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## A4: Empowering Ability and Function: Power Mobility Training for Children with Multiple Severe Disabilities

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### Learning objectives:

Upon completion of this session, the participant will be able to:

1. Discuss 3 potential benefits of using power mobility training interventions with children and adolescents who have multiple, severe disabilities.
2. Describe 5 steps to creating power mobility training programs to meet the individual needs of children and adolescents who have multiple, severe disabilities.
3. Discuss 3 means by which to evaluate outcomes and expectations for the use of power mobility interventions in this unique population.
4. Discuss the role of an interprofessional team in providing power mobility options and use for children and adolescents who have multiple, severe disabilities.

### Session description:

Children with severe motor, cognitive, and communication deficits are often limited in their ability to use self-initiated movement to explore and learn from the world around them. Such children are frequently dismissed as “too involved” or “too low functioning” to use power mobility. This session will provide details related to the interventions used in our power mobility training program for individuals who have multiple, severe disabilities (ages 9 months to 26 years). Potential benefits of power mobility training in this population will be examined and explored. Various intervention techniques focused on creating an engaging environment customized to target the emergence of basic power mobility skills through environmental exploration and play will be presented and discussed. Case studies and examples from our program will be used to illustrate key concepts. Use of a custom-made attendant control unit to “share” control of the power mobility device without having to stop or interrupt the child’s driving

will be discussed as a fundamental aspect of our training methods. A standardized process to individualize these training methods for research purposes will also be presented. The role of an interprofessional team in providing power mobility options and use for children who have multiple, severe disabilities will be explored. Consideration of outcomes and expectations for the use of power mobility interventions in this unique population will be considered and reviewed.

### Content references:

1. Kenyon LK, Farris J, Brockway K, Hannum N, Proctor K. Promoting self-exploration and function through an individualized power mobility training program. *Pediatr Phys Ther.* 2015;27(2):200-206.
2. Kenyon LK, Farris JP, Gallagher C, Hammond L, Webster LM, Aldrich NJ. Power mobility training for young children with multiple, severe impairments: a case series. *Phys Occup Ther Pediatr.* 2017;37:19-34.
3. Livingstone R, Paleg G. Practice considerations for the introduction and use of power mobility for children. *Dev Med Child Neurol.* 2014;56(3):210-221.
4. Nilsson L, Eklund M, Nyberg P, Thulesius H. Driving to learn in a powered wheelchair: the process of learning joystick use in people with profound cognitive disabilities. *Am J Occup Ther.* 2011; 65(6), 652–660.
5. Durkin J. Discovering powered mobility skills with children: ‘Responsive partners’ in learning. *Int J Ther Rehabil.* 2009;16:331–341.