What was this study about?
- Maximizing participation is a main goal of interventions for children and youth with cerebral palsy (CP).
- Intensity of practice is an important factor in motor learning, and activity-based interventions can enhance motor skills.
- This project created a partnership between therapeutic recreation (TR) to increase engagement, enjoyment, and carry-over of skills for clients into the community setting.

Aim: Research the use of the Liberi exergame bikes as part of therapy as well as to develop an objective clinical tool to measure advanced gross motor skills in this population.

What did we do?
- Developed and ran a full day 2-week intensive gross motor summer camp for 10 youth with CP (GMFCS II/III) to: a) improve motor skills and fitness, and b) increase enjoyment, confidence and participation in recreational activities.
- Camp program:
  - Gross motor exercises and strengthening in circuit training fashion, leisure education, and adapted sport skill development.
  - Liberi exergame system added as daily cardiovascular exercise.
  - Community outings and guest coaches were integrated into the program.
  - PTs and TRs worked with campers to set individual gross motor and physical recreation goals.
- Assessments: Standardized clinical measurement tools were used to evaluate campers’ gross motor function, cardiovascular fitness, strength, confidence and participation in recreational activities before and after the camp, and whether any improvements were maintained 6-months after the camp.

What did we learn?
- Developed and ran a full day 2-week intensive gross motor summer camp for 10 youth with CP (GMFCS II/III) to: a) improve motor skills and fitness, and b) increase enjoyment, confidence and participation in recreational activities.
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What we did was:
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Next Steps:
- We are planning to run SportFIT and Recreation Camp again in July 2016 with 8-14 year olds.
- We will be implementing our lessons learned within the newest version of the Liberi Exergame to facilitate cardiovascular exercise and fun group play for people of all abilities.
- Additional testing of children and youth who use gait aids is required to confirm the final wording of the Challenge-III items and response sets.

Testing of the rater reliability will be done (separate funding will be sought) before it is rolled out for clinical use.

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- Dr. Nicholas Graham’s EQUIS Lab at Queen’s University as Liberi Exergame collaborators.
- CP Discovery and SPARK Labs.

To learn more about the Liberi Exergame, please contact Lauren Switzer at lswitzer@hollandbloorview.ca.

To learn more about the SportFIT & Recreation Camp & Challenge-III, please contact: Blythe Datziel at bdatziel@hollandbloorview.ca.

Intensive gross motor camp for youth with cerebral palsy (SportFIT and Recreation)