

Aquatics Approaches for Children with Special Needs

Invited Speaker

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ABSTRACT

Children with special needs enjoy and success the aquatic-based exercise and play skills in a pool as an alternative to land-based exercise in a gym. The purpose of this presentation is to deliver basic practical strategies and tips for developing aquatic skills, adjustment to water and rotations, which are phases of the Halliwick Method, for children with mental challenges. Pro-

gram Objectives are; (a) to explain basic principles of teaching approaches in aquatics, (b) to practice some aquatic drills (from Halliwick Method), and (c) to deliver tips for applying aquatic drills in children with special needs. In addition, some play skills will be practiced as one on one training during a group session in swimming pool.

Last over three decades, the importance of the physical fitness and health has increased for children. The growing attention also has reflected on children with special needs owing to their requirements more than peers. Limited mental development, restriction for participation of physical activity, lack of adapted physical education program and special sport organizations could be reasons for the necessity of the children. In addition, shortage of the sufficient specialists such as physical therapist and adapted physical education teacher is likely being a limitation for engaging the adapted program. All these factors restrain children with special needs for participating with their peers in community-based physical activity and sport, and set them at risk for developing secondary health conditions.

It lacks of proper guidance, monitoring and non-individual exercise prescriptions are risks for several musculoskeletal injuries due to the muscle weakness, poor motor coordination and insufficient joint stability. Low-impacted adapted physical activity could maintain the program, which provides an opportunity to enhance cardiorespiratory endurance and positive learning experience for the children with special needs.

Aquatic therapy is stated as useful a form of low-impact exercise in comparison land-based activity. Aquatic therapy supplies different sensory stimuli through water buoyancy, density, temperature, viscosity, resistance and vestibular input. Various studies recommended that water enable

to facilitate active movement, trunk stabilization, strengthening, and functional activity. In addition, psychosocial benefits such as self-image, sense of accomplishment, orientation could be improved with the aquatic program. However, systematic measurements and standardized aquatic programs should be designed to reach these conclusions. While conducting an aquatic program for children with mental challenges, autism, Down syndrome, another syndromes diagnosis, some individual features for them have to adopt measures to perform motor drills and benefit from the aquatic intervention. Otherwise, these children cannot display correct behavior during probe session, and the target movements aren't observed during maintenance, generalization and follow-up periods of the learning process. In addition, motivation of these children to accomplish the aquatic movement patterns is another essential issue.

Mostly, incentive strategies, which are stimulus to perform a target aquatic drill by the children, have to plan into an aquatic program, so the aquatic drill can be repeated in accordance with the aquatic exercise prescription. Before starting an aquatic intervention program, researcher or specialist should establish prerequisite skills in aquatic environment for children with special needs to inclusion an aquatic program. The workshop focuses on several strategies and approaches for the above-mentioned issues to carry out smoothly an aquatic program for children with special needs.

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