

## **Impact of a Community Exercise Program Involving a Healthcare-Recreation Partnership in People with Neurological Conditions and their Caregivers**

**Saira Merali<sup>1</sup>, Jill Cameron<sup>1,2</sup>, Ruth Barclay<sup>1,3,4</sup>, Nancy Salbach<sup>1,4</sup>**

<sup>1</sup>Rehabilitation Sciences Institute, University of Toronto, <sup>2</sup>Department of Occupational Science and Occupational Therapy, University of Toronto, <sup>3</sup>Department of Physical Therapy, University of Manitoba, <sup>4</sup>Department of Physical Therapy, University of Toronto

---

### **Background**

Community exercise programs incorporating a healthcare-recreation partnership have emerged to increase access to safe and suitable exercise for people with balance and mobility limitations. In a healthcare-recreation partnership, healthcare providers (usually physical therapists), train and support fitness instructors, volunteers and program coordinators to deliver exercise programs in community centres run by recreation organizations. Group exercise programs involving task-oriented training provide opportunities to practice activities people do every day (e.g., sit-to-stand, walking, and stairs). These programs are particularly feasible to run in the community and they have been shown to improve balance and walking ability in people post-stroke.

### **What Did We Want To Learn In Our Study?**

In our study, we spoke with people with neurological conditions and their caregivers about their experience in a group, task-oriented community exercise program called Together in Movement and Exercise (TIME™). We discussed changes in their physical function (balance, mobility, activities of daily living function), participation in meaningful activities, caregiver assistance and caregiver health that may have resulted from their participation in TIME™. We also wanted to understand participants' and caregivers' preferences for the content and timing of education about community exercise programs involving a healthcare-recreation partnership.

### **Who Took Part In This Qualitative Study?**

We interviewed 13 people with a neurological condition, including 9 people with stroke and 4 people with multiple sclerosis, and 12 caregivers on completion of the TIME™ program. Eight of the 13 exercise participants had previously registered in the TIME™ program. Ten caregivers were a spouse and the remaining two caregivers were a child and a parent.

### **Summary of Findings**

TIME™ participants and caregivers agreed that TIME™ participants experienced improvements in core and leg strength, confidence, balance, walking, ability to use the stairs, transfers (in and out of a chair, bed, shower, car, and on and off the toilet), daily activities (e.g., dressing, bathing, feeding), and participation in social and leisure activities (e.g., going out to lunch with family or friends, going to play

golf, walking, going to a theatre). These improvements were described as connected. For example, increased strength led to improvements in balance, walking, transfers, and ability to use stairs and perform daily activities. TIME™ participants and caregivers felt that these improvements were reinforced through repeated registration in the TIME™ program.

Caregivers described feeling positive, happy, and optimistic as they saw what the TIME™ program did for the TIME™ participants. They felt more relaxed about what the TIME™ participant was able to do because of the improvements in their balance, walking, and ability to do daily activities. Transportation to the community centre was identified as a potential challenge.

TIME™ participants and some caregivers discussed how the assistance that caregivers needed to provide decreased as TIME™ participants improved their ability to perform everyday activities.

TIME™ participants and caregivers provided advice on ways to increase access to community exercise programs, such as the TIME™ program. They recommended that physical therapists and physicians discuss community exercise programs near the time of discharge and provide program information through brochures and websites. They discussed the importance of being motivated to exercise. They also discussed the important role of caregivers in looking for exercise programs and attending the programs with the participant. Caregivers also motivated TIME™ participants to do home exercises.

Some TIME™ participants were participating in other types of exercise classes while they did the TIME™ program. Therefore, it is possible that some of the improvements they described resulted from their participation in a combination of programs. TIME™ participants did provide examples, however, of how practicing specific movements in the TIME™ program led to improved ability to perform those movements at home and in the community.

### Future Directions

Findings from this study suggest that community task-oriented exercise programs designed to improve balance and mobility have potential to improve the health of not only exercise participants but also caregivers. Information on the type of potential health benefits can be used to educate people with neurological conditions and their caregivers, healthcare professionals, recreation providers, and policymakers about the role for community task-oriented exercise programs; and help plan what to measure when evaluating these programs. Larger studies are needed to provide strong evidence of the benefits of community task-oriented exercise programs for people with balance and mobility challenges.

### Acknowledgements

This study was conducted by **Saira Merali** in partial fulfilment of a Master's degree in Rehabilitation Science at the University of Toronto with funding from an Ontario Physiotherapy Association Kim Wolny Research Grant and a Heart and Stroke Foundation Canadian Partnership for Stroke Recovery Catalyst Grant. Nancy Salbach and Jill Cameron were supported by Canadian Institutes of Health Research New Investigator and Ontario Ministry of Research and Innovation Early Researcher Awards. Ruth Barclay was supported by a Manitoba Health Council Establishment Grant.

This study was made possible with the support and collaboration of the following recreation organizations and individuals:

*Abilities Centre (Alison Wilson)*

*Barrie YMCA (Theresa Matthews)*

*Bradford West Gwillimbury Leisure Centre  
(Stephanie Uren)*

*Collingwood YMCA (Susan Mueller)*

*Gravenhurst YMCA (Marilyn Hovius)*

*Harbourfront Community Centre (George  
Hojbota, Kelly McClure)*

*Orillia YMCA (Marilyn Hovius)*

*Peterborough Sport and Wellness Centre  
(Jennifer Bell)*

*Variety Village (Sherri Risto)*

*Stronach Aurora Recreation Complex (Diana  
Dawson)*

*Wasaga Beach YMCA (Bill Joyce)*

*All YMCAs (Tara Gregor)*

We gratefully acknowledge **Jo-Anne Howe, physiotherapist clinical educator and TIME™ program developer**, for advising on recruitment and clarifying the format and content of the TIME™ program.

**If you have questions about this research, please contact:**

Nancy M. Salbach, PT, PhD

CIHR New Investigator in Knowledge Translation

Associate Professor, Department of Physical Therapy, Faculty of Medicine, University of Toronto

160-500 University Avenue, Toronto, ON M5G 1V7 Canada

Tel: 416-946-8558

Email: [nancy.salbach@utoronto.ca](mailto:nancy.salbach@utoronto.ca)