

TRAINING IN POWERED WHEELCHAIR, BENEFITS FOR INDIVIDUALS AT AN EARLY DEVELOPMENTAL LEVEL

(Abstract 543)

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Severely disabled individuals at an early developmental level normally don't get access to training self-directed mobility in a powered wheelchair. Earlier and ongoing studies of children and adults with severe multiple disabilities has shown there are benefits from training even if the ability independent goal-directed mobility could not be acquired. The individuals' alertness rose, their understanding of simple cause-and-effect relationships were developed, and they began to use their hands in explorative behavior with objects and environment. Research with typically developed infants can be used for comparison and understanding of the process of acquiring independent mobility with severely disabled individuals at an early developmental level.

Method. Video-recordings from about 200 training sessions in powered wheelchair with 36 severely disabled individuals are compared with sessions whereat typically developed infants in age from three to twelve months have a try in powered wheelchair. A total of 40 trials with 17 typically developed infants has been recorded. Analysis intend to reveal how early the process of developing independent mobility could be recognized both with individuals with severe disability and infants; if stages in the process could be found; and in that case at what developmental age.

The analysis is ongoing but so far interpreted results indicates that both groups show similarity's in developing the ability to operate a powered wheelchair and that the process starts at an early developmental level. All the typical infants did in some way acted exploring during trials. The only hindrance for testing infants younger than 3 months was their lack of head-control when seated. The most interesting findings according to the aim of the analysis showed in the age-group 4 to 8 months. In this group infants manipulated, explored, found out the cause-and-effect relationship between joy-stick and locomotion, experimented with acceleration-deceleration and steering. These results might form a new frame of reference on what can be expected from infants and persons functioning at an early developmental level. This leads in turn to the important discussion: How can early intervention with a powered wheel-chair give benefit for individuals with severe multiple disabilities. Results will be ready for presentation at the time for the congress.

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