Physiotherapy -
A Lifespan Approach

HONG KONG PHYSIOTHERAPY ASSOCIATION
CONFERENCE 2011
22 - 23 October 2011

Keynote Speakers

- Prof. Donna Cech
  Pediatric clinical specialist;
  Midwestern University, Illinois, USA
- Prof. Meigen Liu
  Expert in neural plasticity & functional evaluation of people with disability;
  School of Medicine, Keio University, Tokyo, Japan

Pre-conference Workshops

Physical therapy evaluation and treatment of the child with sensory motor dysfunction
- Prof. Donna Cech

Work productivity assessment
- Dr. Grace Szeto
  Associate Professor, Department of Rehabilitation Sciences, The Hong Kong Polytechnic University
- Occupational Safety, Health and Rehabilitation Specialty Group

Post-conference Workshops

Newer therapeutic strategies (Hybrid Assistive Neuromuscular Dynamic Stimulation and Brain-Machine Interface Neurorehabilitation) for hemiparetic upper limb after stroke
- Prof. Meigen Liu

Ultrasonography: the sciences and its application on musculoskeletal disorders
- Dr. Amy Fu
  Associate Professor, Department of Rehabilitation Sciences, The Hong Kong Polytechnic University
- Dr. Michael Ying
  Associate Professor, Department of Health Technology and Informatics, The Hong Kong Polytechnic University
- Dr. Vivian Leung
  Senior Sonographer, Prince of Wales Hospital

The Hong Kong Physiotherapy Association Conference 2011

Instructions for Authors: Abstract Submission

1. Abstracts must be typed in English.
2. **Single line spacing** should be used for the text, with **11-point font** (Times New Roman) kept within the frame borders.
3. Title:
   - The title of the abstract should be in **capital letters**.
4. Authors:
   - The authors’ names should be presented with the **surname first followed by the initials**.
   - **The highest qualification, and primary affiliation** of each author should be included.
   - The name of the **presenting author** should be **underlined**.
5. Text:
   - The main text of the abstract (Background and Purpose, Methods, Results, and Conclusions) should be no more than 250 words.
   - Please **DO NOT** put any tables or figures in the abstract.
6. Information of presenting author:
   - Provide the name, mailing address, and email address of the **presenting author**.

- The deadline for submission is **15 July 2011**.
- Incomplete or late submissions will not be considered.
- Authors will be informed of the success of their submissions before **31 August 2011**.
- Authors should contact Dr. Marco Pang (Chairperson of the Scientific Programme Subcommittee, see contact information below) if they have not received a reply by then.

**For further enquiries, please contact:**
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Chairperson, Scientific Programme Subcommittee,  
The Hong Kong Physiotherapy Association Conference 2011  
Department of Rehabilitation Sciences, The Hong Kong Polytechnic University, Kowloon, Hong Kong  

E-mail: Marco.Pang@inet.polyu.edu.hk
Title: BALANCE FUNCTION IN CHILDREN WITH ATTENTION DEFICIT HYPERACTIVITY DISORDER

Authors (last name, initials, highest degree, one primary affiliation):
Shum BM, MSc, Department of Rehabilitation Sciences, Hong Kong Polytechnic University, Hong Kong.
Pang MYC, PhD, Department of Rehabilitation Sciences, Hong Kong Polytechnic University, Hong Kong.

Background and purpose: Previous studies have revealed that children with Attention Deficit Hyperactivity Disorder (ADHD) have significant impairments in various aspects of sensorimotor function. The objectives of this study were: (1) to compare the balance ability of ADHD children with an age/sex matched control group, and (2) to determine which sensory system(s) contribute to balance deficits in children with ADHD.

Methods: A total of 43 children (15 females and 28 males) with ADHD and 46 typically developing control children (17 females and 29 males), matched by age and gender, participated in this study. To assess balance function, each subject underwent the sensory organization test (SOT). The composite equilibrium score, somatosensory ratio, visual ratio, and vestibular ratio were generated. Multivariate of variance (ANOVA) was used to compare the variables of interest between the two groups.

Results: The result revealed a significant difference between the ADHD group and the control group in the composite equilibrium score ($F_{1,85}=13.302$, $p<0.001$). In addition, the somatosensory ratio ($F_{1,85}=4.962$, $p=0.029$), and visual ratio ($F_{1,85}=12.208$, $p=0.001$) also showed significant between-group difference.

Conclusion: The results showed that children with ADHD have significant deficits in standing balance performance. The visual and somatosensory systems seem to be more involved in contributing to the balance deficits in this population than the vestibular system.

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Presentation Preference (Please tick):  ✔ Oral  ☐ Poster

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(Word limit: no more than 250, excluding title and authors)
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