

Moving Beyond the Pandemic: Understanding the benefits of virtual and in-person delivery of the Minds in Motion[®] program

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Minds in Motion[®]

The Minds in Motion[®] (MiM[®]) program is a once per week cognitive stimulation and physical activity program designed for people living with dementia and their caregivers and is offered both in-person and virtually by the Alzheimer Society of Saskatchewan (ASOS)¹.

Study Rationale

For people living with dementia (PLWD), there is an increased risk and rate of falling compared to the general older adult population². This is a significant concern as most falls result in hospitalization and may result in serious injuries, such as brain injury, fractures, or even death³. In the years between 2018 to 2020, unspecified dementia was the leading cause of death in Saskatchewan⁴. There is promising evidence that exercise programs can help to improve symptoms of dementia and improve walking, balance, and functional ability, all of which are risk factors for falls^{5,6}.

Study Objectives and Design

The first purpose was to measure walking ability, balance during walking, overall balance, functional ability, and fall risk before starting the program and upon completion of the 10-week program. Walking ability and balance during walking was measured using sensors, which capture speed, steps, and turns, all important parameters of fall risk. Overall balance was measured with a number of tests, such as standing on one leg, stepping over obstacles, and quick turns. Functional ability was measured using both strength and speed tests, such as going from sitting to standing. Fall risk was measured with a short questionnaire.

The second purpose was to understand the experiences of participants and their caregivers for both in-person and virtual offerings of the program. Researchers used a semi-structured interview approach conducted virtually with the participant, their caregiver, or both to determine their experience of the program, what they liked and felt could be improved, and recommendations for future programming.

Overall Findings

There were no significant changes in walking ability, balance while walking, overall balance, functional ability, and fall risk between pre- and post-MiM[®] program participation; however, there was maintenance of these parameters. Additionally, participants and caregivers found that the program supported them physically, cognitively, and socially as identified in the themes (Access, Adapt, and Value), supporting quotes, and Recommendations summarized below.

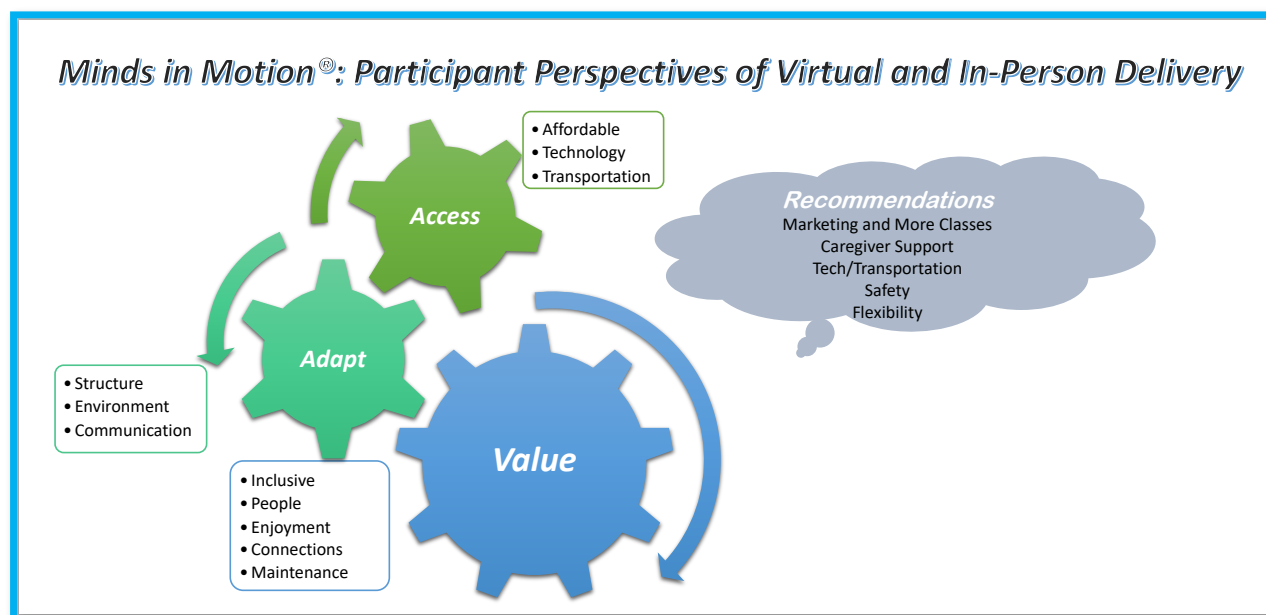
“The only difficulty that we had was transportation.”

“Some of the people have had some technology challenges for sure.”

“It’s a good balance for everybody to see other people in the same situation.”

“I think the cost of the program is very reasonable.”

“Everybody can work at their own level; they’re encouraged to work at their own level.”



“It maintained the baseline [they were] at and that’s kind of my goal is to maintain [their] baseline.”

“It was always more crowded when we were doing it in our own home and not as convenient.”

“Sometimes there’s three or four instructions. And that gets to be a little much.”

“I think they’re run well. The volunteers are awesome and the instructors.”

“There’s lots of things that [they’re] forgetting nowadays but Minds in Motion on Tuesday at 1:30 was really stuck in [their] head.”

Key Takeaways



Differing Needs Met

Both virtual and in-person programming met the needs of participants and/or their caregivers in different ways. For instance, the virtual delivery was beneficial in assisting caregivers and participants to not have to transport and travel, while also allowing for greater reach to more rural communities; however, the in-person delivery was noted as more positive for socialization, viewing the instructor, and availability of volunteer support to assist.

Expanding Access and Continuation

Participants and caregivers would like to see more programming developed to address different levels of dementia and associated needs. To further support physical improvements in balance and fall risk, we recommend that programming should consider increasing class frequency and providing education for the continuation of fall prevention practice at home.



Broader Reach and Support

Other recommendations from participants and caregivers included expanding the marketing of the program to a broader audience and exploring options for caregiver support, such as the availability of volunteer support when a caregiver is unable to attend. Addressing technology challenges for virtual delivery, as well as transportation and environmental challenges for in-person, including navigating outside hazards (ice and snow, stairs, and signage) were also considered important for future programming.



Future Research

More research is needed to help to better understand the impact of falls and fall risk on PLWD and their caregivers and determining programming to best support fall prevention efforts. Ongoing development and evaluation of MiM[®] programming related to fall prevention should continue with larger scale studies.



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All pictures are Stock Images taken from Microsoft® Word, version 16.53.

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