# PHYSICAL RIDE-ON SAILING SIMULATORS AS A MEANS FOR PEOPLE WITH DISABILITIES TO LEARN TO SAIL ON WATER

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# **BACKGROUND AND AIMS**

Participation in sailing by people with disabilities is widely regarded as having positive outcomes on health, morale, self-esteem and reintegration into the community. Contemplating this unfamiliar activity remains a barrier for many who would benefit. Sailing is often regarded by those without experience as expensive, elitist and potentially dangerous. Real time physical sailing simulators have the potential to provide a safe means of learning to sail. A clinical trial using a Virtual Sailing a VSail Access simulator is testing the hypotheses, that sailing simulators can be used to teach people with spinal cord injuries with no prior experience of sailing to sail and that this will have demonstrable effects on morale, self esteem and reintegration into the community.

## METHOD

Twenty people with spinal cord injuries of more than 6 months standing are being recruited. Each participant undergoes initial cardiorespiratory and functional evaluations. A Quality of Life questionnaire (SCIQL23) is completed followed by 4-8 simulator sessions (1 hour). They then have 2 on-water sessions in a Hansa Liberty single person sailboat at Docklands, Melbourne. The 1<sup>st</sup> session is for familiarization, the second for formal evaluation of skills on all points of sailing followed by sailing round a triangular course. Skills are scored by 2 independent observers not involved in the simulator sessions. Cardiorespiratory, functional evaluations and QoL questionnaire are then repeated.

# RESULTS

Of 16 participants (C1 to L3) recruited so far 9 are sailing on-water (scores of 55-95/100). Three are due to go on water, 4 dropped out (illness or other activities). All enjoyed experience on water; preliminary analysis of QoL questionnaire indicates improvements in function, depression and global QoL.

# CONCLUSION

Sailing simulators are an effective means of getting people with spinal injuries sailing, with measureable clinically significant outcomes for their QoL.