

Summary

- Fall-related injuries among older adults can lead to serious health consequences and add extra burden to the healthcare system. Age is strongly associated with falls.
- Physical activity is the most effective prevention strategy for reducing the rate of falls among older adults and increasing their ability to remain independent.
- Zoomers on the Go, now called Zoomers in Balance, offered a free 12-week fall prevention exercise program to older adults across the province of New Brunswick.
- The peer-led exercise program was recommended to be offered three times per week for 60 minutes per session.
- Both in-person and online settings were available in English and French.
- The project evaluated changes in participants' risk of falls from before to after Zoomers in Balance.
- 2815 participants averaging 68 years old, SD= 7.1 years (2478 women, 337 men; 2246 English, 562 French) enrolled in the program from all seven health zones in New Brunswick.

HSPF Focus Area	Increasing independence, Quality of Life, and Promoting Healthy Lifestyles
Project Start & End Date	September 15,2019-March 31,2024
Organization/Agency	University of New Brunswick
Location	Various location across New Brunswick
Principal Investigator(s)	Dr. Danielle Bouchard and Dr. Martin Sénéchal

Indicator	Impact / Outcome / Result
In-person and online fitness service development	<ul style="list-style-type: none"> • The number of participants in most of the health zones exceeded recruitment targets, showing demand for this type of service. • While the online classes had a <u>significantly higher attendance</u> rate than the in-person classes, they also had a <u>significantly higher dropout</u> rate.
Improved functional benefits	<ul style="list-style-type: none"> • Both in-person and online participants' physical functioning <u>significantly improved</u> from before to after the Zoomers in Balance program.
Mental and physical health benefits	<ul style="list-style-type: none"> • In-person participants' stress and depression levels <u>significantly reduced</u>. These indicators did not change for the online group. • In-person participants reported perceived <u>improvements</u> in their general health, energy, and social and emotional functioning. The online group did <u>not</u> show improvements in any areas of perceived health.
Fall prevention	<ul style="list-style-type: none"> • There were <u>no significant differences</u> for in-person or online participants' fear of falling from before to after the program. However, the fear of falls was relatively low for the large majority of participants at baseline. • Participants in the online program reported <u>more falls</u> ($N = 9$) than those in the in-person program ($N = 4$), however this difference was <u>not significant</u>.

Methods and Comparison

- The Zoomers in Balance program was evaluated using a randomized controlled trial where online and in-person groups were compared and collected data was analyzed statistically.
- To measure changes in physical functioning, chair stands, arm curl, and 6-minute walk tests were used.
- Participants responded to multiple surveys both before and after the program to assess changes in their mental health and perceived physical health.

- Participants reported information about fall incidents and responded to a survey both before and after the program to assess changes in their fear of falling.
- Medicare data was collected for 2726 participants. This cohort will be followed in the future using NB administrative data to make potential associations between being involved in the program and reduce the risk of falls.

Conclusions and Lessons Learned

- Overall, the Zoomers in Balance program improved older adults' physical functioning, which has potential to reduce the risk of falls, ease activities of daily living and increase independence.
- Online program delivery was associated with a higher attendance rate, but also a higher dropout rate, compared to in-person program delivery. More investigation is needed to understand this better.
- The in-person program was better for improving participants' mental health and health self-perceptions compared to the online program.
- While the program's fall prevention impacts are indirect, participants experienced no change in their fear of falling. Long-term follow-up using NB administrative data within NB-IRDT will test the change in falls.

Recommendations

- Focus on increasing accessibility, attracting underserved communities, and improving male enrollments.

Next Steps

The program has secured short-term funding from Trauma New Brunswick, Research New Brunswick, MITACS, The MEDAVIE Foundation, and the Canadian Institute of Health Research (CIHR). Long-term partnerships are needed to sustain the program and expand outside the province.

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