Water Specific Therapy in Pediatrics

5 days international course by the Swiss Association IATF

Cairo - December 2024

Instructor: Johan Lambeck

- Director of Aquatic Rehabilitation Consultants in The Netherlands
- Senior Lecturer in – and co-founder of –the Association IATF (International Aquatic Therapy Faculty) in Valens, Switzerland

More about tutor Biography:

Johan Lambeck provides skillful Aquatic Therapy, including a proper clinical reasoning process that finally ends in an intervention strategy with adequate tactics. Tactics include the specific concepts that are used in the pool. His pool practice focuses on an evidence based patient treatment. This is what he also offers his students in courses worldwide. As a knowledge broker, Johan has an established track record in teaching up-to-date information, being involved intensively in international networks, publications and scientifically chairing the ICEBAT conferences.. Courses include case related contents that provide students with a comprehensive picture of current research, supporting decision making, clinical reasoning, problem-solving and goal-setting in aquatic therapy. The basis of each course is “learning-by-reasoning-and-doing”

Johan Lambeck is Director of Aquatic Rehabilitation Consultants in The Netherlands and Senior Lecturer in – and co-founder of –the Association IATF (International Aquatic Therapy Faculty) in Valens, Switzerland and coordinated its world-famous Advanced Studies in Aquatic Therapy (CAS) in the Kliniken Valens (to be continued in Landeyeux, Switzerland).

Johan is also Honorary Professor at the Zhongshan Vocational College, Nanjing, China and visiting lecturer at the University of Castilla-La Mancha, Toledo, Spain and holds various freelance affiliations at e.g. Associations of Physical Therapy worldwide.

From 1979 – 1997 he was in charge of aquatic therapy at the Sint Maartenskliniek in Nijmegen, Netherlands (specialized in diseases of the neuro-musculoskeletal system of both adults and children). From 2006 till 2016 he was research associate at the Faculty of Kinesiology and Rehabilitation Sciences, Leuven University, Belgium and co-responsible for the Erasmus EU project “Aquaevidence / Aquaoutcome”.

He (co-)authored 6 books, 3 web-based books and over 50 published articles on aquatic therapy, mostly in peer reviewed journals: RG factor 25,28; 765 citations, h-index 14.

He was named the Aquatic Therapy Professional in the United States by ATRI in 1998, in 2020 he received the Award “Excellence in Aquatic Physical Therapy”, issued by the Academy of Aquatic Physical Therapy-APTA, USA. He is a long time editorial board member of the Journal of Aquatic Physical Therapy (USA)..

Per 2005 he is Cochrane member and chaired the Health Benefits group of the Drafting Committee on the WHO “Guidelines for Safe recreational water environments: swimming pools and similar environments” (2012-2014). From 2010 - 2019 he was primary contact person for the Aquatic Physical Therapy Network affiliated to the World Confederation Physical Therapy (WCPT). In 2016 he was appointed Honorary Advisor China Rehabilitation Research Center, Beijing.

Since 1983 he has taught almost 1000 aquatic therapy seminars in 52 countries around the world. Johan has been/is scientific (co)chair of the ICEBAT conferences and recent webinar series.

See also:
http://www.linkedin.com/pub/johan-lambeck/25/9/43a
http://www.halliwick.net/en/testimonials

Course description and learning outcomes:

Water Specific Therapy (WST), is a therapy designed to address a wide range of neuromusculoskeletal rehabilitation functional goals, ranging from muscle strengthening and pain reduction to enhancing postural control, core stability, agility, and fall prevention. The WST principles have their origin in the Halliwick 10 point-program swimming method as foundational elements for its exercises. One of its distinguishing features is the large transfer of the center of gravity in a slow and controlled way using subtle muscle contractions that are challenging to achieve on land.

WST principles use the mechanical properties of water, including turbulence, waves of transmission, and metacentric effects, which affect changes in gravity and buoyancy torques. These properties facilitate the creation of exercises that target specific rehabilitation objectives.

A notable aspect of WST is its applicability across diverse age groups, from pediatrics to geriatrics. Developed in Switzerland in the early 1970s by a team of physiotherapists collaborating with James McMillan, WST represents an evolution of the Halliwick method towards a more comprehensive therapeutic approach with explicit goal setting of land based functioning. This evolution continues to incorporate contemporary healthcare issues, such as addressing executive function, muscle power training, and modifying

neuroinflammation.
. By integrating principles of motor learning with aquatic therapy, WST offers a holistic approach to rehabilitation that bridges the gap between aquatic and land-based interventions.

WST offers significant therapeutic benefits for pediatric clients with many neuromusculoskeletal conditions including cerebral palsy (CP). Aquatic therapy is a widely utilized non-pharmaceutical treatment option in the management of pediatric impairments. It offers several advantages over traditional land-based therapies due to the unique properties of the water, by providing a safe, fun and mechanical low-impact environment for exercise, allowing children to engage in activities that may be difficult or impossible on land and thus also offering a high physiological impact.

WST, an activity-based approach for aquatic exercises, focuses on restoring postural control, reducing muscle stiffness, and facilitating movements using active techniques at all levels of RPE and all percentages of the 1RM. Exercises are designed to progress from learning stable postures to mastering balance in unstable positions while traveling through water.

The evidence supports the effectiveness of WST. Controlled studies have been conducted to evaluate the effectiveness of aquatic therapy versus conventional land-based therapy on gross motor function in children. These studies aim to provide empirical evidence supporting the efficacy of aquatic therapy as a necessary adjunct to land based interventions for children with CP.

In conclusion, WST offers a valuable therapeutic approach for pediatric clients with cerebral palsy and other neuromuscular impairments, addressing motor deficits, improving functional abilities, and enhancing quality of life.

Main Learning objectives:

Upon completion of this course, participants will be able to
- demonstrate various handling techniques of intervention tactics, e.g. WST-Halliwick
- desribe the evidence for pediatric aquatic therapy
- follow a clinical reasing procedure for a child with e.g.CP
- construct exercises for various domains of hand-arm function
- apply gamification principles in classical Halliwick games
- work with the WOTA rating scale

This course is certified by **the Swiss Association IATF**

and organized by **Academy of International Medical Seminars AIMS**

Further information can be found at the websites:
www.halliwicktherapy.org

Testimonials can be read at:
https://www.halliwick.net/en/testimonials
https://www.halliwicktherapy.org/en/valens-course-2019/32-engels/testimonials-en-gb-1

For more information, venue, fees and registration please contact:

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