

# Splashing through the 'F-words': Exploring the aquatic environment for disabled children

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### Introduction

- All children have the potential to thrive in the aquatic environment.
- By learning basic swim and water safety skills, children are introduced to a lifelong activity (i.e., the future) that they can participate in with friends and family.
- Including alternative therapies, such as aquatic programs, in children's treatment plans, provides one strategy for fostering the 'F-words' within children's health care.

### Purpose

The purpose of this study was to explore the influence of a structured swim program on the lives of children with autism spectrum disorders (ASD) and communication delays.

### Methods

- All participants had various roles and degrees of involvement in the study.
- Each child participated in a 1-hour, structured swim class, once a week for 10-weeks.
- A certified swim instructor was responsible for teaching each session.

Participants	#	Data Collected
Teachers	2	Semi-structured interview
Volunteers	13	Weekly progress forms Weekly journals Open-ended questionnaire
Parents	13	Background questionnaire Semi-structured interview
Instructor/ Researcher	1	Weekly journals Field notes

### Findings

- Parents, teachers, and volunteers agreed that all children benefited from participating in the program.
- Given the distinct properties of the water, it is believed that swimming not only fosters physical activity (i.e., function and fitness) but also provides social (i.e., family and friends) and emotional benefits (i.e., fun) for disabled children across the lifespan (i.e., future).

#### **Function**

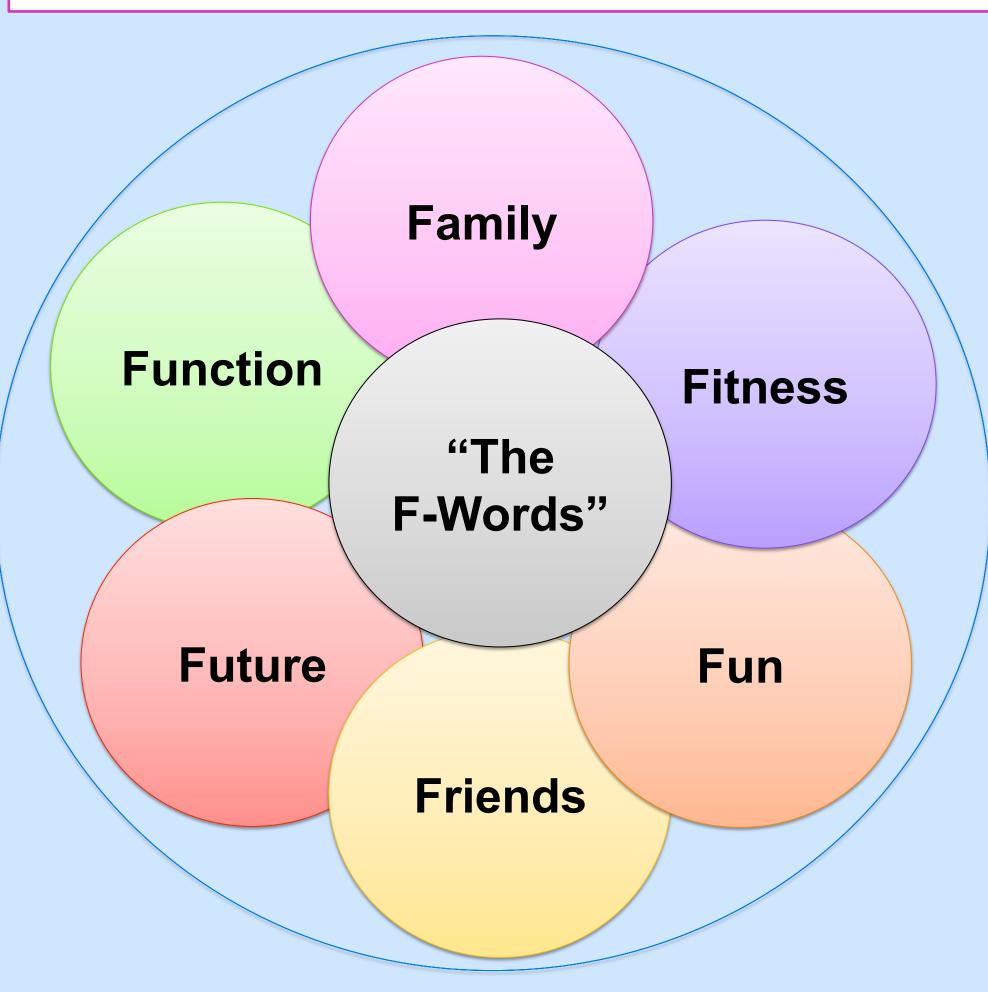
"The kids seemed so happy to swim. They enjoyed showing off their skills, which gave a sense of pride and they were happy to enjoy the different activities in the company of their peers and now friends. They also formed with us their swim buddies – full of trust and gratitude." ~Volunteer

#### **Future**

"I think swimming is a really excellent way for children that can be sedentary to get physical activity...The pool offers a lifelong form of physical activity that they can do...And that's pretty powerful to be able to provide them with a physical activity that they can pursue into adulthood." ~Teacher

### **Family**

"He is swimming once a week, he loves it and then we can do public swim, family swim. And he is always happy about swimming, he can't wait for swimming. We have had a lot of fun with him going swimming now that he is done these lessons." ~ Parent



#### Friends

"It was a great experience. The visible results of the children improving socially and physically over the ten weeks was incredible and it was great to form a bond with children and be able to share and live through

#### **Fitness**

"I think that was a combination of being in the water and then the physical activity because so many of these kids, I mean kids at this age are so strongly visual kinesthetic learners right, and the pool offers that need for that kinesthetic movement, in a way like you can't offer it anywhere else." ~ Teacher

#### Fun

"He is very excited about swimming. I know that in the mornings it is easier to get him out the door to school because it's swimming day. He's like "I get to go swimming today!" Because I see how natural [he] is in the water when he feels comfortable. He just loves being in there, he is a little fish." ~Parent

### Discussion

- To promote physical activity amongst disabled children, contextual factors (i.e., personal and environmental factors) must be considered simultaneously.<sup>2</sup>
- Swimming has been reported to be an enjoyable activity for disabled children.<sup>3,4</sup> If children are having fun, they are more likely to continue the activity into the **future**.
- Aquatic activities also provide a social environment where relationships can be fostered with family and friends.
- Lastly, the therapeutic features of the aquatic environment limit barriers and promote physical activity (i.e., function and fitness) for disabled children.
- Given the multiple potential benefits of aquatics for disabled children (i.e., the 'F-words'), it is important that the aquatic environment is included in children's treatment plans.

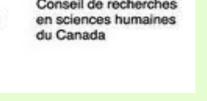
### Conclusion

 As physicians, therapists, and parents continue to search for effective interventions for disabled children, it is crucial that holistic services that focus on each of the 'F-words' are explored.

### Acknowledgements

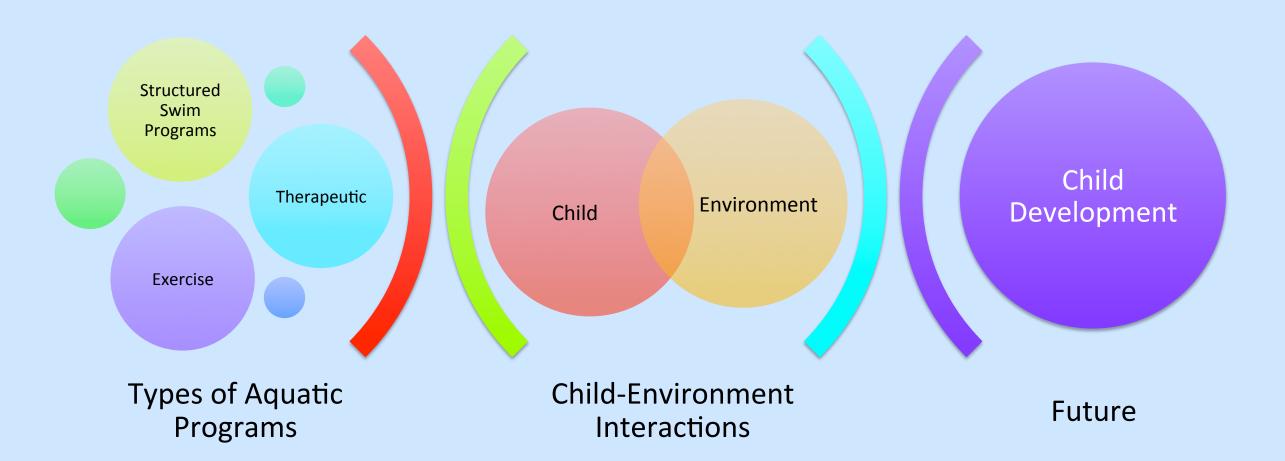
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their experiences in the water." ~ Volunteer

## The Ripple Effect: Implications



References: 1. Rosenbaum et al., 2011, Child: Care, Health and Development. 2. Shimmell et al., 2013, Physical & Occupational Therapy in Pediatrics. 3. Prupas et al., 2006, The Journal of Physical Education, Recreation, & Dance. 4. Brunton et al., 2010, Pediatric Physical Therapy.