

Blue Healer – Surfing Intervention: Move to Improve Program

Family surfing activity for children and adolescents with chronic conditions: Effects on health and wellbeing

Children and adolescents with chronic conditions have a 2-3 times greater risk of developing a mental health disorder than their healthy counterparts.

Surfing is a playful, ocean-based physical activity and there is good evidence to suggest that it has positive effects on the general physical and psychosocial wellbeing of participants, with a range of benefits as follows:

- increased physical fitness through low impact interval activity;
- promotes gross motor skill development;
- creates opportunities for mindfulness;
- supports a sense of belonging to a community (there are approximately 23 million surfers worldwide);
- builds resilience through facing fears, and
- is inclusive of all individuals – even people with physical disabilities can engage in surfing.

Pilot study outcomes and case studies

Researchers at Perth Children's Hospital recently completed a pilot study which involved the implementation of a surfing intervention for children with cystic fibrosis and their families. The study demonstrated positive trends in both emotional and physical health, and family relationships. Parent stress levels also decreased and parents reported that their children were happier, more relaxed and more confident.

"I loved how happy and confident my child was in this activity"

Parent of child with CF



Mary, a seven-year old who has cystic fibrosis and her dad participated in the pilot project. Her mum was injured at the time and unable to participate.

Dad said:

"It was really good to do this as a family, we all started at the same level, a good healthy and physical activity that helped Mary's condition (CF) and helped Mary to build resilience and manage her fears."

At the competition of the study the family continued with surfing.

Next steps: Expanding the research in size and scope

The research is extending the study by increasing participant numbers and evaluating the physical and mental health impacts on a range of chronic conditions. This includes children with:

- Type 1 Diabetes
- Juvenile Idiopathic Arthritis
- Oncology disease
- Post burns injury
- Cystic Fibrosis
- Cerebral Palsy

Based upon the pilot study findings we anticipate that participants in the family-based surfing intervention will experience improved psychological wellbeing and family relationships, as well as increased physical activity that will see to them continue with surfing once the study is complete.

This project has the potential to provide impactful results for the following reasons:

- participation is relatively low cost (\$2000 approx per family to participate);
- family members are included along with the child/adolescent with a chronic condition;
- a range of chronic illnesses are represented in the study;
- participation has the potential to improve physical and mental wellbeing of both the children/adolescents and their families (as shown in the pilot study);
- the learned skill makes the intervention sustainable for participants into the future, and
- the study will be the first of its kind in Western Australia.

Inclusion and Exclusion criteria

Participant inclusion criteria.

- Participants will include patients with Cystic Fibrosis, Juvenile Idiopathic Arthritis, Post Burn Injury, Cerebral Palsy, oncology disease, Type 1 Diabetes, aged 7-18 years and their family members. Caregivers and siblings of patients will be aged 7 years or older. A maximum of 5 family members, including the patient, will be allowed.
- Patients and family members who participate in the surfing intervention will need to have the ability to participate safely in ocean water (float or tread water or swim with or without support).

Participant exclusion criteria.

- The following will be excluded from participation:
- Individuals with pre-existing comorbidities that preclude participation in surfing.
- Individuals from the surfing intervention who are unable to participate safely in ocean water.
- Women who are pregnant (caregiver)
- Individuals with a significant intellectual disability.

In the long-term, we hope that the research will contribute to the evidence about physical activity programs such as surfing interventions to be offered as part of the standard care for children and their families at PCH, made available through NDIS, and considered part of the mental health care plan both in Western Australia and nationally.

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