

2504 – Developmental, Brain and SCI Disorders

Intermediate / Pool Workshop

Sanibel, FL / Tuesday, June 23, 2020 – 7:45-11:00 am – 3.0 credit hours

(Classroom: 7:45-9:15 am / Indoor Pool: 9:30-11:00 am)

Faculty: Lisa Warwick-Arndt, PTA; Courtney Porter, PT, DPT

COURSE DESCRIPTION: Learn about the use of aquatic therapy to achieve functional goals for children and adults diagnosed with disabilities and disorders of the brain, spinal cord and musculoskeletal system, focusing on spinal cord injury. There will be an introduction to spinal cord injury and related diagnoses and the indications and contraindications commonly associated with this population. Techniques will be demonstrated and participants will be able to practice those techniques and apply them in their practice. The purpose will be to expand the knowledge base of practitioners who work with people with neurological insult.

COURSE OBJECTIVES:

- 1) Define spinal cord injury (SCI) and related diagnoses and list typical effects and complications associated with neurological insult.
- 2) Describe the properties and benefits of aquatic therapy and how they can be applied to those with neurological impairments.
- 3) Identify indications, contraindications, and precautions for aquatics with those suffering from disabilities and disorders of the brain, spinal cord and musculoskeletal system. Diagnoses, including but not limited to, spinal cord injuries (traditional paraplegia, tetraplegia, acute flaccid myelitis, and multiple sclerosis), cerebral palsy, muscular dystrophy, traumatic brain injury, spina bifida, neurogenetic developmental delay, osteogenesis imperfect, and brachial plexus injuries.
- 4) Explain various treatment options for those with neurological impairments in an aquatic environment including:
 - Tone management
 - Stretching
 - Strengthening
 - Balance training
 - Swimming
 - Functional mobility training
 - Gait training
 - Aquatic locomotor training
- 5) Review current evidence-based practice for aquatics in the neurological population.
- 6) Discuss the gaps in recent literature regarding aquatics with those neurologically impaired and brainstorm ways in which one can add to the literature.

FACULTY: Lisa Warwick-Arndt, BS, PTA, has been a physical therapist assistant with the Kennedy Krieger Institute since 2009. She received her Physical Therapist Assistant, A.A.S. degree from Anne Arundel Community College in 2009, Bachelors in Public Health from American Public University in 2018, and is pursuing a master's degree in Public Health from American Public University. She received a pediatric certificate from the Aquatic Therapy & Rehab Institute in 2012. Clinical interests include gait mechanics/orthotics, and aquatics. She has had a poster accepted at the Academy of Spinal Cord Injury Professionals, 2013 on functional mobility and aquatics; and a platform presentation at the Academy of Pediatric Physical Therapy conference, 2019.

Courtney Porter, PT, DPT, is a physical therapist at Kennedy Krieger Institute in Baltimore, MD, working with adult and pediatric patients with neuromuscular disorders. She is experienced as a land and aquatic therapist for children and adults with neuromuscular diagnoses. Her clinical interests include functional electrical stimulation, casting and splinting, pediatrics and aquatic therapy.