

Functional Strengthening and Fitness Interventions for Children with Developmental Disabilities

Maria Fragala-Pinkham PT, DPT, MS

Maggie O'Neil PT, PhD, MPH



Faculty

Maria Fragala-Pinkham PT, DPT, MS is a physical therapist and clinical researcher at Franciscan Hospital for Children in Boston. Renowned for her clinical and teaching excellence, Maria conducts workshops throughout the United States. She has developed community-based adapted sports and fitness programs for children including an adapted ice skating program and an aquatic exercise and swimming program. She is one of the senior authors of the PEDI-CAT, a functional outcome measure for children with disabilities. *Disclosure: Financial: Maria Fragala-Pinkham receives an honorarium from Education Resources and royalties from CreCare. Non-Financial: She has a non financial relationship with CreCare for volunteer work.*

Maggie O'Neil PT, PhD, MPH is a professor at Columbia University, Program in PT. She has conducted a number of funded clinical research studies in physical activity and fitness for children and youth with cerebral palsy and other disabilities and chronic conditions (obesity). She works closely with exercise scientists to identify methods objective measures of physical activity in pediatric disability. Maggie consults with pediatric physical therapists to design, implement and measure outcomes for physical activity and fitness interventions. *Disclosure: Financial: Maggie O'Neil receives an honorarium from Education Resources. Non-Financial: She received no non-financial relationships to disclose.*

About this Course

Designing effective intervention programs to improve strength, endurance and function in school-aged children 5-21 years with disabilities can be enormously challenging. This course will help clinicians set realistic goals, prioritize treatment and implement successful programs for children with developmental disabilities such as cerebral palsy, genetic conditions, autism, developmental coordination disorder, and spina bifida. An evidence-based approach to outcome measures and intervention design will be discussed including frequency, intensity, duration and types of interventions to improve strength and function. Participants will observe and practice some of these measurement and intervention techniques during short demonstration sessions and case studies. Specific intervention activities will be discussed such as strategies to enhance strength, flexibility, endurance and function as well as progressive resistive exercises using weights and resistance bands, therapeutic exercise using moveable surfaces, treadmill training, aquatic exercise, structured play and yoga. Evidence on the effectiveness of existing community-based programs and resources to improve physical activity, strength and endurance in children will be discussed.

Objectives

- 1 Incorporate evidence-based strategies for strengthening and endurance training into treatment programs to maximize function in children with disabilities
- 2 Integrate evidence from applied clinical and community-based strength and endurance training programs to improve and sustain functional outcomes in children with disabilities
- 3 Identify and use systematic and objective measures to document changes in function, strength and endurance at the body structure (impairment), activity (limitation) and participation (disability) levels
- 4 Identify clinical and community-based programs that provide evidence to support function, strength and endurance in children with disabilities

Help your patients achieve better outcomes.