served as the board secretary of the International Council of Psychologists (ICP). She received the Fulbright Senior Scholar Award, Cambridge Hughes Hall Fellowship, ICP Early Career Research Award, and Humanities and Social Sciences Prestigious Fellowship of the Research Grants Council (RGC). Professor Cheng's research team seeks to enhance both mental and physical health for quality living for Hong Kong people.

**Anat Achiron**

Tel Aviv University
Israel

## Craniosacral therapy to reduce spasticity: Lessons learned in multiple sclerosis

**Abstract:**

**Introduction:** Spasticity is one of the major components of upper motor neuron involvement in people with multiple sclerosis (PwMS) and is known to affect between 40% -70% of patients over time. Craniosacral Therapy (CST) is a non-invasive treatment involving light-touch manual therapy to achieve muscle relaxation and is known to have robust effects to reduce chronic pain, but the effects on spasticity have not been studied.

**Objectives/Aims:** To assess the effects of CST for the treatment of spasticity in PwMS.

Methods: Lower limb spasticity was assessed using the MytonPro® device before and after CST treatment. The CST protocol was designed to release restrictions of the cervical and thoracic spine using standardized 2-hands application of gentle traction, release, and unwinding techniques. Deep, sliding, and gentle pressure was applied for 45 min along the spine. Myometric oscillation frequency, stiffness, decrement, and relaxation recovery time were measured in the rectus femoris, vastus lateralis, vastus medialis, and gastrocnemius, at the central point of each muscle. The percent change in spasticity variables was calculated as the difference between before and after CST adjusted to the baseline measurement. Data was analyzed by Phyton software.

**Results:** 15 PwMS, 9 females, mean±SD age 48.1±13.90 years, disease duration 12.8±11.67 years, median disability by the EDSS score 4.0, pyramidal functional system score 2.0, were included in the study. After CST we observed a decrease in spasticity variables in the vastus lateralis, gastrocnemius and rectus femoris. The percent decrease for myometric oscillation frequency was in the range of -0.47 to -4.41%, for stiffness in the range of -1.05 to -6.29%, for decrement in the range of -1.2 to -5.85%, and for relaxation recovery time in the range of -1.01 to -4.97%.

**Conclusion:** Our findings support CST as treatment to reduce lower limb associated spasticity for MS patients.

## Biography

**Anat Achiron,** MD, PhD, is a full Professor of Neurology at the Faculty of Medicine and Sagol School of Neuroscience, Tel-Aviv University and the founder director of the Multiple Sclerosis Center at the Sheba Medical Center, Tel-Hashomer, Israel. Prof. Achiron leads a holistic multidisciplinary approach targeted at the diagnosis, treatment and rehabilitation of patients with multiple sclerosis and her clinical and research team is fully integrated into activities aimed to advance the science and quality of life of patients with multiple sclerosis. Prof. Achiron's research interests are within the fields of neuroimmunology, and rehabilitation. She has extensively studied multiple sclerosis to better understand disease-related mechanisms using gene expression technology and characterized cognitive performance especially in the very early stages of the disease as well as evaluated gait performance associated with disability. Prof Achiron was involved in research studies evaluating genetic markers associated with the diagnosis of multiple sclerosis, relapse activity and prediction of immunomodulatory treatment response and currently is developing a new rehabilitation approach to assess spasticity and gait impairments in multiple sclerosis. Prof. Achiron has published widely, with over 300 publications to her name; shehas received numerous grants and scientific awards for her research work in medicine and neurology.

# ORAL PRESENTATIONS

JUNE
19-20, 2024

IN-PERSON

DAY-01

**Lui Wai Kin**

Hong Kong Shue Yan University
Hong Kong

# Mediation role of sexual aggressive fulfilment expectancy in the relationship between trait aggression and problematic online adult pornography use: A cross-cultural study

**Abstract:**

The high prevalence of online adult pornography (OPA) use and problematic online adult pornography use (POAPU) necessitates the need to investigate the risk factors for related prevention and intervention development. The potential role of aggression in the development of problematic pornography use has been documented, yet the underlying mechanism is still unclear. This study adopts the Interaction of Person-Affect-Cognition-Execution model to examine the relationships among trait aggression and POAPU, sexual aggressive fulfilment porn use expectancy (SAF), with further cultural and gender considerations. A total of 1977 Chinese participants residing in mainland Chinese (42.0% male), and 1396 American participants resided in the United States (63.5% male) completed an online survey. Their age ranged from 18 to 65 years old (M = 39.32, SD = 11.43). The estimated prevalences of POAPU was 52.4% for Chinese males, 40.3% for Chinese females, 71.9% for US males, and 70.5% of US females. Results showed that trait aggression was related to POAPU for Chinese and US male, but not US female participants. In addition, SAF partially mediated the relationship between trait aggression and POAPU in the Chinese sample, and fully mediated the relationship in the US male sample. The findings suggest the underlying psychological mechanisms vary between trait aggression and POAPU, and relevant cultural and gender factors. Psychoeducation on appropriate attitude and self-regulation for OAP use, as well as anger coping strategies specifically to lower aggression-driven OAP use may be useful in tackling the increasing prevalence of OPA and POAPU.

## Biography

**Lui Wai Kin** is studying for a master's degree in psychology under the supervision of Prof. TANG, So-Kum Catherine at Hong Kong Shue Yan University. His research interests include behavioral addiction, meaning in life, and mental health disparities in sexual minorities.

**Vaidya Bala**

Wollongong Hospital
Australia

## Rehabilitation of Movement disorders: A practical experience

**Abstract:**

Movement disorders rehabilitation has evolved over 2- 3 decades harnessing the principles of Neuroplasticity with specific goal directed functional intervention in a timely manner. The duality of bradykinesia with hyperkinetic movements associated with motor control deficits results from neuroanatomical overlay resulting in significant medical, physical, functional, and psychosocial impairments and disabilities. The key framework that guides the principles of Movement rehabilitation relies on neuroplasticity retraining to maintain bodily structure and function. In the past the main objectives were medication management followed by supplementation of physical therapy as a monodisciplinary with lack of coordinated care. In the last few decades, plenty of evidence points to a well-structured integrated coordinated care to achieve best outcomes in patients with Movement disorders. It is with this in mind; our local health district commissioned a specialized Movement assessment pathway program with a multidisciplinary integrated assessment of patients with Movement disorders which works in close collaboration with Neurology specialist and family physicians to bridge the gap and to maximize patient centered outcomes. I would like to share my personal evidence based practical experience that I have gained in my clinic to the wider scientific medical community and encourage the centers around the globe to set up a similar and even better integrated assessment to benefit patients with Movement disorders.

### Biography

**Vaidya Bala** is a Senior Staff specialist in rehabilitation Medicine currently working at The Wollongong Hospital which is part of the Illawarra and Shoalhaven Local health district Hospital in the city of Wollongong, New South Wales, Australia. He is currently the head of the Movement assessment program which provides an integrated assessment for Movement disorders and a clinical lead in neurological Rehabilitation for the district. Dr Bala has recent papers on his Novel model of care in Movement assessment program was published in the Movement disorder journal September 2023 and he presented at the conference at International Movement disorder in Denmark 2023. Dr Bala is a Fellow of the Australian Faculty of Rehabilitation Medicine and an honorary Fellow of the European Stroke council and Associate Fellow of the Royal Australian College of Medical Administrators.


## Helen Sin Hang Kwok

Hong Kong Shue Yan University
Hong Kong


# From grandparents to parents: Understanding the transmission of resilience in ASD families


### Abstract:

Autism Spectrum Disorder (ASD) is a neurodevelopmental disability that professionals can detect at increasingly younger ages. Research suggests that parents caring for children with ASD experience significant pressure. These parents may face internal struggles alongside managing external disruptive behaviors exhibited by their children. This study employed a mixed method with a focus group format, incorporating a family resilience scale and an intergenerational solidarity scale measure. Participants included grandparents and parents living with children diagnosed with ASD. The results of this study will contribute to our understanding of how family resilience is transmitted across three generations within families facing ASD. This research also holds the potential to provide valuable insights for developing a theoretical framework that promotes resilience in families with ASD.


### Biography

**Helen Kwok** is a registered counselling psychologist in Hong Kong with extensive experience working with children, youth, and children with special needs. Currently pursuing her Ph.D., her research interests lie in family resilience, particularly intergenerational family resilience and international solidarity. Ms. Kwok utilizes families living with Autism as a case study to explore these concepts. She also holds the position of Assistant Director and Research Associate at the Mrs. Dorothy Koo and Dr. Ti-Hua Koo Center for Interdisciplinary Evidence-based Practice and Research at Hong Kong Shue Yan University

**Rui Mou Xie**

Tsinghua University
China

## Effects of soft exoskeleton for gait training on clinical and biomechanical gait outcomes in patients with Sub-Acute stroke

**Abstract:**

The objective of this study was to assess the therapeutic effects of Soft-Exoskeleton (SE) assisted walking training on clinical and biomechanical gait outcomes in the rehabilitation of patients with subacute stroke.

**Methods:** A group patients who had experienced subacute stroke received conventional rehabilitation (CR) training combined with 10-session SE-assisted walking training (30 min/session, 5 sessions/week, 2 weeks) (SE group, n=19) compared with the control group that received CR training only (CR group, n=18). Clinical assessments and biomechanical gait measures were performed pre- and post- 10-session intervention, with the 10-Minute Walk Test (10MWT) and 6-Minute Walk Test (6MWT) used to define the primary clinical outcome measures and the Functional Ambulation Category and Fugl-Meyer Assessment for Lower Extremity (FMA-LE) subscale defined the secondary outcome measures. The gait quality outcome measures included spatiotemporal parameters, symmetry indexs, range of joint motions during walking.

**Results:** After the 10-session intervention, the SE and CR groups exhibited significant improvements in all clinical outcome measures ($P < 0.05$). Between-comparison using covariance analyses demonstrated that the SE group showed greater improvement in walking speed during the 10MWT ($P < 0.01$), distance walked during the 6MWT ($P < 0.05$), and FMA-LE scores ($P < 0.05$). Gait analyses showed that the SE group exhibited significantly improved spatiotemporal symmetry ($P < 0.001$) and maximam rang of ankle motion ($P < 0.05$) after 10-session training, with no significant changes observed in the CR group.

**Conclusions:** Compared with CR training, SE-assisted walking training led to greater improvements in walking speed, endurance, and gait quality.

### Biography

**Rui Mou Xie** has completed his Master degree (Physiotherapy) at the age of 29 years from Cardiff Universit, UK. He is the head of the Musculoskeletal and Gait treatment unit at the Rehabilitation Medicine Department of Beijing Tsinghua Changgung Hospital. He has published 5 papers in reputed journals and served as the principal investigator or main investigator for 5 national research project.


## Tang So Kum Catherine

Hong Kong Shue Yan University
Hong Kong


# Family Resilience, Caregiver Burden and Work-Family Conflict among Hong Kong Chinese working parents


**Abstract:**

The present study is a part of a larger study guided by the Integrated Dynamic Psycho-socioecological Life Course (IDSEL) model of resilience to investigate human adaption to life transitions from early to late middle adulthood. The present study focused on the role of family resilience in coping with competing demands of caregiving and work among dual-earner families in an urban city. A total of 1008 Chinese working parents (355 fathers and 653 mothers) completed a survey. Participants were on average 38.61 years old and had 2 children. Compared to working fathers, working mothers reported higher levels of family resilience and caregiver burden. There was no gender difference in the level of work-family conflict. Bivariate correlation results indicated that higher levels of work-family conflict were related to higher levels of caregiver burden but lower levels of family resilience, and the latter two variables were negatively correlated with each other. Preliminary multiple regression analyses showed that age and gender moderated the associations among work-family variables, and these study variables accounted for 54.7% of the variance in work-family conflict. For working fathers, high levels of work-family conflict were best predicted by high levels of caregiver burden and their older age. For working mothers, high levels of work-family conflict were best predicted by high levels of caregiver burden, followed by low levels of family resilience, and then their younger age. Preliminary findings call for efforts in reducing caregiver burden and cultivating family resilience to cope with competing work-family demands, especially among young working mothers.


## Biography

**Tang So Kum Catherine** is a Distinguished Professor in Psychology at the Hong Kong Shue Yan University. She is an active researcher with over 300 academic publications in prestigious and reputable peer-reviewed journals, books/book chapters and academic conferences proceedings. Her research interests include human resilience and adaptation, behavioral addiction, violence against women and health psychology. Professor Tang has been listed in the world's top 2% most cited scientists by Stanford University in 2021, 2022, 2023, and 2024.

**Joni Micael Bento Ledo**
University of Beira Interior
Portugal

## Systematic literature review: Poverty in Roma communities and their psychosocial health

**Abstract:**

This Systematic Literature Review (SLR) was guided by the PRISMA 2020 criteria. The aim of this study is to make a diagnosis of the psychosocial health and needs of the Roma Community living in poverty. The articles were searched in the Scopus and Web of Science databases. The inclusion criteria are based on the PICO guidelines without the inclusion of the "comparison" criterion as it is not mandatory for the studies to establish a comparison between groups. The risk of bias of the articles was analyzed through the JBI and with the GRADE system. Eleven studies were included, 5 exclusively Roma community and 6 contain diverse samples, with a total of 13.222 participants from the Roma community. Most of the studies indicate that the Roma community has more psychosocial health problems when compared to the majority groups and show an internalization of social stigma on the part of the communities. The study's limitations were mainly due to the scarcity of research on this subject, particularly in the field of psychology. This study aims to contribute to more research being carried out with these populations, so that we can fight against the invisibility of these communities. This SLR is registered with PROSPERO Registration: CRD42023476860.

### Biography

**Joni Ledo, PhD** student in Clinical and Health Psychology at the University of Beira Interior. He has a degree in Psychology and Economics and a Master's degree in Educational Psychology. He is a research fellow by the Foundation for Science and Technology of Portugal (FCT), grant number 2023.01027.BDANA. Member of the organizing committee of the 2nd and 3rd International Conference on Clinical and Health Psychology at the UBI. He was an advisor to the Portuguese Parliament. He has an article published in the scientific journal PsychTech & Health Journal 2020, vol. 3, and n. 2, pp. 3 - 14.

**Yu Pan**

Tsinghua University
China

## Effect of Brain-Computer interface and Robot-Aided rehabilitation in stroke patients with the foot drop

**Abstract:**

The foot drop in stroke patients is one of the most impotent interfering factors for ambulation recovery. The objective is to explore the effect of Brain-Computer Interface (BCI) and Robot-Aided Rehabilitation on foot drop in stroke patients.53 stroke patients with foot drop were randomly assigned to the BCI group(n=27) or control group(n=26).The BCI group performed four weeks of training with BCI and a robot-aided device, and the control group received four weeks of Robot-Aided ankle stretching training. After training, two groups showed significantly within-group improvements in dorsiflexor muscle strength, dorsiflexion passive dorsiflexion ranges of motion , Modified Ashworth Scale, Assessment of Lower Extremity (FMA-LE), Berg Balance Scale (BBS), and Modified Barthel Index. The between-group comparison showed the BCI group significantly improved ankle dorsiflexion muscle strength, FMA-LE, and BBS compared with the control group. (Change Δ=Post-Pre, BCI vs the Robot-Aided training: 3.77±3.50 vs 1.69±3.00; 5.74±3.89 vs 2.65±2.31; 8.59±6.20 vs 4.69±4.13, P=0.024, 0.010, and 0.001 respectively). Compared with the Robot-Aided ankle stretching training, the BCI of the ankle provided significant improvements in the active ankle property, the motor function of lower limb, and balance post-stroke.

### Biography

**Yu Pan** has completed her MD at the age of 32 years from Captial Medical University in Beijing. She is the director of department of Physical Medicine and Rehabilitation of Beijing Tsinghua Changgung Hospital. She has published more than 30 papers in reputed journals and has been obtained eight fundings supported.

**Robin E Gearing**

University of Houston
USA

# The Evolution of the Assisted Outpatient Treatment (AOT) Program: Strengthening an Evidence-Based outpatient treatment for Non-Adherent adults with a Serious Mental Illness (SMI)

**Abstract:**

Assisted Outpatient Treatment (AOT), also referred to as outpatient civil commitment, is a court-mandated program designed to motivate adults with a serious mental illness (SMI) who have challenges with voluntary treatment adherence and engagement. AOT programs are designed to focus the attention of treatment providers and those they serve on the importance of keeping participants engaged in ongoing and effective treatment. AOT programs are designed to reduce repeated emergency psychiatric care usage and decrease justice system involvement resulting from untreated mental illness while promoting treatment engagement and long-term recovery for those with SMI and/or substance use disorders. Research has found AOT programs to be effective in reducing hospitalizations and justice involvement. Yet, concerns have been raised, including limiting individual autonomy and self-determination and overrepresentation of individuals from minority backgrounds. This presentation details the evolution and implementation of the AOT Houston Model. This innovative model builds on AOT strengths and addresses limitations. The Houston AOT Model has five goals guided by the core tenets of client empowerment and self- determination. This Model prioritizes six elements including housing, employment, access to public benefits, transportation, service continuity, and care coordination/communication. The AOT Houston program offers the opportunity to address existing concerns while maximizing treatment benefits for individuals who have not responded to traditional mental healthcare. Implications for practice, policy, and research are presented with strategies for successful implementation of comprehensive AOT programs in other jurisdictions.

## Biography

**Robin E. Gearing** is a Professor and the Director of the Center for Mental Health Research and Innovations in Treatment Engagement and Service (MH-RITES) at the University of Houston. Dr. Gearing's research focuses on improving the mental health outcomes of individuals with SMI. His research is driven by an interest in informing and improving engagement and adherence to empirically-supported treatment, and developing evidence-based interventions. Dr. Micki Washburn is a mental health/substance use researcher and Assistant Professor at the University of Texas at Arlington. Dr. Jamison V. Kovach is an Associate Dean and Professor at the University of Houston.

**Micki Washburn**

University of Texas at Arlington
USA

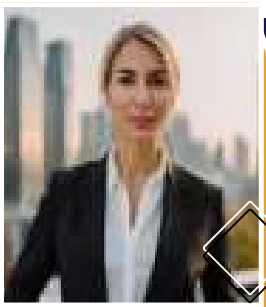
## Enhancing justice system and mental health outcomes in high need populations through the use of multisystem liaisons

**Abstract:**

Assisted Outpatient Treatment (AOT) is a civil commitment program which incorporates intensive case management and other services to support adults with a serious mental illness. The overarching goal of AOT is to minimize participants' use of emergency psychiatric care and involvement in the justice system, while increasing their use of community-based care. This program requires effectively navigating several public systems such as the healthcare and court systems, which can be a challenge for both patients and participating agencies. All too often programs such as AOT involving multiple agencies and systems often fail due to lack of coordination, poor communication, increase system burden and/or competing expectations. Thus, in order to more effectively support high need clients at risk of ongoing justice system involvement, the Houston AOT program incorporated the use of a multisystem liaison to coordinate referral to and enrollment in the AOT program. This professional worked closely with providers at local psychiatric hospitals, psychiatrists and care coordinators at the local public health authority and the local probate court Judges and their staff handling civil mental health commitments. Through the implementation of this innovative approach to service coordination, the referral and enrollment process for the Houston AOT program was streamlined and additionalprovider burdens related to hospital and court documentation requirements were significantly reduced. Recommendations for integrating a liaison into joint mental health/court sponsored programs or other programs involving multiple agencies or systems will be presented to support improved client outcomes.

### Biography

**Micki Washburn** is a faculty member at the University of Texas at Arlington. Dr. Washburn frequently integrates aspects of technology into her scholarship and has expertise in VR development and telehealth. Her current research focuses on the development of innovative culturally grounded interventions for individuals experiencing co-occurring mental health and substance use disorders. Dr. Robin E. Gearing is a Professor and the Director of the Center for Mental Health Research and Innovations in Treatment Engagement and Service (MH-RITES) at the University of Houston. Dr. Jamison V. Kovach is an Associate Dean and Professor at the University of Houston.




## Candace Coleman

Yokohama Counseling Office
Japan


# Complex Post-Traumatic Stress Disorder: Epidemiology and Treatment Considerations


### Abstract:

I will review the new ICD-11 Complex PTSD criteria and will discuss how childhood trauma can contribute to a C-PTSD presentation. I will examine domestic violence in Japan as a working model for how C-PTSD can develop and will discuss treatment strategies based on initial research evaluating treatment protocol for C-PTSD.


### Biography

**Candace Coleman** completed her BA and MD at Brown University and her MPH at Johns Hopkins Bloomberg School of Public Health. She has worked as the Integrative Medicine Program Director for a clinic prior to coming to Japan. She is currently practicing as Chief Medical Officer and therapist for a mental health clinic in Tokyo.

**Pei Chun Li**

Weifang Traditional Chinese Medicine Hospital
China

# Local injection of botulinum toxin type A in the treatment of thalamic ataxia syndrome: A Case Study

**Abstract:**

**Objective:** To observe the effect of local injection of botulinum toxin type A on a patient with thalamic ataxia syndrome.

**Methods:** Botulinum toxin type A was injected into the upper limb of the patient. The injection muscles included deltoid, biceps, flexor carpi radialis, flexor carpi ulnaris, pronator teres, extensor carpi radialis, and flexor superficialis. intramuscularly, the total injected dose is 130U. The International Cooperative Ataxia Rating Scale (ICARS) Fugl-Meyer Assessment Upper Extremity Scale (FMA-UE)and Modified Barthel Index (MBI) were evaluated before injection and 3 weeks after injection.

**Results:** After 3 weeks of treatment, the patient's International Cooperative Ataxia Rating Scale (ICARS) decreased by 8 points, Fugl-Meyer Assessment Upper Extremity Scale (FMA-UE) increased by 6 points, and the Modified Barthel Index increased by 9 points.

**Conclusion:** Local injection of botulinum toxin type A into the muscles related to the upper limb of the affected side can significantly improve the motor control of the upper limbs of patients with thalamic ataxia, improve the activities of daily living of the patients, promote the recovery of the patients, and help the patients return to their families and society, But more cases and systematic curative effect evaluation are needed.

## Biography

**Pei Chun Li** earned his master's degree in rehabilitation medicine and physiotherapy from Jiamusi University in 2010. He currently serves as the Director of the Department of Physical Medicine and Rehabilitation at Weifang Traditional Chinese Medicine Hospital in Shandong, PRC. With a robust academic background, he has authored nearly 20 papers in reputable academic journals and holds the position of Editor-in-Chief for two medicine industry books.

**Kangwei Shen**

Southeast University
China

## Characteristics of HPA and ANS bio-marker changes during Group-Based social skills training in community for children with autism

**Abstract:**

Autism Spectrum Disorder (ASD) is a neurodevelopmental disorder characterized by difficulties in social interaction, communication challenges, and repetitive behaviors. Behavioral Interventions is an important component of autism treatment. Existing evaluation methods for early behavioral interventions in autism primarily rely on scales, the involvement of neurochemical methods is relatively limited. The HPA axis regulates the body's response to stress and plays a key role in the regulation of various physiological processes, including metabolism, immune function, mood, and sleep. The autonomic nervous system controls involuntary bodily functions, such as heart rate, digestion, respiratory rate, and pupillary response. Due to factors such as developmental delay, research has shown differences in the HPA axis and autonomic nervous system between children with autism and typically developing children. This study assesses the efficacy of interventions for autism spectrum disorder by monitoring representative biomarkers of the HPA axis and autonomic nervous system (ANS). Through this, it aims to understand the neurophysiological changes associated with comprehensive motor training in children with ASD. Saliva and urine samples were collected from the intervened children, and levels of cortisol and monoamine substances were measured to determine. It was found that these indicators were changed over the course of the intervention, and in the direction of the healthy control group.

### Biography

**Shen Kangwei,** 33 years old, is a doctoral student at the School of Biological Science and Medical Engineering, Southeast University.

**Yan Yan**

Southeast University
China

# The impact of Sweet-Flavored cigarettes on cognitive function and stress relief in smokers

**Abstract:**

It is well known that sweet flavors can relieve stress and make people feel relaxed and happy, which has been confirmed in a large number of studies on the psychological and emotional changes brought about by chewing gum, sweet-flavored cigarettes can bring about the same experience similarly. To describe the effects of sweet-flavored cigarettes on smokers' cognition and mood, salivary cortisol (a biomarker of the hypothalamic-pituitary-adrenal axis) and alpha-amylase (a biomarker of the autonomic nervous system) were determined in saliva samples collected from 37 volunteers, who were recruited to complete 20 three-digit addition and subtraction mental arithmetic problems in 10 minutes while smoking sweetened and unsweetened (another day, same period) cigarettes. Four saliva samples were collected at four-time points (basal point, after-smoking, 10-minute resting, and 20-minute resting). Salivary cortisol was analyzed by nanofiber solid-phase extraction combined with high-performance liquid chromatography-mass spectrometry (HPLC-MS), and α-amylase was analyzed by a flow injector developed by our research group. The area under the concentration-time curve (AUC) was used as a statistical calculation parameter. It was found that cigarettes fortified with sweeteners improved smokers' cognitive abilities, increased their efficiency in dealing with work tasks, and relieved smokers' psychological stress in real time.

**Biography**

**Yan Yan** is currently a PhD student at the School of Public Health at Southeast University, specializing in Nutrition and Food Hygiene. Her primary research interests focus on the development of nanofiber solid-phase extraction materials and their applications in detecting metabolites in biological samples

**Hai Zhao**

Southeast University
China

# Histidine: A potential biomarker of mental activity

**Abstract:**

IHistidine is a precursor to the synthesis of histamine, which plays an important role in the central nervous system and is involved in a variety of brain function regulation processes, such as learning, memory and sleeping. In recent years, histidine is often used as a means of early diagnosis and evaluation of clinical treatment of related diseases, such as Parkinsonism. The research group of the author focused on the relationship between individual mental activity and histidine in non-invasive samples, and mainly carried out three studies: (1) College students were recruited for psychological stress test of keynote speech, and the salivary histidine levels of subjects in the speech group changed after stress. The results of state-trait anxiety scale showed that the change rate of histidine increased significantly with the increase of anxiety state. (2) College students were recruited for stress test of running. The analysis of histidine concentration in saliva samples showed that there was a signigicant positive correlation between histidine and running duration at a certain running distance, which on the other hand confirmed histidine as a potential biomarker to evaluate sports performance. (3) Volunteers were recruited to carry out an evaluation experiment on cigarette smoking sensation. The area under the histidine concentration time curve (AUC) after smoking was used as the evaluation index. The AUC of saliva histidine in group of flue-cured cigarettes was higher than that in the mixed cigarette group. These results suggest that histidine has the potential to become a new biomarker for mental activity.

## Biography

**Hai Zhao** is currently a PhD student in School of Biological Science and Medical Engineering in Southeast University, specializing in Biomedical Engineering. His primary research interests focus on detecting of amino acids, vitamins and their metabolites in biological samples.

**Reza Noktehsanj**

Ardabil University
Iran

## Fixation of depressed posterolateral tibial plateau fractures using a direct lateral approach

**Abstract:**

Fixation of plateau posterolateral fracture (PPLfx) is challenging because the fracture site is mostly covered by vital neurovascular structures. We operated on 15 cases of PPLfx using a direct lateral approach. Between 2017 and 2019, 15 cases of PPLfx were fixed with a direct lateral approach and a tricortical autologous bone graft from the iliac crest. A depression of more than 2 mm was indicated for the surgical treatment. Clinical evaluation included Lysholm score, International Knee Documentation Committee Score (IKDC) score, and Tegner activity scale. The last follow-up was at 24 months after the operation. The mean postoperative Tegner activity scale did not change significantly compared to before the injury (6.5 (6–7) vs. 7 (6–8, $p = 0.5$)). The postoperative IKDC and Lysholm scores improved significantly compared to before the operation ($p < 0.001$). The full range of motion was seen in all patients except one who was manipulated after three months. Surgical treatment using a direct lateral approach is a safe procedure for PPLfx that results in good, short-term clinical and radiologic outcomes without fibular osteotomy or compromising the important neurovascular structures. This study offers a less invasive with better exposure and direct reduction of the fracture fragments in PPLfx. The advantages of the presented lateral approach include a direct vision for anatomic reduction, the ability to dispense with fibular osteotomy, and the preservation of soft tissue around the posterolateral corner of the tibia plateau.

### Biography

**Reza Noktesanj** is an Assistant Professor at Ardabil University of Medical Sciences, Iran. He is an orthopedic surgeon and knee fellowship. Additionally, Dr. Noktesanj serves as the Education Deputy at Ardabil University of Medical Sciences.

# POSTER PRESENTATIONS

JUNE
19-20, 2024

IN-PERSON

DAY-01

**Lee Mei Chi**

Tzu Chi University
Taiwan

## The effect of Far-Infrared radiation on low back pain and skin surface temperature

**Abstract:**

Lower Back Pain (LBP) has been one of the leading causes of disability and remains a significant global public health concern. The discomfort of the waist often due to lower back pain. Far-Infrared Radiation (FIR) is a low-energy therapy, where the Infrared Radiation (IR) is an invisible electromagnetic wave with a defined wavelength region of 0.75–1000μm on the light spectrum. This study investigates the effects of FIR on the Waist Skin Surface Temperature (WSST), and Autonomic Nervous System (ANS) activity to evaluate its effectiveness in reducing LBP. A single group pre and posttest study was designed. Subjects (n=30) over 20 years of age and satisfying the inclusion criteria were selected. Subjects received 40 minutes far-infrared radiation on their backs. The WSST, autonomic nervous activity, and pain intensity were assessed. The results showed skin surface temperature at the waist increased from 34.33 ± 0.19 °C to 39.03 ± 0.11 °C (P=.001). The ANS Low-Frequency (LF) activity showed a statistically significant decrease (P=.001) and the LF/HF ratio showed a statistically significant increase (P=.002). FIR significantly increased the WSST after 40 minutes' irradiation, which showed regulation of ANS activity and it has been shown to positively effect on pain control.

### Biography

**Chi** has completed her PhD at the age of 55 years from Institute of Medical Sciences, Tzu Chi University. She is dedicated to developing complementary therapies for pain relief.

**Yuan Ju Liao**

Asia University
Taiwan

## Effects of different intergenerational programs for older adult with dementia in day care centers: A Quasi-Experimental study

**Abstract:**

Intergenerational programs are structured interventions designed to facilitate interactions between younger and older adults. Involving adolescents in such activities has been shown to evoke positive emotions and increased engagement among older adults with dementia. This study employed a quasi-experimental longitudinal design to examine the comparative effects of exergame and companion interventions on cognitive function, verbal fluency, memory span, depressive symptoms, and attitudes towards children among dementia patients aged 56 to 91 across 13 adult day care centers in Northern Taiwan. Participants were assigned to 8-week exergame, 8-week companion, and control groups using a single-blind trial procedure. Post-intervention assessments were conducted within two weeks following the conclusion of the activities, with follow-up evaluations performed up to one-month post-intervention. Long-term effects were analyzed using Generalized Estimating Equations (GEE). The results indicated that companion interventions significantly improved cognitive function and memory span in older adults with dementia. While exergame interventions did not show immediate effects, they demonstrated delayed enhancements in verbal fluency, memory span, and attitudes towards children. Moreover, intergenerational programs facilitated increased interactions between older adults with dementia and adolescents through participation in emerging exergame activities, thereby enhancing cognitive function, verbal fluency, and fostering positive mutual attitudes.

### Biography

**Yuan Ju Liao** completed her Ph.D. in Nursing from National Yang-Ming Chiao-Tung University in Taiwan, focusing on the effectiveness of intergenerational programs for adolescents and older adults with dementia. Currently, she serves as a Postdoctoral Researcher at Asia University's Department of Nursing, where she continues to foster her expertise in quantitative, qualitative, and mixed methods research, as well as intervention in long-term care.

**Batool Abdulelah Alkhamis**

King Khalid University
Saudi Arabia

## A pilot study of interval walking effect on pain and Pro-Inflammatory level in people with knee osteoarthritis

**Abstract:**

Aerobic exercises may decrease pain and pro-inflammatory biomarker levels in people with knee osteoarthritis. Interval walking (IW) exercise may not induce a flare of KOA pain compared to continuous walking (CW). However, the long-term effect of IW exercise on pain, and pro-inflammatory biomarker levels has not been studied systematically. The aim of this study was to evaluate the effect of IW exercise on the pro-inflammatory biomarker levels compared to CW exercise. Eighteen participants were randomly assigned into an IW and CW group, and were asked to walk 3 times/week for 30 minutes over a 6-week period. The participants in the IW were asked to walk for 30 minutes with a resting interval of 30-40 minutes after the first 15-minute bout of the walking exercise. Pain level was assessed at baseline, post-intervention, and before and after each exercise session. Blood samples were collected at the baseline and post-intervention. The IW group showed significantly greater ($p<0.001$) improvement in changes of visual analogue scale pain score than that in the CW group. There was a significant decrease of the Measure of Intermittent and Constant Osteoarthritis Pain score in IW group ($p<0.05$) but not CW group. There was a significant decrease in pain level after each exercise session in the IW group ($p<0.05$) but not in the CW group. There were no significant changes of pro-inflammatory level in either group. There is a potential of an IW program for greater pain reduction than a CW program in people with KOA.

### Biography

**Batool Abdulelah Alkhamis** has completed her master's degree (2014) in the medical rehabilitation sciences at the University of Pittsburgh, USA. In 2022, she has completed her PhD from the University of Kansas Medical Center, USA. Currently, she is working as an assistant professor, and the medical rehabilitation sciences department chair at King Khalid University, Kingdom of Saudi Arabia.

**Li Chan Lin**

Asia University
Taiwan

## Using wayfinding to enhance fluid intake in institutionalized residents with dementia

### Abstract:

Approximately 50% of institutional residents exhibit insufficient fluid intake, with dehydration affecting 20-30% among them. Dehydration not only heightens the risk of urinary tract infections, delirium, and impaired wound healing but also accelerates cognitive decline in individuals with dementia and cognitive impairment. To address the complications arising from dehydration, it is essential to develop strategies aimed at effectively increasing fluid intake among institutional residents and reducing associated risks and comorbidities. This study investigates the impact of a "wayfinding" intervention on enhancing fluid intake among institutionalized individuals with dementia. Conducted as a quasi-experiment, the study involved 54 participants with dementia from five long-term care facilities in Taiwan. The experimental group underwent wayfinding intervention three times per week for 8 weeks, while the control group received routine care. Data collection occurred before and immediately after the intervention. ANCOVA analysis was utilized to examine any post-intervention benefits in both groups. Results: Following the intervention, the experimental group demonstrated significant improvements in fluid intake and total liquid consumption compared to the control group. Physiologically, the experimental group also exhibited significantly higher total body water levels than the control group. Conclusion: Wayfinding training enhances fluid intake and total body water among individuals with dementia, empowering them to independently locate and utilize water dispensers.

### Biography

**Li Chan Lin** earned her PhD from the University of Minnesota in 1993 and currently serves as the chair professor at Asia University. Dr. Lin's research focuses on institutional care for the elderly, with a particular emphasis on interventions to address problem behaviors in dementia patients and instrument development. She has authored over 100 papers in reputable journals and served as an esteemed editorial board member.

**So Young Lee**

Jeju National University
Korea

## Association between phase angle and physical function in patients with acute myocardial infarction

**Abstract:**

**Introduction:** The phase angle (PhA) of bioelectrical impedance is an important prognostic tool in clinical practice.

**Purpose:** The aim of this study was to evaluate the associations between PhA and physical function, including sarcopenia, cardiopulmonary function and arterial stiffness, in patients with acute myocardial infarction (AMI).

**Design:** A retrospective cross-sectional study.

**Methods:** We evaluated 66 patients with AMI who entered the Cardiac Vascular Center of this hospital to undergo percutaneous coronary intervention (PCI). Upon admission, the patients' demographic information was recorded. And, bioelectrical impedance analysis (BIA), brachial-ankle pulse wave velocity (baPWV), ankle-brachial index (ABI) and cardiopulmonary function test were performed within the 4 weeks after PCI.

**Results:** The mean age of participants was 63.59±11.63 years, 59(89.4%) were males and 7(10.6%) were females. Age, body mass index(BMI), Skeletal muscle mass index(SMI), peak oxygen consumption(VO2peak), oxygen consumption at anaerobic threshold(VO2AT), diastolic blood pressure at rest(DBPrest), rate pressure product(RPP), baPWV and ABI were significant correlation with PhA ($P < 0.05$) in male. In the multivariable linear regression in male, BIA-derived PhA was positively associated with VO2peak ($\beta = 0.493$, $P = 0.002$) and the SMI ($\beta = 0.433$, $P < 0.001$).

**Conclusion:** According to the present study results, the BIA-derived phase angle was positively associated with the cardiopulmonary function and sarcopenia in male patients with acute myocardial infarction.

### Biography

**So Young Lee** is the Director of Department of Rehabilitation Medicine in the Jeju National University Hospital, based in Jeju, South Korea. Professor Lee has published dozens of papers on the rehabilitation about musculoskeletal and stroke patients. After obtaining a doctor degree in medicine from the Jeju National University in 2009, she majored in rehabilitation medicine at the Jeju university hospital. Since she was appointed as a professor at Jeju National University Hospital in 2016, she lectures several times every year for the local residents and conducts research and educational activities on various topics.

**Ernesto Magallon Neri**
University of Barcelona
Spain

# Patterns of social media among colombian adolescents and emerging adults

**Abstract:**

**Objective:** To examine the effect of patterns of social media on psychopathological symptoms in a sample of Colombian adolescents and emerging adults. Method: 600 adolescents and emergent adults (females = 363) between 12 and 25 years of age (M = 17.58; SD = 3.28) enrolled in educational institutions participated. Patterns of social network use were assessed using the MULTICAGE-TIC social media subscale, and psychopathological symptoms were assessed using the SA-45 Symptom Assessment Questionnaire. Results: ANOVA analysis revealed significant differences (p = <.001) between patterns of social network use for general distress (F = 43.303) and all psychopathological symptoms: a) hostility (F = 19.866), somatisation (F = 18.650), depression (F = 35. 103), obsessive-compulsive (F = 36.198), anxiety (F = 33.338), interpersonal sensitivity (F = 43.048), phobic anxiety (F = 20.316), paranoid ideation (F = 45.064), psychoticism (F = 26.743). All effect sizes were moderate (ω2 = .061 - .131) except for somatisation (ω2 = .57). Post hoc analysis shows that general distress and all psychopathological symptoms statistically differ between the normative and problematic social media use groups. Discussion and conclusion: Adolescents and emerging adults with risky and problematic patterns of social media use show higher levels of general distress and symptoms of psychopathology in all categories. These findings provide evidence for the link between problematic social media use and mental health problems in adolescents and emerging adults and for the importance of identifying the transdiagnostic mechanisms that explain this relationship.

## Biography

**Ernesto Magallon Neri** is a PhD Prof. from University of Barcelona and clinical researcher at the Institute of Neurosciences UB. He is a member of GEIMAC (2021SGR01071) research group, and member of the executive committee of the SEAEP (Sociedad Española para el Avance de la Evaluación Psicológica). He has published diverse papers in scientific journals and has been serving as a revisor and editorial board member from some journals with impact factor JCR.

# KEYNOTE PRESENTATIONS

JUNE
19-20, 2024

VIRTUAL EVENT

DAY-02

**Jacques E Chelly**
University of Pittsburgh
USA

## Use of Nanocapacitor-Based technology for the treatment of musculoskeletal pain

**Abstract:**

Alternative and complementary technique are increasingly consider for the treatment of pain as an alternative to opioids and anti-inflammatory drugs to decrease the risk of addiction and side effects associated with the use of these drugs. The introduction of nanotechnology in medicine has led to the development of Nano-transporters allowing to prolong drug effectiveness and safety. It has also led to development of nanocapacitors based devices/patches. Evidence suggests that the use of nanocapacitors may represent an alternative to biological capacitor in the case of trauma local. Thus, it is well established that membranes maintain the electrical cellular equilibrium and that in case of trauma membranes are destroyed and the equilibrium is altered. This lead to decrease in local pH, increase inflammation and pain. 1-4 Evidence suggests that nanocapacitors devices/patches may play the role of an external capacitor and therefore allow to reduce pain. This hypothesis is supported by not only anecdotal reports of the effectiveness of the NeuroCuple™ device/patch (nCap Medical LLC; ;Heber City, Utah, USA) to reduce postoperative pain and opioid consumption following a unilateral total knee arthroplasty, but also the effectiveness of the Kailo™ device/patch (Kailo Labs LLC, Sandy, Utah, USA) to reduce pain and analgesic consumption in patients with chronic pain related to arthritis, neuropathy or radiculopathy pain, and myofascial or musculoskeletal pain or spasm at the level of the hands, feet, hips, knees, neck, shoulders, and back.

**Conclusion:** Recent progress in nanotechnology may also offer interesting alternative to the management of acute and chronic pain

**Biography**

**Chelly Jacques E** is an MD, PhD, MBA. He graduated from Medical School in 1976. He is Board Certified in Anesthesiology and Intensive Care from Paris France. He completed his PhD and MBA from the University of Houston, Tx. Currently he is Professor in the department of Anesthesiology and Perioperative Medicine and in the department of Orthopedic Surgery, University of Pittsburgh, Pittsburgh, PA, USA. He is the authors of over 225 peer review articles, 350 abstracts and has presented his work and research in over 200 national and international meeting. He edited or co-edited 8 text books.

**Ying Kong**

Central South University
China

## Role of primary cilia of chondrocytes under mechanical stimulation in osteoarthritis

**Abstract:**

Osteoarthritis (OA) is the most common joint disease that can cause pain and disability in adults. The main pathological feature of osteoarthritis is cartilage degeneration, which is caused by chondrocyte apoptosis, cartilage matrix degradation, and the destruction of inflammatory factors. Primary cilia are very sensitive to mechanical and physicochemical stimuli, are important structures involved in cell signal transduction, and may play an important role in the development of OA. It has been found that the morphology (location, length, incidence and direction) of the primary cilia of chondrocytes is related to OA, and the relevant signaling pathways in the process of OA can be regulated by the primary cilia. Low intensity pulsed ultrasound (LIPUS) is a commonly used clinical treatment for OA. Studies have found that LIPUS can activate TRPV4, regulate the inward flow of calcium, promote NF-κB into the nucleus, regulate the transcription of synthetic matrix genes, and play a positive role in OA. This suggests that LIPUS regulates the process of knee osteoarthritis in mice by mediating the TRPV4 channel through primary cilia. At the same time, moderate mechanical stimulation can inhibit the degradation of articular cartilage and apoptosis induced by il-1β, and moderate mechanical stimulation can affect the process of OA by participating in the regulation of calcium ions through primary cilia. These studies suggest that primary cilia of chondrocytes play an important role in the development of OA and may be a target for intervention.

### Biography

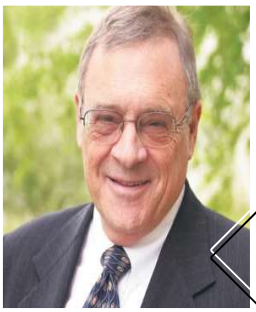
**Ying Kong** has completed his MD at the age of 36 years from Central South University. She is the director of department of Physical Medicine and Rehabilitation Department at the Second Xiangya Hospital, Central South University. She has published more than 10 papers in reputed journals and has been obtained seven fundings supported.

# ORAL PRESENTATIONS

JUNE
19-20, 2024

VIRTUAL EVENT

DAY-02



**Roger H. Coletti**

Georgetown University
USA

## Treatment of chronic muscle spasm and pain with the CMECD® procedure

**Abstract:**

It has been noted by multiple researchers that there is Spontaneous Electrical Activity (SEA) at painful trigger points. This author has studied chronic muscle spasm and found that SEA is always present and appears to be the cause for the chronic nature of muscle spasm. Chronic muscle spasm can last for years and cases where the spasm lasted for decades were not only found but successfully treated with the CMECD® procedure. This procedure consists of EMG guidance searching for the SEA and using a combination of phenoxybenzamine, Lidocaine and dexamethasone to extinguish the SEA. Large areas of muscle often need to be treated. Thanks to lidocaine acting as an antiarrhythmic, the SEA is extinguished within seconds and the phenoxybenzamine then takes over after about one hour. With the resolution of the SEA, the muscle can immediately relax. The phenoxybenzamine forms a covalent bond on the alpha motoneuron receptor and the result is a duration of action of 2-3 months. This is enough time for the muscle to recover the prolonged effect of ischemia resulting from the prolonged spasm. Muscles treated in this fashion need only a single injection. Recurrences are rare and only occur if there is a repeat overuse or traumatic injury. The CMECD® procedure is available for use by any medical caregiver that is licensed to give injections. The ability to permanently relieve chronic pain without the use of opioid drugs should prompt interest in this procedure.

### Biography

**Coletti** received a BA from Georgetown University College of Arts and Sciences. He received a Master of Arts from Hofstra University. He received his MD from State University of New York at Downstate. His medical internship and residency was performed at Nassau County Medical Center in East Meadow, NY. He did two years of cardiology fellowship at Columbia Presbyterian Medical Center in New York and then transferred to Westchester County Medical Center where he completed one year of Interventional Cardiology fellowship. He was awarded FACC, FASNC, and FSCAI fellowship status. Current interest is chronic muscle spasm and pain.


## Phoenix K. H. Mo

The Chinese University of Hong Kong
Hong Kong


# Intention to adhere to medication among Chinese hypertensive Patients: The application of the health belief model


**Abstract:**

Hypertension is a leading risk factor of mortality and primary cause of disability-adjusted life years. Adherence to hypertensive medication is an effective management of the disease for hypertensive patients. However, only half of hypertensive patients over the globe adhere to the medication. Few studies examined factors associated with medication adherence among Chinese hypertensive patients using a theoretical model. Utilizing the Health Belief Model, the present study examined factors associated with intention to adhere to hypertensive medication among Chinese hypertensive patients who had suboptimal medical adherence. A total of 523 hypertensive patients who had suboptimal medication adherence (scored <=7 out of 8 of the MMAS-8) were recruited from the community in Hong Kong and completed a cross-sectional telephone survey. Their intention to adhering to medication and variables related to Health Belief Model (i.e. perceived susceptibility and severity of hypertension, perceived benefits and barriers of adhering to medication, cues to action, and self-efficacy) were measured. Overall, 88.5% reported high intention to adhere to hypertensive medication in the coming year. Results from hierarchical regression revealed that after controlling for significant background variables, perceived severity ($\beta$ = .09, p<.05), perceived barriers ($\beta$ = -.15, p=.01), perceived benefits ($\beta$ = .27, p<.001) and self-efficacy ($\beta$ = .32, p<.001) were significantly associated with intention to adhere to hypertensive medication in the coming year. Interventions to promote medication adherence among hypertensive patients should highlight the consequences of hypertension and benefits of adhering to medication, remove barriers to medication, and increase their confidence in adhering to medication.


## Biography

**Phoenix Mo** obtained her Ph.D. in Applied Psychology from the University of Nottingham. She is a chartered psychologist of the British Psychological Society, a chartered scientist of the UK Science Council, and an Associate Fellow of the British Psychological Society and the Hong Kong Psychological Society. She is currently the Associate Professor of the School of Public Health and Primary Care and Director of the Center for Health Behaviours Research of the Chinese University of Hong Kong. She has published more than 180 papers from peer-reviewed journals.


## Joyce Lok Yan Poon

Pamela Youde Nethersole Eastern Hospital
Hong Kong


# Preoperative home visits by occupational therapists and higher premorbid activities of daily living independence level are associated with shorter length of hospital stay in primary total knee replacement patients: A retrospective study


**Abstract:**

The study aimed to identify preoperative patient-related sociodemographic factors that predict prolonged length of stay (LOS) following primary Total Knee replacement (TKR) at Pamela Youde Nethersole Eastern Hospital (PYNEH) in Hong Kong. 484 patients underwent primary TKR at PYNEH from July 2021 to October 2023 was retrospectively reviewed and 15 preoperative patient-related sociodemographic factors were recorded. The results showed that age, depression, and anxiety were positively correlated with LOS, while factors of accessibility of direct lift landing flat, availability of caregivers, provision of preoperative home visits by occupational therapists, and premorbid independence in activities of daily living (ADL) were negatively correlated with LOS. Multivariable linear regression analysis revealed that advanced age, absence of caregivers upon discharge, absence of preoperative home visits by occupational therapists, higher dependence in premorbid ADL, and higher depression scores accounted for 10.1% of the variance in LOS. Evaluating preoperative sociodemographic factors related to patients can help in preoperative assessments and discharge planning conducted by occupational therapists. Identifying high-risk patients who may require longer hospitalization enables proactive discharge planning using a multidisciplinary approach. Patients with higher premorbid ADL independence levels and those who receive preoperative home visits by occupational therapists tend to have shorter LOS. Yet, controlled clinical trials are needed for establishing causal relationships. In conclusion, understanding the preoperative patient-related sociodemographic factors that predict LOS can facilitate discharge planning. Maximizing patients' premorbid ADL independence through pre-habilitation and preoperative home visits by occupational therapists may help reduce LOS following primary TKR.


## Biography

**Poon** is an Occupational Therapist, working in an acute public hospital setting. She obtained her Bachelor of Science in Occupational Therapy from The Hong Kong Polytechnic University in Hong Kong in 2021. She is now studying at her final year of Master of Science degree in Stroke and Clinical Neurosciences from the Chinese University of Hong Kong. Her expertise lies in assisting patients to overcome physical challenges and improve daily living skills. Committed to holistic care, she works holistically to tailor rehabilitation plans that promote independence and well-being.


## Kadir Uludag

Shanghai Jiao Tong University
China


# Unveiling the Psychological potential of video creation chatbots


**Abstract:**

This paper delves into the unexplored realm of the psychological potential of video creation chatbots. As technology continues to advance, video creation chatbots have emerged as innovative tools for content creation, enabling users to generate personalized videos with ease. This study aims to uncover the various psychological impacts that these chatbots can have on users. By examining the cognitive, emotional, and behavioral aspects, we explore how video creation chatbots can influence user experiences, creativity, self-expression, and overall psychological well-being. Drawing upon existing research on human-computer interaction, user experience, and psychology, we present a comprehensive analysis of the potential psychological effects of video creation chatbots.


## Biography

**Kadir Uludag holds Ph.D.** in Applied psychology (Chinese Academy of Sciences). He is currently doing postdoc in Shanghai Jiaotong University Mental Health Center. His research interest includes schizophrenia research, drug addiction and educational psychology. In addition, he runs a website to share and comment on peer-reviewed articles.

**Sannet Thomas**
VBS Purvanchal University
India

# Concepts of Indigenous Psychology: A special reference to the quality of life for tribal communities living in Western Ghats

**Abstract:**

Indigenous psychology is the scientific study of native human behaviour, or the mind, that is tailored for a certain location and its people. Indigenous psychology questions the universality of existing psychological theories and attempts to discover psychological universals in social, cultural, and ecological contexts. The Western Ghats (WG), also known as Sahyadri, are a mountain range that stretches parallel to the western coast of the Indian Peninsula, encompassing 140,000 square kilometres. The WG has housed more than fifty different tribes. The well-being of an individual's life is referred to as quality of life (QOL). The purpose of this study was to look at the QOL of the indigenous communities residing in WG. The tribal settlements in the Ranni, Konni, and Attapday forest divisions provided the data. Purposive sampling and an exploratory research design were used in this qualitative study. The single focus group discussions were how the study's data was gathered. There were fifteen discussions in a single focus group. Twelve people made up each focus group, six of whom were female and six of whom were male. Thematic content analysis was used to analyse the data. Eight aspects, including social relationships, health, work, financial and material well-being, belonging, personal safety, quality of environment, and emotional well-being, are included in the quality-of-life model suggested in this study. This study provides insight into how the indigenous psychological approach assists researchers in examining various concepts in various cultural contexts.

## Biography

**Sannet Thomas** is a doctoral research scholar at VBS Purvanchal University, Jaunpur, Uttar Pradesh, India. He earned a M.Phil. in counseling from the University of Madras, an M.Sc. in psychology from Mangalore University, a B.Sc. in psychology, and a diploma in counseling from the University of Calicut. He has published 60+ research papers in Scopus, Web of Science, UGC Care Listed, and peer-reviewed journals; delivered 20+ invited talks on psychology-related subjects and research methodology; presented 25+ papers at international and national conferences; and published 5 books and 5 book chapters. He serves as an editorial board member and reviewer for a variety of Scopus-indexed, high-impact journals. He is also working as an international affiliate, fellow, or associate member of various national and international professional bodies of psychology. He received psychiatric research training from the University of Pittsburgh and the ICMR. He received many awards from various organizations

**Belay Makango Banborie**

Ethiopian Public Health Institute
Ethiopia

## Prevalence and factors associated with Post-Traumatic stress disorder among internally displaced people in Debre Berhan, Amhara region, Ethiopia 2021

**Abstract:**

Post-traumatic stress disorder is the common mental disorder diagnosed following traumatic exposure that can have serious and long-lasting consequences in terms of physical and mental health outcome among displaced people. In 2021, Ethiopia saw the highest number of internal displaced peoples (IDP) due to war, despite this, less attention has been given to mental health among IDPs in the northern part of the country. A cross-sectional study was conducted from December 1-30, 2021 among 406 IDPs who were selected by random systematic sampling from the registration and proportionally allocated to three IDP camps in Debre Berhan. Post-Traumatic Stress Disorder was measured by the Post-Traumatic Stress Disorder Checklist for DSM-5. Data were collected through interviewer administered pre-tested questionnaire, entered into EpiData version 3.1, and analyzed by SPSS version 25. Multicollinearity was checked by using Variance Inflation Factor (VIF) and it was less than 10. Model adequacy was checked by Hosmer & Lemeshow goodness of test ($p>0.05$). Bivariate binary logistic regression analysis was used to select candidate variables with $p<0.25$. In the multivariable binary logistic regression analysis, the association between outcome and independent variables was declared at $p< 0.05$ with its adjusted odds ratio (AOR) at 95% CI. The prevalence of post-traumatic stress disorder among the respondents was 67.5% (95% CI: 63-72). Factors significantly associated with PTSD among IDP were being merchant (AOR=0.41 [95% CI: 0.02-0.85]), witnessing destruction of property (AOR=1.67 [95% CI: 1.01-2.74]), facing trauma during displacement (AOR=6.00 [95% CI: 2.75-13.10]), frequency of displacement (AOR=0.31 [95% CI: 0.11-0.85]), being distressed (AOR=5.42 [95% CI: 3.25-9.05]), and having too much free time (AOR=2.09 [95% CI: 1.24-3.54]). This study provides evidence of high prevalence of PTSD among IDPs. It is suggested that mental health and psychosocial support are urgently required to address the identified factors to help the IDPs against a long-term avoidable suffering.

### Biography

**Belay Makango** Banborie has completed his MD at the age of 28 from Bethel Medical college and Masters in Public health from GAMBY Medical and business school. He is the case team leader of health system resilience at Ethiopian Public Health Institute. He has published more than four papers in peer reviewed journal

# POSTER PRESENTATIONS

JUNE
19-20, 2024

VIRTUAL EVENT

DAY-02

**Yoshikazu Fukui**

Konan University
Japan

## Latent factor structure of anxiety sensitivity among Japanese adolescents: Using the Japanese version of the Anxiety Sensitivity Index-3

**Abstract:**

Anxiety sensitivity denotes the fear of anxiety and related bodily sensations, distinguishing itself from trait anxiety by focusing more on one's own anxiety symptoms. It is strongly associated with agoraphobia, generalized anxiety disorders, and PTSD. The Anxiety Sensitivity Index (ASI) is commonly used to measure anxiety sensitivity. Its latest version, the ASI-3, consists of three subscales: social, cognitive, and physical concerns. This scale has been found to have high reliability and validity, and has been translated into many languages. In the confirmatory factor analysis conducted during the development of the Japanese version of the ASI-3, some covariance between errors were set for both the three-factor model and the higher-order three-factor model. However, its methodological validity was questionable. In this study, a hierarchical factor model was tested by adding a general factor to the three-factor model, and its goodness of fit was compared with that of other models. Data were obtained through a questionnaire administered to 891 university students. The results of the confirmatory factor analysis indicate that the goodness of fit of the hierarchical factor model was superior to that of the three-factor and higher-order three-factor models without setting any covariance between errors. Thus, this study establishes the latent factor structure of the ASI-3 and contributes to its factorial validity.

### Biography

**Yoshikazu Fukui** has graduated his doctoral course of Doshisha University in Kyoto, Japan without PhD. He is a professor of Konan University in Kobe, Japan teaching clinical psychology. He has published more than 100 papers, given more than 800 presentation in the Congress, and translated more than 10 important books in this field. He is also a psychotherapist who uses the body oriented method such as EMDR, TFT, Ego State Therapy, Somatic Experiencing, Tapping method, and clinical hypnosis, for those suffered with complex PTSD and dissociative disorder.

**Jenna Hei Lok Ng**

Pamela Youde Nethersole Eastern Hospital
Hong Kong

## A mind-body musculoskeletal (MSK) pain management program for chronic neck and back pain patients in occupational therapy

**Abstract:**

Musculoskeletal chronic pain is costly and associated with poor physical and emotional functioning. While conventional treatments of using physical agents alone may lack long term benefits, congruent with the International Association for the Study of Pain, occupational therapists adopt a biopsychological approach to optimize patient's occupational performance, develop self-efficacy and pain self-management skills. This study aims at reviewing the effect of a Mind-Body Musculoskeletal Pain Management Program for neck and back pain patients, which was launched in the Outpatient Department at Occupational therapy Department of Pamela Youde Nethersole Eastern Hospital in Hong Kong between 2020 and 2021. Patients with chronic pain who joined the Mind-Body Musculoskeletal Pain Management Program showed significant functional improvement physically despite the presence of chronic neck and back pain. The pain programme based on physical and psychological modalities is an effective treatment, and shall play an important role in chronic pain rehabilitative services in Hong Kong.

### Biography

**Ng** is an Advanced Practiced Occupational Therapist, working in an acute public hospital setting. She obtained her Bachelor of Science in Occupational Therapy from The Hong Kong Polytechnic University in Hong Kong in 2019. She obtained her Master of Science degree in Stroke and Clinical Neurosciences from the Chinese University of Hong Kong in 2023. She has various experiences in presenting in different congresses such as Annual Congress at Hong Kong Society for the Surgery of the Hand.

**Cindy Carrissa Primaputri**

University Brawijaya
Indonesia

# Analysis of blood urea nitrogen/albumin ratio, pneumonia severity index, and interleukin 8 levels in patients undergoing pulmonary rehabilitation and shortwave diathermy

**Abstract:**

Early mobilization has become standard management for patients with Pneumonia, and physical activity in hospitalized patients remains limited and has not become a priority therapy in clinical practice. The aim of this study is to analyze the effects of Pulmonary Rehabilitation (PR) and Shortwave Diathermy (SWD) on the Blood Urea Nitrogen (BUN)/Albumin ratio, Pneumonia Severity Index (PSI), Interleukin-8 (IL-8) levels, and length of Stay (LOS) in Pneumonia inpatient. This is a randomized experimental study with a pre-post-test control group. Involved 24 hospitalized Pneumonia patients from 2022 until 2023 at Dr. Saiful Anwar General Hospital and Lawang General Hospital. Subjects were divided into three groups: a control group, an intervention group (PR only), and an intervention group (PR and SWD) for 5 days. This data was analyzed by comparing the delta of each group. The severity index was measured with PSI and CURB-65, and blood samples was collected before and after intervention to measure the BUN/Albumin ratio and IL-8 levels. There was a significant decrease in the BUN/Albumin ratio after intervention (p=0.03). IL-8 levels and LOS showed a declining trend, although not showing statistically significant differences (p=0.208; p=0.249). There was a significant correlation between PSI and IL-8, as well as the BUN/Albumin ratio (p=0.015; p=0.002l p=0.001). This study highlights a decrease in IL-8 levels and the BUN/Albumin ratio, and a shortened LOS in Pneumonia patients receiving PR and SWD therapy for 5 days. This study strengthened the evidence that PR and SWD can be routine support therapies for patients with Pneumonia.

## Biography

**Cindy Carrissa Primaputri** completed her medical education at Maranatha Christian University, Bandung, and West Java, Indonesia in 2016 and continued her study to become a Pulmonologist in 2021. Now, she is a Senior Resident in Pulmonary and Respiratory Medicine at Universitas Brawijaya, Malang, and East Java, Indonesia. This study was conducted to fulfill the requirements for obtaining a specialist degree as a Pulmonologist.

**Dong Hyuck Kim**

Daegu Catholic University
Korea

## Acute piriformis syndrome in a military pilot with chronic Lumbar radiculopathy: A case report

**Abstract:**

Piriformis Syndrome (PS) is a condition affecting the piriformis muscle, located deep within the buttock. Overuse or irritation of this muscle can lead to compression or irritation of the adjacent sciatic nerve, causing pain in the buttock, thigh, and leg. PS is diagnosed in 2-6% of patients with low back pain or sciatica, but incidence can be as high as 17.2%. Diagnosis of PS is based on physical examination and clinical information, with imaging studies used to rule out other diseases. However, differentiating PS from other neurological pain-causing conditions like lumbar radiculopathy or sciatica can be challenging due to similar symptoms. Military pilots often experience chronic back pain and radiating pain due to body positioning discomfort and high gravity force. Lumbar disc herniation is common in this group, leading doctors to often suspect this condition when diagnosing radiating lower extremity pain in pilots. However, this case report of a military fighter pilot with a history of chronic lumbar radiculopathy diagnosed with PS highlights the importance of considering all potential diagnoses. This serves as a reminder for healthcare professionals to maintain a broad differential diagnosis to ensure accurate and effective treatment.

### Biography

**Dong Hyuck Kim** (MD) is an assistant professor of Anesthesiology and Pain Medicine at Daegu Catholic Medical Center. Now he currently devotes one day a week as a researcher, one day a week as a pain physician, three days a week as an anesthesiologist, one day a week as an athlete who enjoys a variety of sports, and one day a week as a philosopher who ponders the meaning of life.

**Kwang Ryeol Kim**

Daegu Catholic University
Korea

## Evaluation of upper extremity muscle strength improvement in patients with cervical disc herniation through cervical epidural block [Pilot study]

**Abstract:**

This pilot study aimed to evaluate the effectiveness of cervical epidural block (CEB) in improving upper extremity muscle strength (MS) in individuals diagnosed with cervical disc herniation (CDH). A cohort of 5 patients (4 men, 1 woman) diagnosed with CDH underwent a single CEB treatment. Patients were monitored weekly for 2 weeks in the outpatient clinic. MS was assessed three times using dynamometers, and the average value was recorded. Assessments were conducted at baseline and at regular intervals during the treatment. Pain levels for neck and upper extremity radiating pain were measured using the visual analogue scale (VAS). The average age of the patients was 48 years (36-78), and the affected disc levels were C5-6(3), C6-7(1), and C5-6-7(1) patient. In terms of pain, the neck VAS decreased by 3.6points (6.8 to 3.2), and the arm VAS decreased by 4.4points (7.4 to 3.0). The average MS before the procedure using dynamometry was 32.7kg on the healthy side (HS) and 24.1kg on the affected side (AS). The immediate post-procedure evaluation showed changes of 1.8kg and 5.6kg [Immediately post-CEB (IMP) to pre-CEB (PRE)]. The average changes in the first week were 0.4kg (HS), 4.8kg (AS) (1 week after CEB (P1) to PRE), -1.4kg (HS), -0.8kg (AS) (P1 to IMP). The average changes in the 2nd week were 0.5kg (HS), 4.3kg (AS) (2 weeks after CEB (P2) to PRE), 0.1kg (HS), -0.5kg (AS) (P2 to P1). These findings suggest that CEB has the potential to improve upper extremity muscle weakness associated with CDH.

### Biography

**Kwang Ryeol Kim** has completed his B.D. at the age of 24 years from Keimyung University, Republic of Korea in 2010 and M.D. at the age of 27 years from same University. He plans to pursue Ph.D. in 2024 from Kyungpook National University, Republic of Korea. He completed his residency in Neursurgery department at Keimyung University Dongsan Medical Center (DSMC) until 2015. He served as a Military Doctor from 2015 to 2018. He completed a Spine fellowship at DSMC in 2018 and a Spine fellowship at Gangnam Severance Hospital in 2019. In 2020, he began his career as an assistant professor at the Catholic Kwandong University, International St. Mary's Hospital, and Republic of Korea. In 2023, he moved to Daegu Catholic University Hospital, Republic of Korea. He is the Spine specialist of Neurosurgery department of Daegu Catholic University, Republic of Korea. He has 14 publications that have been cited over 130 times, and his publication h-index is 7. He has been serving as an reviewer of several reputed journals. (Spine, Global spine journal, Neurospine, etc.)

**Komal Mehta**

D.Y. Patil University
India

## Electromyographic analysis of infraspinatus and supraspinatus muscle during mugdar (Indian Club) swing

**Abstract:**

Mugdar (Indian Club) swing is one of the popular exercise in early centuries in Asian countries. It not only used for physical training but even for athletic performance and as well as moral strength. It has unique design as their unique feature of multi-purpose training. During swing shoulder joint (Rotator cuff) play a crucial role and with different position muscle activation varies. Surface EMG has been used for assessing and analysing electromyograhic activity. Therefore, our purpose is to analyse and compare recruitment of muscle activity such as Infraspinatus and Supraspinatus during Mugdar swing. A pre-amplified surface electromyography sensors used with ProComp Infiniti channels. Electrodes placement was done according to Criswell 2010 classification. MVIC manovure was performed according to that classification.33 subjects age varies from 18 to 30 were included in the study as per the inclusion criteria. Indian Club swing can be used for recruitment of Infraspinatus and Supraspinatus muscle as both shows significant result. The movement that are done in scaption plane helps in higher recruitment of specific muscle. In Mugdar swing, Supraspinatus muscle shows significantly higher activation than Infraspinatus. On comparison of recruitment to their MVIC Supraspinatus shows 35% of MVIC while Infraspinatus shows 25% of MVIC. Swing pattern used in this study would be beneficial for population that includes more of overhead activities such as overhead athletes.

### Biography

I am **Komal Mehta** (PT) an Sports physiotherapist from India. I completed my Bachelor of Physiotherapy from Government Physiotherapy College from Jamnagar in 2021. Pursued My Master of Sport Physiotherapy from DY Patil University, Navi Mumbai and completed in 2023. Currently working as a consultant physiotherapist in Private clinic. I have been selected for research earlier for International Shoulder Group conference (ISG) 2024 at York University in Toronto.

# KEYNOTE PRESENTATIONS

JUNE
19-20, 2024

VIRTUAL EVENT

DAY-02

**Rachid El Khoury**

Saint Joseph University
Lebanon

## Understanding chronic pain: An output of the brain an opinion on tissues state of health

**Abstract:**

Chronic pain is perhaps the most burdensome health issue facing the planet. Our understanding of the pathophysiology of chronic pain has increased substantially over the past 25 years, including but not limited to changes in the brain. However, we still do not know why chronic pain develops in some people and not in others. Most of the recent developments in pain science, that have direct relevance to clinical management, relate to our understanding of the role of the brain, the role of the immune system, or the role of cognitive and behavioral factors. Although the Biopsychosocial model of pain management was presented decades ago, the Bio-reductionist model remains, unfortunately, at the heart of many practices across professional and geographic boundaries. A large body of evidence shows that nociception is neither sufficient nor necessary for pain. Pain is a conscious experience that can certainly be, and often is, associated with nociception, however, always modulated by countless neurobiological, environmental, and cognitive factors. This presentation will clarify the current misconceptions of chronic pain concepts, and their misperceptions by clinicians. It will also attempt to bridge the considerable gap between what we already know on pain but somehow disregarded, the development in pain science, and clinical practice.

**Biography**

**Rachid** is an Osteopath and Physical Therapist from Canada and the US with over 30 years of experience. Post professional education at Michigan State University and the University of New England. Fellowship in Advanced Manual and Manipulative Therapy, Canada. Rehab Development Manager at Sultan Bin Abdulaziz Humanitarian City-Riyadh, and since 2006, faculty at Saint Joseph University, Lebanon.

**Inbar Levkovich**

Oranim Academic College
Israel

## Teachers insights on adolescent NSSI: Knowledge, attitudes, and barriers to student support

**Abstract:**

Non-suicidal self-injury (NSSI) refers to a deliberate injury of one's own body, with no suicidal intentions nor socially accepted aims. Teachers are in a unique position to identify adolescents who injure themselves, to encourage them to seek help and to prevent exacerbation of their distress further on. Hence, the present research has examined the connection between teachers' knowledge and attitudes towards adolescents' NSSI, their perception of their role as well as barriers in their work in relation to students' mental health care, and these teachers' response. This cross-sectional study included 203 teachers from middle-schools and high-schools all over the country. The data was collected during 2023, through six validated questionnaires: (1) personal demographic data; (2) knowledge regarding NSSI; (3) attitudes towards NSSI; (4) perception of one's role; (5) barriers at work; responding to the adolescents coping with NSSI. The study's findings show that higher levels of knowledge, attitudes and perception of one's role are conducive to greater efficiency regarding the response to NSSI and mindful coping with the phenomenon. However, as the level of barriers increases, response become less efficient. In addition, a positive correlation was found between role perception and knowledge and attitudes, while a negative correlation was found between barriers at work and attitudes and role perception. Conversely, no connection was found between knowledge and attitudes and barriers in the teachers' work. The research findings also shed light on the need for programs to reduce the barriers encountered by teachers at work. Increasing knowledge and support for teachers working with this population will help them identify students coping with the phenomenon, and grant them the appropriate response, while maintaining the well-being of both teachers and students.

### Biography

**Inbar Levkovich,** Ph.D., is Associate Professor and Head of the Unit for Theses and Final Research Projects in the Faculty of Graduate Studies, at Oranim Academic College, Israel. Received her PhD from the Faculty of Social Welfare and Health Sciences, at Haifa University. Completed her Postdoctoral at the School of Social Work, Bar-Ilan University. She served as the head of the research unit at the Division of Family Medicine, The Ruth & Bruce Rappaport Faculty of Medicine in the Israel Institute of Technology. Main areas of research are Stress, coping and mental health.She published more than ninety papers in refereed journals and several chapters in edited books.

**Raquel Costa**

Lusofona University
Portugal

## Perinatal mental healthcare gaps for women with depression or anxiety in 12 countries: Data from the Riseup-PPD COST Action

**Abstract:**

**Background:** Unmet needs in perinatal mental healthcare are an important public health issue particularly in the context of a stressful life event such as the COVID-19 pandemic but data on the extent of this problem are needed.

**Aim:** To determine the (1) proportion of women with clinically significant symptoms of perinatal depression, anxiety or comorbid symptoms of depression and anxiety, receiving mental healthcare overall and by country and (2) factors associated with receiving mental healthcare.

**Method:** Women in the perinatal period (pregnancy or up to 6 months postpartum) participating in the Riseup-PPD-COVID-19 cross-sectional study, reported on sociodemographic, social support health-related factors, and COVID-19 related factors, and on symptoms of depression (Edinburgh Postnatal Depression Scale [EPDS]) and anxiety (Generalised Anxiety Disorder [GAD-7]) using self-report questionnaires. Clinically significant symptoms were defined as EPDS ≥ 13 for depression and GAD-7 ≥ 10 for anxiety. Mental healthcare was defined as self-reported current mental health treatment.

**Results:** Of the 11 809 participants from 12 countries included in the analysis, 4 379 (37.1%) reported clinically significant symptoms of depression (n = 1 228; 10.4%; EPDS ≥ 13 and GAD-7 < 10), anxiety (n = 848; 7.2%; GAD-7 ≥ 10 and EPDS < 13) or comorbid symptoms of depression and anxiety (n = 2 303; 19.5%; EPDS ≥ 13 and GAD-7 ≥ 10). Most women with clinically significant symptoms of depression, anxiety, or comorbid symptoms of depression and anxiety were not receiving mental healthcare (89.0%). Variation in the proportion of women with clinically significant symptoms of depression and/or anxiety reporting mental healthcare was high (4.7% in Turkey to 21.6% in Brazil). Women in the postpartum (vs. pregnancy) were less likely (OR 0.72; 95% CI 0.59-0.88), whereas women with previous mental health problems (vs. no previous mental health problems) (OR 5.56; 95% CI 4.41-7.01), were more likely to receive mental healthcare.

**Interpretation:** There are high unmet needs in mental healthcare for women with clinically significant symptoms of perinatal depression and/or anxiety across countries during the COVID-19 pandemic. Studies beyond the COVID-19 pandemic and covering the whole range of mental health problems in the perinatal period are warranted to understand the gaps in perinatal mental healthcare.

## Biography

**Raquel Costa** is Associate Professor at Lusofona University with teaching experience since 2009, and Executive Director of the HEI-Lab. She is Auxiliary Researcher recently awarded (2023) with an individual FCT contract (CEEC) to study brain synchrony and biobehavioral pathways of caregiver-child co-regulation associated with early developmental and mental health problems. She has PhD in Clinical psychology, She have been highly motivated and actively engaged for nearly 15 years in the study of the interaction between environmental and psychophysiological mechanisms, and identification of modifiable risk factors of early psychopathology.

**Zhenhuan Liu**

Guangzhou University
China

## Neuroimaging by evaluation nerverenovate and neuroplasticity of acupuncture in children with cerebral palsy

**Abstract:**

**Objective:** To investigate the effect of and Acupuncture on brain plasticity and motor development in children with cerebral palsy. Investigate effect on mechanism of apoptosis of brain nerve cells, regulating the expression of neurotrophic factors, promoting the remodeling of nerve synaptic structure and motor development in young rats with cerebral palsy. Two:To evaluate the effect and mechanism of acupuncture on cerebral palsy.Three:The nerve repair effect of acupuncture on cerebral palsy.

**Methods:** In this study, 146 cases of brain injury and 1078 cases of cerebral palsy were included by randomized controlled study with ICF Gross motor function measure ,Peabody fine motor function, Gesell, muscle tension, joint activity, activity of daily living transcranial doppler,, skull B ultrasound, Brain Nuclear Magnetic Resonance Imaging MRI,Positron Emission Tomography SPECT, Diffusion tensor tractography evaluation method.

**Results:** The recovery rate of extracellular space (92.3%) was significantly higher than that of the control group (70.8%) (P <0.05), Transcranial Doppler,TCD total efficiency (79.3%) was significantly higher than that in the control group (51.8%) (P <0.05). Acupuncture to promoting the development of neurological and cognitive movement under 6 months children, effectively reduce the neurological sequelae.The total effective rate of the children with cerebral palsy was 87% in the acupuncture group, which was significantly higher than that of the control group (P<0.01). The total effective rate of Brain MRI was 59.55% in the acupuncture group and 13.25% higher than that in the control group (P <0.01). The total effective rate was 91.3% in the 1 year follow-up group, which was significantly higher than that in the control group (P <0.01). the FA value of white matter fiber bundle was significantly higher than that of acupuncture at 60 times (P <0.05). The recovery rate of ultrasonous brain injury (86.7%) in acupuncture group was significantly higher than that in control group (64.4%) (P <0.05). The recovery rate of brain SPECT in acupuncture group was 96.4%, which was significantly higher than that in the control group (P <0.01).

**Conclusion:** Acupuncture rehabilitation not only promote the development of white matter and gray matter in children with cerebral palsy, but also promote the brain function of chil-

dren with cerebral palsy remodeling and compensation, and promote social adaptation, language and other cognitive function development, children with cerebral palsy movement and Fine motor function development and recovery, improve the children's self-care ability.

## Biography

**Zhenhuan Liu** professor of pediatrics,Pediatric acupuncturist Ph.D.tutor.He has been engaged in pediatric clinical and child rehabilitation for 40 years. Led the rehabilitation team to treat more than 40,000 cases of children with intellectual disability, cerebral palsy and autism from China and more than 20 countries,More than 26800 childrens deformity returned to school and society and became self-sufficient.The rehabilitation effect ranks the international advanced level.Vice-chairman of Rehabilitation professional committe children with cerebral palsy, World Federation of Chinese Medicine Societies.Visiting Profassor of Chinese University of Hong Kong in recent 10 years. .He is most famous pediatric neurological and rehabilitation specialists in integrated traditional Chinese and Western medicine in China.He has edited 10 books.He has published 268 papers in international and Chinese medical journals.

Yu Cong Zou
Foshan University
China

## Comprehensive rehabilitation strategies for joint contracture following orthopedic surgery

**Abstract:**

Joint contracture is a limitation in the passive range of motion of a joint secondary to shortening of the periarticular connective tissues and muscles. Immobility plays a major role in the development of joint contractures. Indeed, patients with conditions limiting mobility are at high risk for joint contracture.Prolonged immobility from critical illness can also be expected to predispose patients to experience joint contractures. Joint immobilization is frequently administered after fractures and ligament injuries to maintain the resting state of injured tissues. However, it has the side effect of causing joint contracture, muscle atrophy, articular cartilage degeneration, and reduced bone mineral density. Immobilization-induced joint contracture induces pain, the increase in risk of falls, and pressure ulcers, which contribute to long-term sequelae. Prevention and/or improvement of immobilization-induced joint contracture are thus critical issues in rehabilitation medicine. Therefore, a series comprehensive rehabilitation strategies must be taken to prevent the occuring of joint contracture in each phase.

### Biography

**Yu-Cong Zou** has completed his PhD at the age of 26 years from Southern Medical University and postdoctoral studies also from Southern Medical University. He is the director of Director of the Rehabilitation Medicine Research Institute,Foshan Rehabilitation Hospital. He is also a visiting scholar at New York Special Surgery Hospital (HSS) and Rutgers University in the United States.He has published more than 20 papers in reputed journals and was invited as many journals' reviewers.He also obtained more that 10 funding grants.

# SUPPORTING JOURNAL

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