

The IOPTP Newsletter

Edition 15, August 2015

Greetings, Recognition, and Introductions

Greetings from your new President: I am honored to begin my term as President of the International Organisation of Physical Therapists in Paediatrics. It has been a privilege to serve as Secretary from the inception of IOPTP and learn from the other officers, WCPT leaders, committee chairs and various individuals about the great work of physical therapists around the world. After participating in the WCPT Congress ("conference" to most of us) and General Meeting (decision making body) in 2007, 2011 and 2015, I recognize all the resources and opportunities for networking across the world of PT.

Gratitude to those who have lead IOPTP so well: I would like to express my sincere gratitude to the officers and committee chairs who have worked so diligently to begin and grow our IOPTP. A tribute to our first president, Barbara Connolly, is included in this newsletter. She has contributed greatly to PT in the US and in outreach with other member organizations. She has been an inspiring leader, encouraging mentor, and loyal friend to so many from 2007-15. We are fortunate that she has agreed to continue to serve as Education Committee Chair of the IOPTP.

Other officers who have served for the first two terms of the IOPTP include Treasurer Ria Nijhuis-Van Der Sanden, Netherlands, and Member-at-Large Hilda Mulligan, New Zealand. Both have served on committees as well as serving on the executive committee. Ria worked with all member countries in managing dues payments (such a challenge and learning experience in international banking). She was elected as our new Vice President.

Hilda did an excellent job of reaching out to other member organizations, encouraging participation, representing issues among members, and serving as our Nominating Committee Chair. Hilda has agreed to serve as the Research Committee Chair.

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For submissions or questions regarding the newsletter please contact the newsletter editor Erin Wentzell PT, DPT, PCS at ewentzell@gmail.com

Anne Berle Robstad, Norway, served as Vice President in our second term. She helped complete revisions of our Constitution and contributed to both mid-term conference meetings and executive committee discussions and decisions. Anne is completing a fellowship in mental health. We will welcome her input as she is able to join us again and share her new experiences and knowledge.

Outgoing and Incoming IOPTP committee chairs include:

Communications: Erin Wentzell, US, has edited our newsletter and helped identify other ways information can be shared. We are glad that she will continue to serve in this role and had additional volunteers offer to help in the coming years.

Education: Eva Brogren Carlberg, Sweden, has worked with a committee of 7 to identify requirements for entry-level PT education, curriculum related to paediatrics, and other resources. Barbara Connolly will be the committee chair for the next term.

Practice: Esther de Ru, Netherlands, served as our first Practice Chair, helping identify resources available from various countries. Marquerithe Barree, Switzerland, will be stepping into this role and has 5 committee members.

Programs: Dale Scalise-Smith, US, has provided leadership in planning WCPT and mid-term programming and activities for IOPTP. Dale has also agreed to continue in this role.

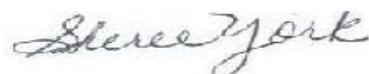
Research: Ann Van Sant, US (and PPT editor) has lead a group of 15 to identify research needs and opportunities. Hilda Mulligan will take over this role.

Member Organizations/Countries: The IOPTP membership is now 23 member organizations strong. Welcome to our newest member organizations: Austria, Ethiopia, Finland, Japan, Korea, Nigeria, Portugal, and Turkey.

Much has been accomplished in our first 8 years. I look forward to meeting more of you through email or at meetings as we continue to work on addressing needs and sharing resources to provide the best education for new paediatric PTs, continuing education and information for paediatric PTs around the world, and services for children and their families.



Respectfully submitted,



President, IOPTP



The IOPTP FACEBOOK page is a great resource for upcoming events and information on the IOPTP and the WCPT Congress. It is also a great resource for information on pediatric physical therapy with an international perspective on research, practice and advocacy.



IOPTP Committee Reports Highlights from the WCPT in Singapore:

Highlights from WCPT IOPTP Meeting in Singapore 2015



The IOPTP General Business meeting was held May 2 at the Pan Pacific Hotel in Singapore. Delegates from 12 member organizations, representatives from 4 member-elect organizations, and additional visitors from 5 additional organizations were present. A ppt was presented by the Secretary to review the IOPTP's accomplishments of the last 4 years. 5 new officers and 8 new member organizations were elected.



Officers

- Sheree York, President: United States
- Ria Nijhuis-van der Sanden, Vice President: The Netherlands
- Karen Hurtubis, Secretary: Canada
- Grace O'Malley, Treasurer: Ireland
- Kristy Nicola, Member-at-Large: Australia

Member Organisations

- Austria
- Ethiopia
- Finland
- Japan
- Korea
- Nigeria
- Portugal
- Turkey

Committee chairs and newly appointed chairs

- Education Committee: Eva Brogren Carlberg (Norway) -> Barbara Connelly (US)
- Practice Committee: Marquerithe Barree (Switzerland) appointed upon resignation of former chair, Esther de Ru
- Communications Committee: Erin Wentzell (US) re-appointed
- Research Committee: Ann Van Sant (US) -> Hilda Mulligan (New Zealand)
- Program Committee: Dale Scalise-Smith (US) re-appointed

Dr Van Sant announced that the new editor of *Pediatric Physical Therapy* will be Linda Fetters. She takes over on Jan 1, 2016. Kivmars Bowlings, the PPT publisher for Wolters Kluwer, was introduced. *Pediatric Physical Therapy* has now been accepted as the official pediatric PT journal of Canada, Netherlands, New Zealand, Switzerland and the US. Taiwan is translating the abstracts for their members.

Sheree York acknowledged those who have served as officers, committee chairs, committee members, congratulated the newly elected officers, and welcomed the new members. (see pictures)

Educational Programming included:

May 2 IOPTP Seminar - Global perspective on best practice in paediatric evaluation tools and interventions Speakers: Elbasan, Mulligan, Schreiber, Van Schie

May 4 IOPTP/INPA Seminar – Lessons to be learned : Transition from childhood to adulthood for individuals with lifelong disabilities
Speakers: Dodd, Hammond, Scalise-Smith, Taylor

The IOPTP reception was held in the Pan Pacific Hotel 22nd Floor with a beautiful view of the city, scrumptious hors d' oeuvres, and warm hospitality among the participants. (see pictures below)



Highlights of the IOPTP Networking Sessions

IOPTP Networking Sessions MAY 3, 2015
7:00 – 8:30, Suntec

Education

Participants:

Wen-Lu Liu, Taiwan wylpt@cgu.edu.tw

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Facilitator Ria Netherlands Ria.Nijhuis-vanderSanden@Radboudumc.nl

Ideas for the Education Committee

- Defining the content of educational trajectories
- International Winter- or Summer courses focusing on different groups: for post graduate students or even for educators courses to find international consensus on important topics (see below). Connected to these courses or separate we can offer also programs to starting students to connect students in pediatric physical therapy together.
- Traveling course: courses can be offered regional but are informed by an international group of educators who circulate each others' content part, so this will reduce travel costs for educators and students, while the content will be of a high level.
- It is mentioned to use Elsevier or other publishers to translate already existing books for other languages taking into account cultural and economic differences
- Another possibility which was mentioned was to use webinars and chat sessions for education.
- It was also suggested to have a pool of mentors who can coach educators, students and practitioners

- There was a suggestion to integrate guidelines in education: this can also be done internationally, so checking content of courses with the existing guidelines to avoid not non reliable knowledge transfer

Topics for the future:

- Motor learning: what do we know about motor learning? how do we offer motor skill training to our pediatric patients? How do we inform the parents and other involved educators? And what are the differences in the world?
- Preterm infants: We know that preterm infants are at risk for developmental problems. But how are they followed up in different countries? And which pediatric physical therapy programs are offered? Which interventions are done in the first year but also later on during growing up.
- Scoliosis: which diagnostic assessments are used, how to handle comorbidities? It seems that variation is large in scoliosis diagnostics and treatment.
- An important topic was also the use of measurements instruments during diagnostic and evaluation assessments. Which instrument? At what age? For which patient group? Are norm references available?

Summary

During the discussion it was clear that all members wanted to be active in the development of the next step, so maybe we can form small working groups on specific topics.

Health Promotion

Participants:

Reeta Finland
 Mary USA
 Cindy USA
 Avymi Japan
 Mulgeta Ethiopia
 Natalie South Africa
 Tasutaka Japan

Facilitator Marquerithe- Switzerland

Ideas for the Practice Committee

- panel to present different models of health promotion
- Who addresses feeding issues in your country? Ethiopia: Malnutrition is common in his country, no speech therapists and only 1 OT. "little nurses" are trained to help out in the community. Finland: Feeding issues are addressed systematically from birth. Programs include speech therapists. Japan: Obesity is a bigger problem today than years ago. South Africa: Interest in HIV-AIDS related issues. Taking proper nutrition and medications is essential. Ethiopia: higher incidence of chronic diseases. Likely to over eat and a decline of activity, especial in the cities. USA: Cindy Miles runs a fitness program with volunteer "coaches" for adolescents and young adults with disabilities. Swiss program for children with obesity required parents to be present and active during the sessions. In Finland PT's are involved with patients with anorexia. Also Finland uses exercise programs for kids with "behavioral issues and not just kids with autism. South Africa: Behavioral issues dealt with in school and private practice.

- Japan: was interested in the implications of strengthening muscles in children with CP and why it didn't translate to improve function.
- Do we need to change the payers' perception of health management? They pay for correction but not prevention of problems.
- How much exercise is needed per day to keep kids healthy? Some articles in APTA pediatric PT journal. Finland suggests maximal sitting time per day.
- How do we effectively share good ideas about health between countries? "Guidelines" published in IOPTP website
http://www.wcpt.org/sites/wcpt.org/files/files/Guidelines_IOPTP-January2015.pdf
 We can add more postings, but Marquerithe has found it difficult to get feedback.
- How do we make it easier to disseminate information across the globe? Decision trees? Guidelines? List serves? Make shorter 7 summary "guidelines", to make it easier to access information. APTA Section on Pediatrics "fact sheets" available at
<https://pediatricapta.org/fact-sheets>
- Do we screen for scoliosis in our countries?
- Cindy: IOPTP could "announce" the ability to "partner" member with APTA Section on Pediatrics to get access to the *Pediatric Physical Therapy* journal for a reasonable cost.

Summary

Discussed health issues in each country including: Obesity, inactivity feeding and HIV-AIDS
 Discussed fitness programs in different countries, how do we share ideas between countries, IOPTP website Links already has guidelines, "partnering" with APTA Section on Pediatrics, other easy ways to share? Time is always an issue.

Infants/Preschool Networking Session

Participants from Estonia, Brunai, India, US, Norway, Korea, Thailand, Cyprus, Netherlands, Norway, Switzerland

Challenges: clinical teaching, keeping up with practice, networking to learn, engaging families, determining appropriate frequency of services, "free services" may lead to less family buy-in and participation,

Resources:

GMA: using for earlier services and higher frequencies

GMFM to predict GMFCS and justify services

AACPDM: diagnostic criteria for Cerebral Palsy

Mullen Scales for Early Learning

Zero to three

Pathways Awareness

CHOA: Tummy Time Tools

Help.org (book on CP,BPI, etc)

Pediatric PT&OT: discussion group on Facebook

Latest article by Kathy Morgan and Iona Novak: equipment, dosing, coaching

www.global-health.org

Jean Pierremaes: working with CP, handling and communication, use of toys, context

Medek: using GMFM percentiles to guide frequency of services

Maryland: coverage for congenital diagnoses: insurance cannot limit number of visits, reported to insurance commissioner and attorneys, re: equipment

Ideas

Summarize findings of roundtables in newsletter or on website

Ginny Paleg to send articles, search CP, CanChild

Continue roundtables

School-based Services

Challenges: special schools for services, no therapies in inclusive schools, families unable to take children to therapy

Entry-level PT education: limited time to cover pediatrics, especially school-based services

Ideas: IOPTP help with educational programming for school PTs

Research

Challenges: ethics, research designs (some limit translation)

Ideas:

Single subject designs

Qualitative studies

IOPTP programming on how to write grant applications and ethics

Welcome Officers and Committee Chairs

Introducing Sheree York: the incoming IOPTP President



IOPTP President, Sheree York, and WCPT President, Emma Stokes

Sheree York, PT, DPT, PCS is the Director of Physical Therapy and Occupational Therapy Department and Early Intervention Services at Children's of Alabama. She received BS and MS degrees in Physical Therapy from University of Alabama at Birmingham and her Doctorate from Rocky Mountain University of Health Professions. She completed a Maternal and Child Health fellowship at the University of North Carolina at Chapel Hill. She is an American Board of Physical Therapy Specialties pediatric certified specialist.

Dr. York has over 30 years experience in working with children in various settings. Her most recent areas of practice include Newborn Follow-up Clinic, Early Intervention and NICU. She served on the Alabama Governor's Early Intervention Interagency Coordinating Council and on various committees focusing on training EI providers. She has served the American Physical Therapy Association in various roles at the state and national level (Alabama Chapter Legislative Chair, Delegate, Chief Delegate and President; Section on Pediatrics State Representative, Regional Director, Education Committee Chair, Vice President, and President; APTA CSM Review Steering Committee and Learning Center Committee). She is currently Chair of the Hospital-based Special Interest Group of the Section on Pediatrics. Dr. York served 8 years as the Secretary of the International Organisation of Physical Therapists in Paediatrics and was recently elected President of the IOPTP. Awards include the Section on Pediatrics Bud de Haven Service Award, APTA Lucy Blair Service Award, Alabama PT Association Leadership Award, UAB Department of PT Alumni Leadership Award, and UAB School of Health Professions Fab 40 Alumni Award. She currently serves on advisory boards for Hand in Paw, Greater Birmingham Auburn Club, and the UAB School of Health Professions.

Dr. York enjoys travel and visiting with friends and family, volunteering, and attending college football games. Her husband, Mel, also a UAB graduate in Occupational Therapy and Healthcare Administration, manages a day care center for adults with Alzheimers and dementia. Her daughter, Sarah, is also an OT, working at an acute care hospital in Florida. Welcome Sheree!

Introducing Karen Hurtubise: the incoming IOPTP Secretary



Karen has been a physiotherapist for over 20 years with a focus on pediatrics, across the continuum of care, specializing in both acute care and rehabilitation, in all practice areas. She has held a variety of clinical leadership roles across Canada and a number of national volunteer leadership positions with the Canadian Physiotherapy Association. She has experience as a rehabilitation day program and multidisciplinary clinic coordinator, and as an assistant manager of a hospital wide rehabilitation program. She has developed, implemented, evaluated, re-designed and sustained significant change in the programs she has led and managed to improve the care provided to children, youth and their families.

Karen combines her leadership responsibilities with teaching and research activities. She teaches a program development course in a master's of rehabilitation science program and is a sessional lecturer in neurodevelopmental pediatric, professional issues and qualitative research topics for the entry-level graduate physiotherapy program.

She earned a Bachelor of Sciences (Physiotherapy) in 1992 and completed a Master of Rehabilitation Sciences in 2009. Her research interests have evolved to include both parent and children/youth rehabilitation experiences, parent learning, access and quality improvement, and program (re)development and evaluation. She is currently a doctoral student in Health Sciences Research.

She lives in St. John's, Newfoundland Canada with her husband and two grown step-children and enjoys trail running, cooking for friends and family, and traveling adventures. Welcome Karen!

Introducing Hilda Mulligan: incoming Research Chair



Hilda Mulligan completed her undergraduate training at University of Cape Town in South Africa and worked in adult neurorehabilitation and paediatrics until emigrating to New Zealand in 1990. She worked in community paediatric service (visiting children with disability at home and school settings) before embarking on a teaching career at Otago University. She completed a Masters programme and then later a PhD, with a focus on physical activity for people with disability. Besides neurorehabilitation, she teaches undergraduate paediatric content, supervises students in clinical placements and supervises postgraduate students both in course work and in their research theses. One of her PhD students is currently investigating recreation and leisure pursuits of children with disability in New Zealand.

She loves the outdoors, gardening and most of all, interacting with her 'free' (three) year old grandson who has taught her "more about childhood development than any text books or even my own children ever did!" Hilda is the outgoing Member at Large for the IOPTP and the new chair of the research committee. Welcome Hilda!

Clinical Spotlight: Aquatic Therapy Program: Collaboration through Global Health Service Learning Course



Provided by Dale Deubler, MS, PT, Instructor, The Ohio State University Physical Therapy and Marian Hylkema, Director, Solyluna, a.c.

Solyluna (<http://Solyunamx.blogspot.com/>) is an innovative educational and therapeutic program for children with unique learning needs and their families in Mérida, Yucatán, México. By offering a wide range of medical, educational and therapeutic services, the privately financed program aims to integrate children with multiple disabilities into family life, appropriate

educational settings and the community. The aquatic program has been ongoing for at least 5 years and is available to all children, providing the child has one adult who is able to be an assistant in the pool. The aquatic sessions are held at an aquatic center in Mérida, Aquatico Lalo. During each one hour intervention session, the child's intervention is directed by one of the staff therapists who monitor progress and make changes in each child's program as needed. The aquatic program stresses health and safety, encouragement of active movement that can be used for functional skill building, recreational skill acquisition, and socialization in a fun environment.

Beginning in 2011, faculty and students from the Division of Physical Therapy, School of Health and Rehabilitation Sciences, The Ohio State University, Columbus, Ohio, USA have partnered with the Solyluna staff and families to assist in the adapted aquatics and aquatic physical therapy component of the curriculum. In addition to working with the children, parents and staff in the pool, continuing education has consisted of the use of aquatic assessment instruments, approaches for meeting individual behavioral needs, goal setting and incorporation of the International Classification of Functioning, Disability and Health. During the past 4 years, direct contact between the group from OSU and Solyluna has been limited to approximately 16 hours. Although the hours have been limited due to the length of the global health service learning course, positive changes have been noted by parents, therapists and the program director.

The goals for this collaboration were developed in consideration of the very limited amount of contact. The goals are to assist the staff at Solyluna to meet the needs of the children by providing continuing education in the classroom and the pool, assisting the parents of the children in gaining comfort and safety in the pool, and to providing OSU DPT students with a global health experience that meets the needs of the program.

In 2014, the Humphries' Assessment of Aquatic Readiness (HARR) was translated into Spanish and introduced to the staff as a possible instrument to objectively assess the children's skills. This instrument has been translated into Spanish with only a slight modification. The portion of the HAAR pertaining to holding water in the mouth and spitting it out was intentionally omitted.

The role the parents have in this program is critical. Each year, there are a number of parents participating in the Solyluna program who have no previous exposure to swimming or aquatics. Involving these parents in the aquatic program is a unique aspect of Solyluna. During each session while the children are receiving intervention from university students, the DPT students the Solyluna staff and other volunteers, the parents receive a 10 minute water safety/ swim instruction and practice session, including relaxation/floating, submersion and breath holding. For these parents, gaining confidence in the water can be seen in the growth of their willingness to help their children move in the water. Following the instruction/practice session, parents join the staff and volunteers who have been working with their child. The parents work with the child and staff for up to 50 minutes.

Each session is individually structured based on the child's goals. Some children require a warm up period while others are ready for active exercise from entry into the water. A few children have mastered independent stroking while others are dependent in all movements. Work on

activities to encourage meeting goals that incorporate skills done in a seated position are easy to incorporate into the session because there is a permanent bench with water depth of approximately 30 centimeters. This bench is also useful when working on standing and walking skills because the pool is over 150 centimeters deep, far over the heads of the children.

Changes planned for the program may incorporate a session for those children who have gained independent swimming skills. This additional session for recreational swimmers will open up spaces during the therapeutic skill sessions for children who have not been able to be accommodated. Parental participation will continue in both sessions. Shared aquatic experiences will continue to be part of the program as Solyluna works to promote healthy relationships and activities that families can share.

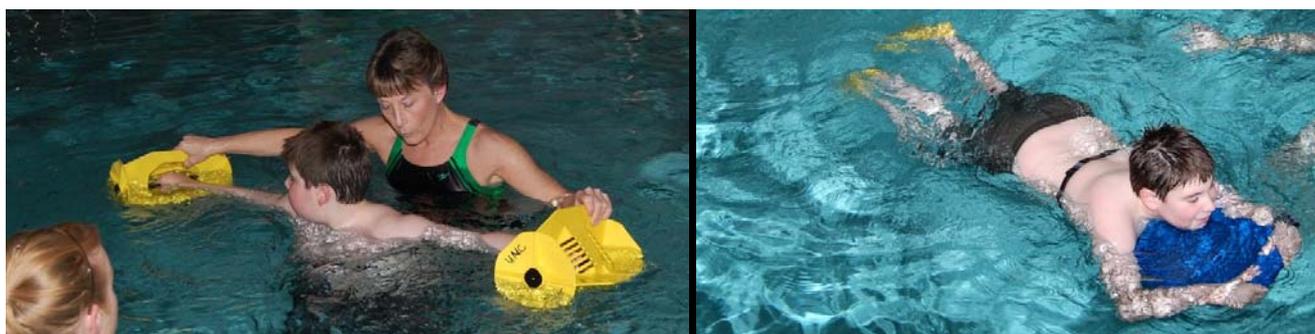
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Humphries K. Humphries' Assessment of Aquatic Readiness. Unpublished Master's Thesis. Denton TX, 2008.



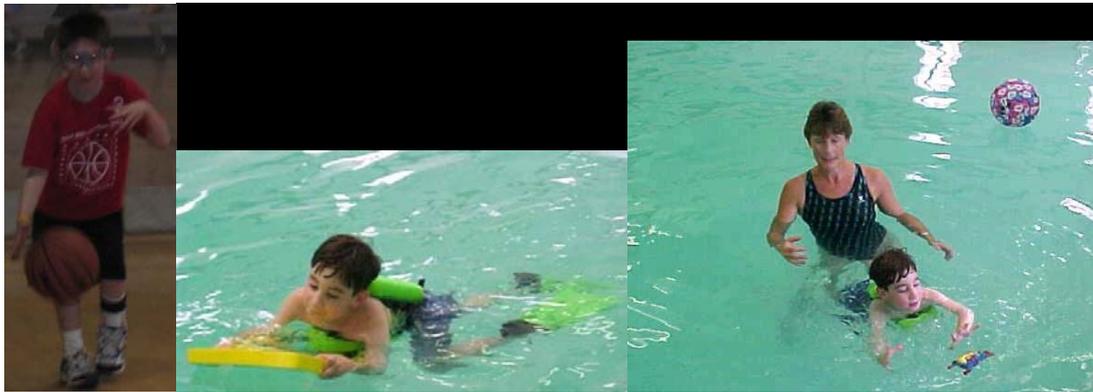
Clinical Spotlight: From aquatic therapy to Paralympic hopeful: No dream is too big!!

By Debbie Thorpe



Logan is a young man who marches differently to every drum. His intelligence, energy, enthusiasm and bravery are what define him, [cerebral palsy](#) (CP) is just something with which he was born. Through humility, bravery, creativity, determination, and joy for life, Logan strives for his best performance for which ever goal he has set.

Logan weighted three pounds at birth and was diagnosed with spastic CP as an infant, with involvement in three limbs. He walked at two years of age using a walker and ankle foot orthoses and independently at three years of age with ankle foot orthoses. Logan had a selective dorsal rhizotomy (SDR) at four years of age. His parents pushed to have him in placed in a typical classroom setting for all of his education and he is presently on course to graduate from high school and attend college.



I met Logan over fourteen years ago when his mother contacted me regarding aquatic physical therapy services following his SDR surgery. I provided Logan with aquatic and land-based physical therapy for several years and then suggested that he engage in community sports and recreation. Providing opportunities for Logan and his family to experience interactions with other children and families in community aquatic facilities during those early aquatic therapy sessions, not only eased their anxiety, but also helped to educate others as to the skills Logan possessed (as opposed to his impairments). These experiences also cultivated healthy interactions and exchanges of information related to other available community activities. Subsequently, at the age of six, Logan started to participate in community-based soccer and eventually, basketball leagues.

In the spring of his eighth year, Logan had proximal derotational pelvic osteotomy surgery. I spoke with the surgeon and instead of casting, (as long as Logan could be compliant with non-weight bearing status) he agreed to allow him to participate in aquatic therapy ten days post-surgery. It was during the summer and I provided aquatic therapy at an outdoor community pool, starting with non-weight bearing exercises progressing to increased weight bearing as appropriate. Logan increased strength in his trunk and extremities, and was ready to play soccer that fall. At age nine, Logan realized that he could not compete with his peers in soccer as they grew stronger and faster. He continued to play basketball up to middle school until, unlike community leagues, there were "try-outs" and only the most skilled made the cut. As Logan became less active, he gained weight, moved less, and lost strength. I continued to provide "tune-ups" of land and aquatic-based physical therapy to Logan throughout this period but he constantly battled consistent weight gain (secondary to inactivity and medications) resulting in decreased activity levels.

At the age of twelve, Logan's mother encouraged him to participate in a 10-week research study of mine. We provided him with a one-on-one aquatic exercise mentor. He participated three days a week in 45-minute aquatic exercise sessions, and was also given instruction on how to improve his swim strokes. At the completion of the study, Logan had lost some weight, and gained strength and confidence in his swimming abilities. He joined a local YMCA swim team which happened to have several other members with physical disabilities. He began by just practicing with them. His coach contacted me to help him with some training ideas to improve Logan's strokes and speed. I attended Logan's first swim meet, where all but three of the swimmers were able-bodied. His entry dive was like a "cannon ball" but he came up swimming and finished the race....dead last...but he finished. Every swimmer from every team stood and cheered as he climbed out of the pool. He was un-phased by placing last and focused solely on "beating his time" at the next meet.

By age fourteen, Logan was training several hours, 5-6 days per week. At swim meets he continued to finish last but swam only to beat his previous time. His body started to change...and he developed the body of a swimmer....an athlete. One of the other swimmers with a disability was training for the Paralympics and Logan became motivated to train for the same goal. By age sixteen, he has gotten his driver's license and a car so that he could increase his workouts to twice daily. His YMCA coach was so motivated by him that he and Logan went to a Paralympic training camp so both could gain more knowledge about being a Paralympic coach and athlete. Logan began to compete in Paralympic trials, improving his times, but not winning. He was competing with Paralympians who were less physically involved due to his initial "athlete classification".



Logan is now eighteen. He has become an active advocate for individuals with disabilities. He is interviewing colleges and continues to train for the 2016 Paralympics. He just returned from the CAN/AM Para-swimming Championships in Canada, where he petitioned to be reclassified, to enable him to compete with athletes of the same functional level. Watch for him in 2016!!!

Early in his life, through aquatic therapy, Logan first experienced the benefits of water. As he grew older, water "evened the playing field" and allowed Logan to exercise at a high level of intensity, believe in his abilities, and fully participate with his peers. Through competition and training, Logan has developed physical and emotional maturity and he is convinced that "no dream is too big"!!

Clinical Spotlight: A reaction to the Clinical Spotlight on Pediatric Aquatic Therapy, published in the IOPTP newsletter, edition 14, February 2015.

Author: Johan Lambeck PT, Free Research Associate, Faculty of Kinesiology and Rehabilitation Sciences. KULeuven University, Belgium and Senior Lecturer Water Specific Therapy-Halliwick in the Association IATF, Valens, Switzerland.

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Note:

Water Specific Therapy is the (physical) therapy application of the Halliwick Swimming Method, started by McMillan (1977) and a group of physical therapists in the seventies in the medical center in Bad Ragaz, Switzerland. Water Specific Therapy uses the fluidmechanical constraints to purposely change motor behavior on land. Halliwick Swimming aims at skill development in the pool, these might have carry-over effects to land. Kokaridas and Lambeck (2015) have given a comprehensive description of WSTH and Halliwick.

- Water Specific Therapy-Halliwick will be abbreviated as WSTH
- Halliwick Swimming Method will be abbreviated as Halliwick

Introduction

Therapeutic aquatic exercise programs and swimming can provide a fun and motivating form of physical activity, supporting physical, social and emotional well-being for children and youth. This has been addressed by a CanChild review (Gorter 2011) and in more recent literature from e.g. Declerck (2013) and Fragala-Pinkham (2014). It is amongst the most commonly selected modes of physical activity by children with CP and their parents (Brunton and Bartlett 2010) and parents choose aquatic activity as first choice in addition to regular therapy (Hurvitz 2002). Pediatric aquatic therapy has a history that roughly started with the foundation of Halliwick in 1949, as has been pointed out in the contribution by Gillian Adams.

The author of this article has been extensively trained by James Macmillan, the founder of Halliwick and can only underpin the significance of Halliwick in teaching children with special needs to swim. Group activities and games were described in a framework of therapeutic objectives by an early cooperation with Margret Reid-Campion. Since her publication in 1986 "Hydrotherapy in Pediatrics", pediatric aquatic therapy has developed substantially. These developments were hardly addressed in the clinical spotlight of the previous newsletter. An impressive amount of publications about Halliwick and Water Specific Therapy, many of these referring to children and youth, can be found at <http://www.halliwick.net/en/literature/articles> . The most recent systematic literature review

(Karlinka 2013) identified 67 publications on aquatic interventions for children with disabilities. Most of the interventions covered children with cerebral palsy. The analysis revealed clinical relevant effects at all levels of the GMFCS, see table 1

Table 1

| | Intragroup MCII | Intergroup effect size |
|---------------------------------|-----------------|------------------------|
| Strength | ✓ | |
| Range of Motion | ✓ | ✓ |
| Tone | ✓ | ✓ |
| Oxygen uptake | ✓ | ✓ |
| Energy expenditure | ✓ | |
| Walking time | ✓ | |
| Functional walking and standing | ✓ | ✓ |
| Performance | ✓ | |
| Satisfaction / participation | ✓ | |

MCII = Minimal Clinical Important Increase

WSTH: ICF and assessment

Getz (2006) was the first one who used the ICF framework for goal setting in HWST aquatic therapy. She used the change of the environmental context factors to describe the fluidmechanical constraints in relation to the dynamic systems model of motor learning. The Spanish physical therapist Javier Güeita finished his PhD studies in 2014 with a thesis, based on a worldwide Delphi study amongst pediatric aquatic physical therapists, in order to identify the intervention categories for aquatic physical therapy in disabled children using the ICF-CY. The goal is to develop a core set of objectives in pediatric aquatic therapy. Paediatric aquatic intervention studies are unique because of the fact that in general motor skill development in water is a part of the measurement instruments. These are mostly (adapted) swimming test, of which there are many. Assessments for children with special needs are mostly related to the Halliwick: in order of frequency in literature: Water Orientation Test Alyn (WOTA), Humphries Assessment of Aquatic readiness (HAAR) or Swimming With Independent Measures (S.W.I.M). WOTA has meanwhile been translated in various languages.

WOTA's predecessor, the Aquatic Independence Measurement has been used by Getz (2006) in combination with the GMFM. She found a high correlation between changes in Mental Adjustment (vertical activities like walking and jumping) and changes in the D and E domains of the Gross Motor Function.

Dimitrijevic (2012) investigated the effects of a 6 weeks intensive swimming programme with Halliwick elements, resulting in significant changes in the WOTA, but insignificant changes at follow-up in the GMFM. Swimming in itself does not seem to elicit lasting effects on land.

The HAAR showed an average increase of 22.51% to 37.66% in each stage (Pan, 2010 & 2011), and might be an alternative for WOTA. Pan's interventions were based on Halliwick.

Hands-on WSTH

Early learning stages include adjustment to water (mental adjustment, aquatic readiness) and in general need hands-on guidance. The goal – in Halliwick - is to reduce supports, but this is not always possible in especially the more severely disabled children.

Meyer and co-workers are amongst of the few to document aquatic therapy with children in GMFCS V (Meyer 2013 & 2015, Thibaut 2005, Tomaszewski 2015).

There are 2 ways to proceed in these children: floatation aids to secure stability and unrestricted breathing or hands-on treatment (based on WSTH), focused on trunk- and head control as basis for mouth- and arm function. Function of the legs mostly will be restricted by the way of handling. Hands-on based on WSTH includes almost automatically elements of dry land neurodevelopmental techniques. Meyer found that WSTH sessions increased head control (time and angle of normal head extension), thoracic trunk extension, ROM of arm joints with a concomitant decrease of proximal spasticity.

These findings confirmed a conclusion by Getz (2006) that the advantages of her WSTH intervention especially showed up in the more severely disabled children in GMFCS V.

Hands-off aquatic activity

Aerobic condition (heart rate, oxygen uptake, energy expenditure) is the main theme of most articles that include words like swimming, games, gait, running or jumping in the abstract. Fragala-Pinkham's group focus on these themes and meanwhile published a series of articles (Fragala-Pinkham 2008,2009, 2010, 2011, 2014; Retarekar 2009). In compliance with e.g. the American Academy of Pediatrics (AAP), activities are offered that are interesting, enjoyable, motivational and in groups (Dymant 1991). In this, there are resemblances with Halliwick. The AAP also advocates the use of moderate- to vigorous intensity at a level higher than a heartbeat of 150.

Consistently, Fragala-Pinkham reported clinical relevant changes in walking endurance by e.g. the half-mile walk/run test or Energy Expenditure Index.

Sensory items and feedback

Immersion and movement change the information to the central nervous system (Sato 2014). This might influence sensory processing and integration. Research is lacking however and publications are descriptive (Freedman 2011). The environment can be regarded as a multisensory environment and comparisons exist with snoezel rooms (Lavie 2005, Bommer 2008)

Teaching aquatic skills needs feedback. A rather new development is to use pictograms or even video prompting, with or without time delay. Some publications exist in the area of

autism spectrum disorders, in which the intervention is based on Halliwick (Yanardag 2013, Hooft 2015)

Future

Although the body of aquatic knowledge is quite impressive (The author manages an aquatic database at the KULeuven University, which includes 130 pediatric aquatic publications at different levels of evidence), still various topics have not been included. In future we would like to see e.g.:

- a fair representation of children with GMFCS V, co-morbidities, non-classical CP or diseases of other organ systems
- patient reported outcome measures
- description of environmental facilitators and barriers
- research on upper extremity function
- adults with CP, babies
- measures of self-efficacy, care giver strain, quality of life
- treatment intensities that effect change in described objectives

Conclusion

Pediatric aquatic therapy has a history that roughly started with the Halliwick Swimming Method, which developed in Water Specific Therapy. Therapeutic effects have been reported with relevant clinical effects, both in swimming related publications as in those that are physical therapy related. The amount of publications covers a wide range of topics, but also important items are still missing.

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Member Spotlight:

The beginnings of IOPTP: a tribute to Barbara Connolly



Barbara Connolly received her BS degree in physical therapy from the University of Florida; a DPT degree from the University of Tennessee; a M.Ed. degree in special education with a minor in speech pathology and an EdD in curriculum and instruction from the University of Memphis. She is a Professor Emeritus at the University of Tennessee Health Sciences Center where she served as Chair of the Physical Therapy Department for 24 years and Interim Dean of the College of Allied Health Sciences for 2 years.

She is currently the President of the Foundation for Physical Therapy, a foundation dedicated to funding physical therapy research. She served as President of the International Organization of Physical Therapists in Pediatrics, a subgroup of the World Confederation of Physical Therapy from its inception in 2007 until 2015. She also has served on the APTA Board of Directors, on the APTA Pediatric Specialty Council and the American Board of Physical Therapy Specialists. She was President of the Section on Pediatrics of the APTA from 2002 - 2006. She received the Bud DeHaven Leadership Award, the Research Award and the Jeanne Fischer Distinguished Mentorship Award from the Section on Pediatrics. She is a recipient of the Golden Pen Award from the American Physical Therapy Association for her publications. In 2002, she received one of the highest honors from the APTA when she was named a Catherine Worthingham Fellow. In 2014, she received the Marilyn Moffat Leadership Award and in 2015, she received a Lucy Blair Service

Award. She is the first author of more than 32 publications in peer reviewed journals, has written 21 book chapters and has coauthored or edited seven textbooks for physical therapists. She is certified in NDT and in SI. She continues to provide professional development courses both nationally and internationally.

In 2006, Barbara Connolly, outgoing APTA Section on Pediatrics President, proposed to the Section on Pediatrics (SOP) that they support the effort to establish a WCPT subgroup for pediatrics. The SOP approved a motion to support the attendance of Barbara Connolly and new SOP President, Sheree York, for the 2007 WCPT meeting to put forth the request for the formation of the International Organisation of Physical Therapists in Paediatrics. The rest is history! The IOPTP was accepted by the WCPT and the first business meeting and networking sessions were held. The first officers were elected and member organizations were encouraged to join. IOPTP started with Australia, Canada, Denmark, Hong Kong, Ireland, Italy, Netherlands, New Zealand, Norway, South Africa, Sweden and US. Switzerland and Taiwan joined in 2008, Germany in 2011, and our newest members in 2015: Austria, Ethiopia, Finland, Japan, Korea, Nigeria, Portugal, and Turkey. The officers developed the constitution, bylaws, and strategic plan. In addition to the meetings with WCPT in 2007, 2011 and 2015, IOPTP collaborated with the SoPAC conference to hold mid-term meetings in 2009 and 2011.

It was Barbara's vision, determination, passion, and organization that got the IOPTP up and running. She is truly a great leader who has charted a course for our organization and her legacy will live on for years to come. We salute Barbara Connolly for her foresight, leadership and strong organizational and networking skills to lead the IOPTP to where we are today. And in the words of our Research Chair, "Barbara is a real leader in our profession, so let's bless her and keep her handy, even though she has stepped down as Chair of the Executive Committee."

Do you know a pediatric physical therapist who is doing amazing work that you would like to recognize? We will be highlighting the accomplishments of our members every newsletter. Please contact:

Erin Wentzell at: ewentzell@gmail.com



WCPT News...



APTA Section on Pediatrics Annual Conference (SoPAC)

Registration is now open for the American Physical Therapy Association's Section on Pediatrics Annual Conference (SoPAC). SoPAC 2015 will be held November 6-8, 2015, at the Wyndham Grand Downtown, Pittsburgh, PA, United States. Preconference courses are scheduled for November 4-5. This is a great chance to network with pediatric therapist colleagues from around the world. More than 60 educational tracks in 8 pediatric specialty areas (Neonatal, Early Intervention, School-based, Hospital-based, Pediatric Sports and Fitness, Adolescents and Adults with Developmental Disabilities, General Practice, and Academia) allow you to customize your educational experience. Focus on any single track or jump from one to another to meet your individual needs. To see the full schedule and to register or exhibit, visit www.sopac.us.

We are seeking submissions for the next newsletter. The next newsletter will focus on health, wellness and healthy lifestyles.

Submissions are due by December 15, 2015.

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