

Sports and recreational choices for non-ambulant disabled children

Dawn Pickering, Senior Lecturer/ Staff PhD candidate,

School of Healthcare Sciences

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Aim of talk



- To share what recreational opportunities there are for disabled children based upon my PhD, where I have explored this with 9-16 year old children and young people with cerebral palsy and their families.
- To explore how you might adapt activities you are involved in or consider volunteering.



What do you enjoy doing in your leisure time?

- Sports
- Music
- Arts
- Drama



PhD study – 'VOCAL'

 Voices of children and young people with cerebral palsy about their participation in recreational activities- walking and talking difficulties.

Background: Cerebral Palsy



- Cerebral Palsy- non progressive neurological condition affecting motor and sensory control
- Gross Motor Function Classification System (GMFCS)- 5 levels of ability
- Rosenbaum and Gorter (2015) have proposed 6 'F' attributes for rehabilitation:
- Fitness, Family, Friendships, Function, <u>Fun</u> and the Future)
- Seeking to explore their views, experiences and choices about meaningful participation in recreational activities- it is known they have less choices
- Little known yet about their emotional wellbeing.

GMFCS

GMFCS E & R Descriptors and Illustrations for Children between their 6th and 12th birthday





GMFCS Level I

Children walk at home, school, outdoors and in the community. They can climb stairs without the use of a railing. Children perform gross motor skills such as running and jumping, but speed, balance and coordination are limited

GMFCS Level II

Children walk in most settings and climb stairs holding onto a railing. They may experience difficulty walking long distances and balancing on uneven terrain, inclines, in crowded areas or confined spaces. Children may walk with physical assistance, a handheld mobility device or used wheeled mobility over long distances. Children have only minimal ability to perform gross motor skills such as running and jumping.

GMFCS Level III

Children walk using a hand-held mobility device in most indoor settings. They may climb stairs holding onto a railing with supervision or assistance. Children use wheeled mobility when traveling long distances and may self-propel for shorter distances.

GMFCS Level IV

Children use methods of mobility that require physical assistance or powered mobility in most settings. They may walk for short distances at home with physical assistance or use powered mobility or a body support walker when positioned. At school, outdoors and in the community children are transported in a manual wheelchair or use powered mobility.

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GMFCS Level V

Children are transported in a manual wheelchair in all settings. Children are limited in their ability to maintain antigravity head and trunk postures and control leg and arm movements.



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Palisano et al, 1997; Reid et al, 2011



Justification of inclusion criteria

• Levels III-V of the Gross Motor Function Classification System (GMFCS)- natural decline

• Children and young people (CYP) with cerebral palsy aged 9-16 years



Figure 1: Predicted Gross Motor Function Measure (GMFM-66) motor scores as a function of age by Gross Motor Function Classification level. *GMFCS levels with significant average peak and decline. Dashed lines illustrate age and score at peak GMFM-66.

Adapted cycling





https://www.youtube.com/watch?v=Zd5WTK6Gjil



Pedal Power, Cardiff



Children's book





Recumbent bike



<u>http://www.londonrecumbents.</u>
<u>co.uk/</u>



Swimming



<u>https://www.disabilitysportwale</u> <u>s.com/cardiff/</u>





Adapted Surfing



• <u>https://www.youtube.com/watch?v=il9wB7siD-Y</u>



Adapted Trampolining



<u>https://www.disabilitysportwales.com/clubs/rebounders-trampolining-club/</u>

RaceRunning: a cerebral palsy sport





• <u>http://www.racerunning.org/FrontPage/?id=15</u>

Race Running







Katie (pseudonym) aged 21 years Pilot Interview 2015



• 'I was introduced to a cerebral palsy specific sport called RaceRunning...it was just so freeing....it was just amazing!..... My activities were very short and staggered, I would never really raise my heart rate or get into an easy motor pattern. Gravity and my CP is what made my walking pattern so disjointed- the need to stay upright against gravity with muscles which cocontract at the faintest hint that I might fall. So at first the RaceRunner gave me the experience of what walking must be like without cerebral palsy-using motor patterns which come naturally and easily.....

Katie



....So it's so beautiful on the track, fresh air, you get to obviously run on the RaceRunnerand you can switch off that part of your brain. I think motor function just uses more - because we've got less maybe - we've got damaged brains so the bits that are alive are working 100 fold more than they're meant to, it might be the fact that somehow they can switch off and you can start thinking. **What I can't do is think coherently when I walk, but I can when I Race Run...**

Carry over into other activities



...it created new abilities within me not necessarily physical...I had more self confidence and more ability to deal with stressful moments in my life...I actually applied for the student president of the faculty...I was so much more happy within myself...

Race Running is safe, you do need padded shorts and a padded saddle....you don't have to concentrate you just see the world go by.... it enabled me to stop hiding what I can't do and say look at what I can do!.....



Touch Trust



http://www.touchtrust.co.uk/

Adapted Skiing





• <u>https://www.youtube.com/watch?v=Z0ePliLUoC8</u>

Adapted sailing





<u>http://ryasailability.tv/videos/boats/rs-venture-keel/</u>

Horse riding



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<u>http://www.rdasouthwales.org.uk/</u>

Arts and culture



- Relaxed orchestral performance
- Accessible cinema showings
- ? Support to do activities e.g. pottery, drawing, gluing.....
- Playgrounds

Play schemes



 <u>https://www.cardiff.gov.uk/ENG/</u> <u>resident/Leisure-parks-and-</u> <u>culture/Childrens-Play/Play-</u> <u>projects/Disability-play-</u> <u>project/Pages/Disability-play-</u> <u>project.aspx</u>



Environmental barriers







Changing places toilets





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Mobile hoist





Transport – Jumbulance





Accessible playgrounds







Beach Access











Contact details

- Dawn Pickering: Staff PhD Candidate, School of Healthcare Sciences, Cardiff University
- Contact <u>pickeringdm@cf.ac.uk</u>
- Tel: 02920 687741
- Twitter: @DawnMPickering
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