Therapeutic powered mobility "summer camp" for children with cerebral palsy (CP) and other complex disabilities

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How can we teach children with severe CP * independent mobility?
- Power Mobility (PM) helps children with locomotor impairments develop and improves their quality of life
- Many people with sensory, motor or cognitive impairments who want PM do not receive it
- Children with brain involvement such as CP, and fine motor disabilities (MACS 4-5) have a harder time learning PM
- Today's method of teaching children in school is not effective enough due to dosing issues
- The children need to learn their 3R's, communication skills, hydrotherapy,…. too. When is there time?

Therapeutic day camps:
- Immersion helps learn a new skill
- Fun, social group setting
- Not on the expense of other important objectives
- Proven effective in many populations including CP hemiplegia

Protocol:
- Present study: group of 5 for research + 2 others in group
- Ages 12-15
- 8:00-15:00, 5 days a week for 3 weeks
- used power chair for all time in camp
- Two x 1 hour daily group activities to encourage PM:
  - Obstacles course or reach the target
  - Social games such as treasure hunts “sardines”, colour tag, red light/green light…
- Individual learning time periodically

Results:
Children improve PM skills
- 1/5 reach independent mobility (had highest starting point)
- 1/5 reached level of supervision (help less than 10% time)
- 3/5 can reach target with constant verbal cueing but only part of time

Outcome measure: PMP- Power Mobility Program

Outcome measure: ALP- Assessment of Learning Power mobility

Pros | Cons
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Fun atmosphere | Hard to concentrate
Social learning | Enjoyed crashing
Significant improvements | Most didn’t achieve independence
Opportunity to see skills over the day | Difference between test and real-time
Practical solution | High staff ratio

Surprises:
- Difference between when “tested” or videoed and most of time
- Influence of significant other (parent or teacher) on driving skills
- Questions: context effect on learning. Optimal dosing, fatigue, attention, effects of music…

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Please contact me to share your thoughts and questions or receive a pdf of the poster: lori66@gmail.com

* GMFCS 4-5 (Gross Motor Function Classification System)
MACS 4-5 (Manual Ability Classification System)
CFCS 4-5 (Communication Function Classification System)