

The IOPTP Newsletter

The International Organisation of Physical Therapists in Paediatrics

Edition 9, July 2012

President's Message

Barbara H. Connolly PT, DPT, EdD, FAPTA USA

Hard to believe that our meeting in Amsterdam was a little over a year ago! Much has happened since that time for the IOPTP and I am pleased to share our activities with you. We are analyzing data from a questionnaire sent to our member countries about available guidelines and fact sheets. This information will be posted on our RESOURCES page on the IOPTP website by late summer and can be accessed by our members.

Additionally, we are gathering information on EDUCATIONAL OPPORTUNITIES and will post this for our members on the website as well. Be sure to look at these informational pages often to view new opportunities around the world.

We also have a new FACEBOOK page! More and more of our members are

becoming "friends" of the IOPTP on Facebook and I would encourage you to join. The Executive Committee anticipates that this Facebook page will be a resource for greater communication between our members. The sharing of questions and answers via this format is a fast and easy way for our members to communicate. We hope that you will find this technology of interest to you as well.

With this issue of our newsletter, we are introducing you to our education and research committee members. We would love to have representatives from each of our member countries on each of the IOPTP committees! As you read about each of our committees on the upcoming newsletters, you may want to join one of

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For submissions or questions regarding the newsletter please contact the newsletter editor Erin Wentzell PT, DPT, PCS at

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these dynamite groups. If so, please contact either me or the committee chair about possible service.

Lastly, the Executive Committee and the Committee Chairs are working diligently on scheduling the mid-WCPT meeting for the IOPTP. We have entered into a

collaboration with the Section on Pediatrics of the American Physical Therapy Association and will have this meeting in Anaheim, California at DISNEYLAND on November 8 – 10, 2013. Additionally, the IOPTP will sponsor a preconference session on November 6-7th. We will be

updating you about the call for abstracts and the programming via our educational page on the IOPTP. We hope to see many of you at this mid- WCPT meeting and what a great venue for physical therapists in paediatrics!



Meet the IOPTP Committee members: The Education Committee

Donna Cech

I have been a member of this committee since it's inception 4 years ago. I enjoyed working with the previous group and assisted in the survey of pediatric practice and interests by compiling and analyzing the survey data that members sent in. I have worked with children and their families, as a physical therapist since 1976. I was certified as a Pediatric Clinical Specialist by the American Board of Physical Therapy Specialties (ABPTS) in 1986, 1996, and 2006. At this time I am a program director for the Doctor of Physical Therapy Program at Midwestern University, just outside of Chicago. I am a professor in the program and teach life span development, clinical problem solving and pediatric physical therapy courses. I also have a small home health pediatric

physical therapy practice, working primarily with young children and their families. My main scholarly interests are standardized measurement and life span development.

Rong-Ju Cherng

I have been a member of this committee since 2008. I have worked with previous group to survey the pediatric practice and interests across the member countries. I have worked with children and their families as a physical therapist since 1980. Currently I am working as the chair and professor at the Department of Physical Therapy, National Cheng Kung University, Taiwan. I also have clinical duty at a university affiliated hospital for developmental assessments. My research interest is motor control in

children with cerebral palsy and children with developmental coordination disorder.

Iytte Falmår

I was member of the Committee since it started. I am from Denmark, Odense, with a BS in Physical Therapy, Master of Health and Humanity (2006), Specialist in Pediatric Physiotherapy. I have been interested in the development and wellbeing of children for most of my worklife, more than 35 years. Since 1999 I have been a lecturer at the University College Lillebælt, and at the Further and Ongoing Education, where I am responsible for the pediatric education issues of PT. And I am member of the committee of pediatric PT of the Trade Union in Denmark.

Lucie Pelland

I am an Assistant Professor in the Physiotherapy Program at Queen's University in Kingston (CANADA), and am the current Chair of the Paediatric Division of the Canadian Physiotherapy Association. I teach paediatrics within our program and my program of research addresses sensory-motor coordination and learning in typical development and selected clinical populations, mainly children with cerebral palsy and those with traumatic brain injuries.

Lana Svien

I have been on this committee since the inception. I have been a pediatric physical therapist in the US for over 30 years, most currently as part of an interdisciplinary infant toddler team on rural Indian reservations in South Dakota. I am the program director for the DPT program at The University of South Dakota and also teach the pediatric content in the traditional physical therapy program. We have an on-line transitional DPT and I supervise the research projects, if they are in pediatrics. Most of my research has been on pediatric outcomes, particularly in kids born pre-term. Currently I am working with Special Olympics International on examining the data from the APTA FunFitness screens from local to world

games. I am interested in fall prevention programs for individuals with intellectual disabilities.

Phena Heffernan

I am new to the committee. I work at the Children's University Hospital, Dublin, Ireland for the last year and a half. My clinical caseload is divided between two teams, with the majority of my clinical caseload (70%) in neurosciences (neurology and neurosurgery) and the rest on respiratory and sometimes even fracture clinic during staff shortages. I am currently doing some research in early management of spina bifida, and I am involved with student education.

Joe Schreiber

I have been a pediatric physical therapist for over 25 years. Currently I am on faculty at Chatham University in Pittsburgh, Pennsylvania, where I have taught the pediatric and research content for 10+ years. I have served in the Section on Pediatrics of the American Physical Therapy Association as chair of the Education Committee and currently as President of the Section. I was part of a group from the Section that recently published an article in Pediatric PT about entry level (or professional) pediatric education. One of the key findings of our survey was the wide variability of content hours, laboratory hours, and hours devoted to interacting with children across all of the programs in the US. I think that this is an important issue- determining an "adequate" amount of time and content for all individuals graduating with a degree in physical therapy so that they are competent to effectively provide services for children.

Eva Brogren Carlberg

As a PT I have worked with children almost all my professional life (more than 30 years). I'm no longer actively working with treatment of children, nowadays I spend most of the time as a senior lecturer at Karolinska Institutet in Stockholm Sweden (Dept of Women's and Children's Health). At the moment I am involved in an interprofessional Master's program in

clinical medical science. I am also responsible for courses at an advanced level (according to Bologna) in Neuropediatrics and an international course "Cerebral palsy- causes, symptoms and treatment". My thesis was on "Postural adjustments in sitting position; effect of development, training and brain lesions" and was experimental. After that I have been more engaged in clinical research e.g. goal-directed training for children with CP, family-centered care, testing measures for validity and reliability.

Ria Nijhuis-van der Sanden

I am member of the board of the IOPTP (treasurer) since we started in Vancouver. Each board member is also member of a committee and I am member of the education committee since the start. As a PT I have worked with children since 1974, first 22 years in my private practice and since 1993 in the University medical centre as head of the department. Since 1995 I

was involved as lecturer in the postgraduate education in paediatrics and human movement sciences. Together with Ron van Empelen and Annelies Hartman I am editor of the Dutch Book "Paediatric Physical Therapy". I got my PhD in 2003. My thesis focused on motor performance problems in Turner Syndrome. Since February 2009 I am professor and chief of the department of allied health sciences.

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Meet the IOPTP Committee Members: The Research Committee

Grace O'Malley MISC, MSc, is Senior Physiotherapist in Paediatrics at The Children's University Hospital, Dublin, Ireland where she works in paediatric obesity management. Research includes using incentive-based approaches to increase physical activity; tracking of cardiometabolic and musculoskeletal health and mobile/electronic health interventions. Collaborates in pediatric clinical research with Yale University and sits on the Board of the European Childhood Obesity Group and on the Childhood Obesity Task Force (EASO).

Hua-Fang (Lily) Liao is Associate Professor, School of Physical Therapy, National Taiwan University, President of the Chinese Association of Early Intervention Profession for Children with Developmental Delays, and Executive Supervisor, Physical Therapy Association of Republic of China (Taiwan). She has participated in PT education and research for 37 years, focusing on developmental tests, resistance exercise for CP, and ICF and PT history in Taiwan.

Dr Hilda Mulligan works at the University of Otago's School of Physiotherapy in New Zealand. She teaches paediatric, neurology and community based interventions to undergraduate and postgraduate physiotherapy students. Her main research interest is in the promotion of physical activity participation for individuals with disability throughout the lifespan, with a growing interest in the built environment's influence on access to physical activity opportunities.

Dr Gunn Kristin Øberg is working at the University of Tromsø and the University Hospital of Northern Norway, Tromsø, Norway.

Her research interests are related to early intervention of preterm infants and infants with neurological disorders. Main topics: Content, form and effect of therapy and therapeutic processes, parental competency.

Dr Margaret (Maggie) O'Neil is an associate professor in the Department of Physical Therapy and Rehabilitation Sciences at Drexel University in Philadelphia, PA. She holds a secondary appointment in the School of Public Health. Her research focus is physical activity and fitness interventions and outcome measures for children obesity and disability.

Dr Nora Shields is an Associate Professor in the Department of Physiotherapy at La Trobe University. Her research program aims to improve the health and wellbeing of people with disability through engagement in physical activity and exercise. Her innovative work includes high quality community based randomised controlled trials.

Anne-Marie Wium from Roedovre, Denmark works with special needs children/adolescents age 0 - 18 years in mainstream municipal schools and special education facilities. Her advanced education was related to physiotherapy for children/adolescents.

Dr Ann Van Sant, PT, PhD, FAPTA is an emeritus professor of Physical Therapy at Temple University. Her research has been devoted to the study of lifespan development in fundamental motor skills. She also is Editor in Chief of *Pediatric Physical Therapy*.

For questions or inquiries regarding the Research Committee please contact Ann Van Sant at avansant@temple.edu

IOPTP Treatment Spotlight: Equine Assisted Activities and Therapy

Equine assisted therapy, or hippotherapy, is a treatment tool that has proven to be beneficial for children and adults with a variety of conditions including cerebral palsy, down syndrome, ADHD, status post amputation and many other diagnoses. For more information about equine assisted activities and therapy as well as how to find a provider check out the following links:

- The International Congress of Therapeutic Riding

<http://www.frdi.net/congress.html>

- PATH International (formerly NAHRA)

<http://www.pathintl.org/>

- Find a therapist in the USA that provides Hippotherapy:

<http://www.americanhippotherapyassociation.org/hippotherapy/find-a-therapist/>



Hippotherapy and therapeutic riding in Taiwan

Tze-Hsuan Wang, Uta Rindfleisch-Wu, Hua-Fang Liao, Hong-Ji Luo, Chin-Chih Liu

Department of Physical Therapy, National Taiwan University

Hippotherapy and therapeutic riding were first introduced to Taiwan about 20 years ago. The main promoter, the Riding for Disabled Association (RDA) of Republic of China was founded in 1998. The RDA organized a series of workshops and certification programs annually to train therapists and horse leaders. After the program these certified personnel developed their own programs. Currently, there are 4 centers providing hippotherapy/therapeutic riding programs by registered PTs. Two of them are located in northern Taiwan and provide their services on a regular basis. The other two are located in the middle and southern Taiwan. Both of them provide seasonal programs.

The Therapeutic Riding Centre of Taiwan (ThRCT) is the earliest center established in northern Taiwan and provides various equine-assisted activities and therapies. There are 2 PTs (AHA Level 2) and 3 riding instructors (certified by NARHA, RDAA or CTEA) in the center. The center owns ten horses of different sizes and character, assisting to offer one-on-one hippotherapy/therapeutic riding sessions as well as group lessons. Latter are organized in cooperation with early intervention daycare centers and other organizations, like the local Cerebral Palsy Association. The center serves about 70-80 clients a week. Nearly two third of them are children or adolescent diagnosed with cerebral palsy (CP). The rest belongs to Pervasive Developmental Disorders (PDD) and other disorders. The ThRCT is not only a place, where people can take part in therapeutic riding sessions, but also a place where five mentally challenged adults, living at the Qi Zhi Vocational Training Center for people with intellectual disability, are employed and do work that fits their abilities and interests.

Each year in fall, the ThRCT holds its annual "Hope Cup", a Riding Competition for Physically and Mentally Challenged Riders. The 2012 "Hope Cup" will be organized as an International Invitational Competition, giving riders from Taiwan and the Asia-Pacific region at the start of their competitive career the chance to gain experience in competing on borrowed horses in an unfamiliar, but friendly environment. Riders of the center also have participated in able-bodied Dressage competitions in Taiwan, as well as in International Para Equestrian Competitions.

The Lu-Chou Riding Center is the closest riding center near Taipei City. The center was founded 10 years ago on a small scale. Now, it has 1 PT, 3 instructors, and 5 horses and serves about 50 children a week, most of them are children with cerebral palsy. These children receive a 30-minute hippotherapy session twice a week.

The Er-Lin Riding Center is located in the central Taiwan. The center has 3 horses and cooperates with the nearby hospital to provide hippotherapy for children who are receiving rehabilitation in the hospital.

The program in southern Taiwan is provided by the Ba Gua Liao Foundation since 2004. There are 2 PTs and 2 OTs in the Foundation providing a 12-week program once a year for 20-30 children with cerebral palsy and autistic spectrum disorders.

There are several scientific researchers investigating the effects of hippotherapy/therapeutic riding in Taiwan. In 2004, Prof. Cherng, Prof. Liao and their colleagues published the first report on the effects of therapeutic riding for children with CP. The study proved that horseback riding could improve children's gross motor function. Later, the ThRCT published a case report described the improvements in head and trunk control in a child with hypotonic quadriplegia in 2008. At the 2012 HETI (Federation for Horses in Education and Therapy International) Congress, the ThRCT presented their results of a baseline-pre-post study which investigated the effects of a collaborative program with early intervention daycare centers on self-care function for children with CP. All of these studies supported the use of horses to help children with physical disabilities.

We are excited that the ThRCT and the Chinese Taipei Equestrian Association are going to host the next HETI International Congress, which will be held in Taiwan in June 2015. The congress provides a unique opportunity to share the latest research and findings in this field. Since this is the first time that the congress is held in Asia, all therapists and instructors in Taiwan will work together to present an enjoyable event.

If you need more information please contact: Tze-Hsuan Wang (thwang@thrct.org.tw).



QUALITY OF MOVEMENT AND MOTOR PROBLEMS IN PATIENTS WITH ADHD, IMPLICATIONS FOR THERAPEUTIC RIDING APPROACH.

My name is Birgitte Hokkerup and I am a physiotherapist. I live in Jondal, a small place with about 1000 inhabitants in the western part of Norway. From here we have a 2 hours' drive to Bergen, to the nearest hospital and habilitation centers. I work in primary healthcare in the community, mainly with children, and am able to offer therapeutic riding as part of my job here using my own fjord horses. I also offer therapeutic riding at a riding center in a neighboring municipality. There I have about 35 riders in small groups. I have been working with therapeutic riding for 12 years. This article was originally written for oral presentation at the XIVth International Congress of Therapeutic Riding held April 24-27, 2012, in Athens, Greece

In this article I would like to share with you some of my experiences with patients with ADHD. These patients are a heterogeneous group with considerable variation in symptoms. My focus is on motor problems and consequences for riding. I will present my theoretic fundament and practical examples from two of my riders with ADHD.

10 years ago I had my first patient with ADHD in an individual therapeutic riding session. Maria was then 8 years old and highly motivated for riding. She was not a clumsy child, but very active physically. Her motor skills I had considered to be normal in a general pre-school test performed in her kindergarden group.

I could use her high motivation to work with focusing on the horse. In the beginning she was a real little "rubber-neck" and very easily distracted. I kept her busy doing exercises to enhance her pre-riding skills, balance and coordination. Eventually she became less distractible in the riding situation and we could move on to working with rein control and independent riding.

At this point - when more refined motor functions were necessary for independent riding and for using ones aids - she started complaining about soreness in front of her pubic symphysis. She

was riding with a rigid hollow back, so I instructed her in following the horses' movement by releasing her lower back. Although she could do some movement with her pelvis, *releasing the muscles in her lower back was clearly not an option for her.*

Her general tensions were not obvious when she was moving around on the horse or elsewhere. Now it became very obvious when working with her riding skills. As Maria was doing ok in gymnastics in school as to running, jumping and balancing, I assessed her again to evaluate the quality of her movements.

I rely on the traditions of Basic Body Awareness Therapy and of Norwegian Psychomotor Physiotherapy. In both traditions we understand impaired quality of movement in the light of using compensatory muscles to make up for poor proximal stability. From that point of view I now understood that Maria was compensating for problems as to proximal stability with high muscle tone in gross movement muscles. In general activities in school this compensation worked very well. In specific movements like in riding, the compensating strategy became a problem.

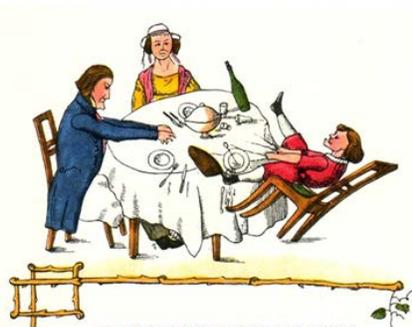
In my efforts to understand the nature of her muscular imbalances better I first searched in my books about ADHD without any result. Then I went on the internet with key-words "proximal stability" and "ADHD" and I found the work of physiotherapist Liv Larsen Stray.

Stray has worked with patients, mainly children, with ADHD for 30 years. Her master thesis on motor function in children with this diagnosis and courses with her became my introduction to her approach. Meanwhile she has completed her work with a PhD and now works with an ongoing study about motor problems in adults.

Motor problems in children with ADHD are not part of the diagnostic criteria in neither the American diagnostic system DMS nor the European diagnostic system ICD. Parents and teachers often rate motor skills as major assets of the children. However, Stray found that observing the children in natural settings showed that they were struggling with both tasks requiring fine muscular adjustments, regulation of

gross movement and stabilization of the trunk. She also noted that while movements often started in a correct manner, the children encountered problems when the movements were continued over time. Standardized assessment tools like the Movement Assessment Battery for Children (M-ABC) are not specific enough to reveal these problems.

Stray designed an assessment battery – the Motor Function Neurological Assessment. She was driven by a wish to make visible these characteristic motor problems to parents and to teachers. Once they had seen the children struggle with the movements in the assessment it was much easier for them to understand, how such problems might complicate daily life activities and interaction with others. Stray thought that the children were unrightfully blamed too much for poor behavior, for not being cooperative, easily distracted and fidgety. Bad behavior also is the subject in *Der Struwpeter* on this picture, from a childrens book by child psychiatrist Heinrich Hoffmann from 1845 and probably one of the earliest descriptions of an ADHD child in literature.



From Heinrich Hoffmann: *Der Struwpeter* 1845

Stray on the other hand wanted to show what these children were in fact struggling against. With this battery, sensitive for the specific problems of the children she demonstrates that about 80 % of them have motor problems to some degree. The assessment shows 2 core areas of motor problems:

1. Inhibition problems = problems releasing muscles
2. Problems with proximal stabilization and high muscular tone in compensating key movement muscles

To solve the problems with poor proximal stabilization in order to maintain alignment compensatory movement muscles take over and keep the upper body balanced. These are muscles designed for movement, not for ensuring proximal stabilization.

Their compensatory use restricts movement quality of the shoulder, pelvis and hips and restricts respiration. You cannot expect refined and free movements from muscles that are busy keeping you upright. They are overloaded and because of problems with inhibition the muscles never get to rest. We find constant high tension and the muscles feel like bone, even when the patient is resting.

Stabilizing core muscles don't require much energy to keep the body aligned – and they are the basis for our riding to look effortless. For gross movement muscles static stabilization is hard work. The child easily gets out of breath and might react with increased exhaustion, restlessness and the need to find resting positions.

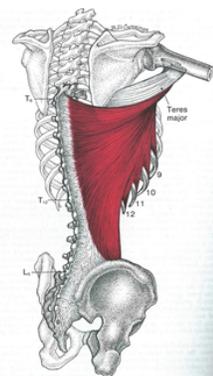
Stray urges us to understand the motor problems of the child as an impairment. An impairment that demands for organizing everyday life accordingly, allowing the child to rest on the desk in school if necessary and finding ways to allow movement during class. Seating that is flexible and using computers instead of handwriting are other measures to consider.

Training of proximal stability is useful for this group of patients. A training situation with instability like in sling exercise has proven effective in activating postural muscles. Ongoing research in Norway on sling exercise for children with ADHD is showing promising results. Medication improves the motor performances of children with ADHD.

Stray also reports that adults find the assessment very helpful in order to understand and deal with the nature of their physical problems.

High tone in
m. Latissimus dorsi

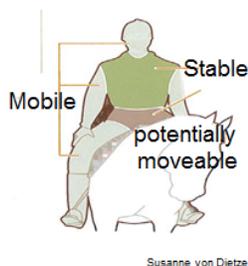
- Restricts free
movement of
shoulder and free
breathing



Anatomical drawing
from Travell and Simons

So what are the consequences of this research for riding?

Quality of movement on horseback

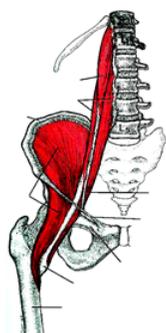


- Stable centre
- Movable pelvis
- Independent arms and legs
- Good alignment
- Grounding
- Joints in flexible middle position

The

High tone in
m. iliopsoas
(Hip flexors)

- restricts hip movement and locks the pelvis in an anterior tilt,
- the rider can't follow the 3-dimensional movement of the horse



Anatomical drawing
from Travell and Simons

qualities of movement that we strive for in riding include a stable upper body, a moveable pelvis, independent arms and legs and a gentle hand. We want the rider to be supple, balanced and in rhythm with the horse. But these are the riders who need to support their arms on the saddle, who need to hold on to the saddle in order to use their legs to kick the horse and who experience trotting as very bumpy.

Without the stable center it is not possible to have an independent seat on a horse.

For the rider with ADHD the problems with proximal stabilization therefore is a central challenge. The stable center also is the basis for the independent arms and moveable legs. The rider with ADHD is caught in her compensatory muscle imbalances with restricted movement in her pelvis, hips and shoulders.

Trying to correct posture will only increase tension as the rider will use the already overloaded movement muscles to meet the correction.

In my physiotherapy tradition I would choose movement to improve these imbalances, but how should I make this meaningful on the horse for an independent rider?

At that point in the process I was acquainted with physiotherapist and riding instructor Susanne von Dietze's work and approach to riding in courses in Scandinavia. I knew right away that I could use this approach for my riders with ADHD. Her understanding of finding new body balance and increased range of motion through movement fits right into the before mentioned Norwegian traditions to improve quality of movement.

Susanne von Dietze allows the rider to move (just like Stray) in order to experience the rhythm and eventually find the balance and suppleness we look for. Corrections like "don't get so tense" are replaced by "things to do, not don'ts" Movements to increase awareness of middle position of joints replace corrections of posture. Basic Body Awareness Therapy (BBAT) shares this approach. Emphasis is on process and on new body awareness through movement. Moving and getting acquainted with ones range of motion allows the rider to become aware of her habitual positions. The rider must be able to move before she can aspire to be able to release.

For Maria this approach was meaningful. She enjoyed the movement in the rhythm of the horse, being a musical child. She eventually increased her range of motion, became more flexible in her pelvis and didn't complain about discomfort when riding anymore. She advanced to riding in a group, to trotting, galloping and some jumping. She stayed riding with me all through her years of school, but never felt confident to move on to an ordinary riding school group and therefore stopped riding when she moved to go to high school.

My next rider that I would like to present is a young woman, Marion, who was diagnosed with ADHD at the age of 21 after giving birth to her son. She had a history of muscular tension and pain, anxiety and depression. The stress of sleepless nights with a baby increased her lifelong feeling of not being in control of reactions and emotions. Her mother was diagnosed with ADHD at that time and Marion wondered if her problems could have the same explanation, which in fact they had.

Ongoing Norwegian research on ADHD and adults shows that only one of 10 women with ADHD got their diagnosis in childhood as to 5 in 10 men. ADHD manifests itself differently with girls than with boys and the problems often aren't recognized before other additional complications arise like anxiety, depression or problems with drug abuse.

I met Marion when I had a body awareness session with local riders a couple of years ago.



She was sitting up straight beautifully on her fjord horse, and it was only when I introduced some of the leg movements I had learned from Susanne von Dietze (mini-cycling which is moving both ankles, thus centering the pelvis) that I became aware of her limitations: She couldn't move her legs the slightest without getting cramps and pain in her hip flexors. Also movement with her upper body could provoke pain in the hips. I had heard that she had ADHD and I made the connection to her symptoms. So this was how the compensatory pattern I had seen in children could develop – when allowed to dominate movement and riding for years.

Marion told me that riding instructors had always praised her posture on the horse, but commented on poor use of her leg and weight aids. Stagnation in her riding because of pain in shoulders and hips and difficulties using her aids frustrated her, her being ambitious and having much of her identity and self-esteem based on life with her horse.



Carriage driving also was a great ambition for her and seemed more achievable as to her limitations, but also here pain in her shoulders could cause her problems. The horse played an important part in all aspects of her life as to activity and consolation. She handled anxiety attacks by going to the horse.

We started working together on her problems. Her tensions were so intense that she often had trouble resting her head on the pillow when she went to bed. Just having an explanation for her problems was an important step for her. Gradually extending her range of motion without triggering the pain gave results. Focused attention during riding and during other daily life activities increased her awareness of her rigid habitual patterns. In addition to increasing her pelvic movement on the horse, we used moveable sitting-solutions for both sitting and exercise (like ball, air-cushion and balimo – see under, stool with moveable seat).

Examples of flexible seating



www.balimo.info

She also did some general exercises with and without the horse to increase flexibility in all of her body.

When she got a more flexible seat a new problem became visible: slouching of the upper body. "But I was never like this", she burst out.

Slouching



From Susanne von Dietze: Balance in Movement

Marion had kept her upper body erect by hollowing her lower back. Once her lower back began to release and her pelvis moved along with the horse's movement, there was no other point of stability ready to take over keeping the upper body aligned and she sloughed.

So our next target was stabilizing exercises for her upper body while riding. We used different exercises in the forward seat. Also we worked on arm-movement to establish appropriate conditions for shoulder stability and independent hands. Moving arms, patting the horse on the left side of its neck with her right hand, while staying centered with her pelvis mobilized her thorax and shoulders. Holding a big imaginary ball in front of her demanded stability.

Holding a big imaginary ball



From Susanne von Dietze: Balance in Movement

This is still ongoing work. Marion lives with her ADHD typical tensions, but together we have found a way to handle them. Her body gave her stabilizing strategies with compensatory muscles. We try to replace these with conscious movement strategies.

As a rider she is now in the position to explore her weight aids, can use her leg aids and is able to demand and support more collection from her horse. And she can now do the mini-cycling without any trouble. This progress has led to her

participation in dressage competitions in LC level with good results. With her development so far we have good faith that more progress will be achievable for her as to general wellbeing and riding skills.

I am convinced that riding with the right guidance represents a valuable training method for this group to work with both proximal stability and increased flexibility. However, if one does not understand their specific challenges, increased tension is to be expected.

Often we put a lot of faith in the movements of the horse. We expect the horse to give the necessary impulse to the rider for her to be able to release and develop a supple seat. In my experience the movement of the horse alone is not enough to achieve this for riders with ADHD and inhibition problems.

The research of Stray and the practical approach of Susanne von Dietze have been a great help to me understanding my observations and act appropriately on them. I have been able to adapt my therapeutic riding approach to the needs of the riders and to give advice to parents and teachers.

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"Balance in Movement 1 – the seat of the rider" DVD

"Rider and Horse Back to Back"

"Rider and Horse Back to Back" DVD

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Travell and Simons: Myofascial pain and dysfunction: The trigger point manual (Muscle function/Anatomical drawings)

Therapeutic Effects of Horseback Riding Therapy on Gross Motor Function in Children with Cerebral Palsy: A Systematic Review

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College of Medicine
School of Allied Medical Professions

***The following is adapted from the OPTA 2011 Poster Presentation presented in Dublin, OH**

BACKGROUND: Cerebral Palsy (CP) is a non-progressive disorder of the brain, which can result in abnormal tone, impaired sensation, and impaired motor control. These impairments can lead to posture, balance, and mobility disturbances. **It is believed that horseback riding therapy, such as hippotherapy or therapeutic horseback riding (THR), can result in positive gross motor improvements in children with CP.**

PURPOSE: To examine the efficacy of riding therapy in children with CP through synthesis of research evidence.

▪ **Questions that guided our review included:**

- 1) **Which classifications of CP respond to riding therapy?**
- 2) **What treatment frequency and duration are associated with gross motor function improvement?**
- 3) **Which gross motor outcomes are associated with riding therapy?**

METHODS: Databases were searched for clinical trials of hippotherapy or THR for children with CP. To be selected for inclusion in the review, studies had to meet specific criteria and had to be rated by the authors as a 3/10 or above on the PEDro scale.

RESULTS: Of the 63 articles identified, 9 were included in this review.

STUDY	DESIGN	SAM PLE	INTERVENTION	OUTCOME MEASURES	EFFECT SIZE
Mackinnon et al., 1995	RCT	19	Hippotherapy & THR	Posture Assessment Scale, GMFM-88, PDMS , BOTMP	PDMS p=0.045 No other significance

Davis et al., 2009	RCT	72	Hippotherapy & THR	GMFM-66	No significance
Sterba et al., 2002	Repeated-measures	17	THR	GMFM-88	d=0.96
McGibbon et al., 1998	Repeated-measures	5	Hippotherapy	Gait assessment, GMFM-88 E	<p>↑ stride length d=0.44</p> <p>↓ cadence d=0.24</p> <p>↓ energy expenditure d=0.61</p> <p>GMFM d=0.51</p>
Casady & Nichols- Larsen, 2004	Repeated-measures	10	Hippotherapy	PEDI, GMFM-88	<p>PEDI r=0.79</p> <p>GMFM r=0.84</p>
Bertoti, 1988	Repeated-measures	11	Hippotherapy	Posture Assessment Scale	d=1.69
Hamill et al., 2007	Repeated-measures	3	Hippotherapy	GMFM-88, Sitting Assessment Scale	No significance
McGee et al., 2009	One group, pretest-posttest	9	Hippotherapy	GAITRite	No significance
Shurtleff et al., 2009	One group, pretest-posttest	11	Hippotherapy	Video Motion Capture UE functional reach test	p<0.05



Our synthesis demonstrates that riding therapy results in significant improvements in the domains of walking, running, & jumping

▪ **Significant improvements in gross motor function are a probable outcome of riding therapy when:**

- ❖ The participants are children with spastic CP who are ages 4 or older.
- ❖ At least weekly 45-minute sessions over 8-10 weeks are provided.

CONCLUSIONS: The current literature on riding therapy is limited. More randomized trials, with larger sample sizes and consistent protocols are needed to determine the effects of riding therapy on children with CP. From the current evidence, it appears that



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Secretary's Report

Sheree York PT,DPT, PCS USA: News from the Section on Pediatrics, American Physical Therapy Association



Join us for the magic of Disney World and opportunities for learning and networking at the **3rd Section on Pediatrics Annual Conference (SoPAC)** in Lake Buena Vista, FL, in September. Here are some highlights of the conference:

Sept 26 and 27: 2 two-day pre-conference courses

- Linked: Breathing and Postural Control with Mary Massery PT,DPT,DSc
- APTA Clinical Instructor Education and Credentialing Program with Lisa Kenyon, PT,PhD,PCS

Sept 27: 3 one-day pre-conference courses

- Advanced School-based Physical Therapy with Sue Cecere, PT,MHS, Laurie Ray, PT,PhD, and Larry Rechlin, PT
- Boot Camp for Students and Young Professionals with Caryn Barman PT,DPT,PCS, Alyssa LaForme Fiss PT,PhD,PCS, Britta Battaile, PT,DPT,PCS, and Ken Swantek, SPT
- Power Wheels Workshop: Build Your own Modified Racecar... Seriously! with James Cole Galloway, PT,PhD and Hsiang han Huang, OT,ScD

Sept 28-30: Conference featuring 6 tracks for neonatology, school-based therapy, early intervention, hospital-based care, adolescents and adults with developmental disabilities and professional education and mentoring. The keynote speaker is Karen Adolph, PhD. Round tables will be held each day with a variety of topics to choose from. The *IOPTP will participate in a round table on International Service Opportunities: A Global Perspective.*

Go to www.sopac.us for more information on the conference, lodging and registration

Save the Date

The **4th SoPAC** will be held at **Disneyland in California in November 2013**. This conference has been chosen as the **mid-term conference for IOPTP**. The IOPTP Board and the SoPAC planning committee are working together to provide presentations and opportunities to network across specialty areas and geographical and cultural perspectives. **Pre-conference courses will be held November 6 and 7 with the conference following on November 8 through 10**. Watch for updates as speakers are confirmed and the program is finalized by spring of 2013. The call for proposals from speakers will be posted in August 2012. Go to www.pediatricapta.org for more information about these conferences and other resources provided by the Section on Pediatrics, APTA.

World Physical Therapy Day SEPTEMBER 8, 2012

New message, new logo, new materials



WCPT has developed a brand new range of materials to help you organise activities and campaigns for World Physical Therapy Day 2012. As in previous years, WCPT's suggested theme is *Movement for Health*, and this year we have also produced materials with a specific message: Fit for life. We are encouraging physical therapists around the world to highlight the importance of physical activity throughout the lifespan.

The following materials are now freely available for download from the WCPT website at www.wcpt.org/wptday:

- new World Physical Therapy Day logo
- ready-to-print posters and flyers/leaflets
- ready-to-print banners
- World Physical Therapy Day booklet
- booklet of clinical resources for physical therapists
- e-cards
- stickers
- ready-made tweets and Facebook postings
- t-shirt design

Good luck with planning your events and don't forget to send us the reports of your activities!

We are seeking submissions for the next newsletter. The focus for the next newsletter is Education. We welcome all submissions about educational techniques, use of technology, resources, etc.

Submissions are due December 15, 2012.

Please send submissions to Erin Wentzell at ewentzell@gmail.com