

Healthy Aging in Place

**Improving Rural Seniors' Mobility
and Social Interaction through Exercise**

**Community Report
Watrous, Wolseley, Young**

October 2016

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INTRODUCTION

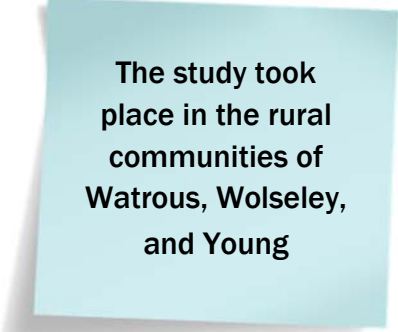
SASKATCHEWAN POPULATION HEALTH AND EVALUATION RESEARCH UNIT (SPHERU)

Since 1999, the Saskatchewan Population Health and Evaluation Research Unit (SPHERU) has promoted health equity among different populations through research. SPHERU is a multidisciplinary research unit comprised of faculty and researchers from the University of Regina and the University of Saskatchewan.

HEALTHY AGING IN PLACE (HAiP) RESEARCH

In a previous study (2011-2014), SPHERU researchers examined and identified interventions that rural seniors utilized to support aging in place in three Saskatchewan communities: Young, Watrous, and Wolseley. Findings from that research identified mobility and social isolation as issues needing to be addressed.

Evidence suggests that exercise programs may help older adults improve mobility and functional capacity (American Geriatrics Society, 2001) and increase social interaction (Hopman-Rock & Westhoff, 2002). Studies regarding exercise in rural Canadian communities show that there is both a need and an opportunity for success of a community-based exercise program (Graham & Connelly, 2013; Witcher et al., 2016). In consultation with community partners from Young, Watrous and Wolseley, this study, *Improving Rural Seniors' Mobility and Social Interaction through Intervention Research* was developed. The purpose was to carry out a community based exercise program over three months in Young, Watrous, and Wolseley, to address these questions:



The study took place in the rural communities of Watrous, Wolseley, and Young

- What impact does the exercise program have on rural seniors' mobility?
- How does the exercise program impact rural seniors' social interaction?
- What are the benefits and challenges of the exercise program delivered in a rural setting? Also, what are the reasons for participating or discontinuing the program?
- What recommendations would participants have for other rural communities who would like to run a similar exercise program?

There was a collaborative effort by three parties throughout the study in developing the research objectives, planning and implementation: Rural Seniors Advisory Committee (leaders in each community); organizational partners from Forever...in *motion* (Saskatoon Health Region (SHR) and Regina Qu'Appelle Health Region (RQHR)), and the university-based research team.

THE EXERCISE PROGRAM

The research intended to look at how a community based exercise program could impact rural senior's mobility and social interaction, so SPHERU partnered with Forever...in *motion* to implement the exercise program for the study. Forever...in *motion* is a community-based exercise program designed for older adults aged 55 years and over and led by a Forever...in



motion trained local peer volunteer leader. Forever...in *motion* was developed in 2002 by SHR who have since partnered with Saskatchewan Parks and Recreation Association (SPRA) to implement the program across the province. Peer volunteer leaders received 24 hours of training by SHR and RQHR. The exercise program incorporates various fitness aspects such as endurance, strength, balance and flexibility.

The exercise program in this study included two parts:


- 1) The Group Exercise Program which ran twice a week in each community. The program included 3 components: instructor-led group exercises, informal socialization and educational information.
- 2) Home-based exercises. In consultation with Forever...in *motion*, a series of 10 simple exercises (strength, balance, flexibility and stretching) were provided to participants who were encouraged to complete these exercises at home daily. Participants were given a tracking calendar to record days in which home exercises were completed.

HOW THE STUDY WAS DONE

FINDING PARTICIPANTS

Participants - both peer volunteer leaders and exercise class participants - were recruited through presentations, advertising, word of mouth, community interaction, and phone calls over a three month period (September to November 2014) prior to the start of the study.

- Presentations included information about the study, participant expectations, and demonstrations of the exercises and tests to gauge participants' mobility.
- Advertisements (i.e., posters, newspaper advertisements, TV advertisements, and electronic banner) were used to attract participants and inform the general public of the dates and times of information sessions.
- Word of mouth became the most successful recruitment method; individuals who confirmed their participation told their friends about the exercise program. Researchers were also present for community events, and this allowed researchers to introduce the study and recruit through informal conversations.
- Phone calls were made to individuals who had participated in the previous HAiP study.



8 volunteer peer leaders were recruited; with two volunteers co-leading each group session

Peer Volunteer Leaders

- ✓ Adults who were local residents in the research communities
- ✓ Did not need to have any prior fitness training
- ✓ Available and willing to commit time to the study
- ✓ Responsible for recruitment of participants, coordinating a host site, and class programming

Exercise Class Participants

- ✓ Older adults (55 years+) residing in rural communities of Young, Watrous, and Wolseley
- ✓ Not expected to have any prior fitness experience or possess complete physical mobility
- ✓ Willing to participate in an exercise group twice a week for three months

Recruitment took place between September and November 2014. A total of 61 individuals were recruited, with 53 participants recruited prior to the pre-test phase (Time 1), and 8 additional participants joining the study at Time 2, prior to the start of the exercise program.

The overall attrition rate was 28% with 17 individuals withdrawing over the course of the three months and 44 participants completing the study. Of those who withdrew from the study, 6 did so due to health reasons and another 6 were prevented from continuing due to family or other commitments. Others withdrew for a variety of reasons, including one person who withdrew as a participant to become a leader.

Table 1: Number of participants by location and interview time

Location	Time 1 (T1) Nov – Dec 2014	Time 2 (T2) February 2015	Time 3 (T3) May 2015	Time 4 (T4) Aug – Sep 2015
Young	17	14 - 2 withdrawals - 1 not available	14 - 1 withdrawal + 1 now available	12 - 2 withdrawals
Watrous	26	29 + 3 new recruits	25 - 4 withdrawals	24 - 1 withdrawal
Wolseley	10	13 + 5 new recruits - 2 withdrawals	9 - 4 withdrawals	8 - 1 withdrawal
Total participants:	53	56 + 8 recruited - 4 withdrew - 1 not available	48 - 9 withdrew + 1 now available	44 - 4 withdrew

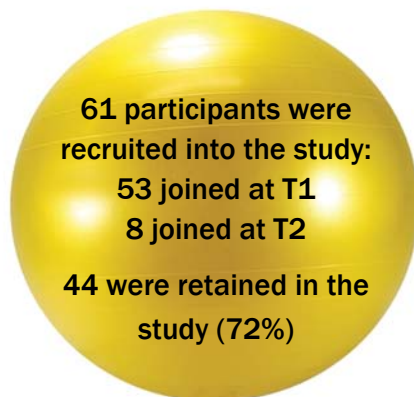


Table 2: Participant characteristics (at Time 2, N=57)

Characteristics	# of participants	% of total participants
Women	41	73%
Men	15	27%
University degree	8	14%
Some post-secondary	21	38%
Grade 12	11	20%
Less than Grade 12	16	28%
Lived in a house	42	75%
Lived in apartment or condo	8	14%
Lived in semi-detached or other	6	11%
Owned their home	45	80%
Rented their home	11	20%
Lived with another person	30	54%
Lived alone	26	46%

Participant ages ranged from 57 to 91
Average age was 74



Watrous Exercise Group

Table 3: Level of participant activity, illness & injury (at Time 1, N=52)

Characteristics	# of participants	% of total participants
Had a fall* in past 3 months	8	15%
Do regular exercise or physical activity	41	79%
Were limited by illness or injury	31	60%
<i>due to temporary illness</i>	7	13%
<i>due to long-term/chronic condition</i>	18	35%
<i>due to permanent injury</i>	6	12%

31 participants (60%) reported some limitations upon entering the study

**Fall = an event that results in a person coming to rest inadvertently on the ground or floor or other lower level, with or without injury, which may be witnessed or unwitnessed.*



Young Exercise Group

HOW INFORMATION WAS COLLECTED

Looking at Mobility

Researchers used several tools to help understand participants' mobility and functional health: *the timed up-and-go test, sit-to-stand test, functional reach test, and the six-minute walk test*. These are described in Appendix A. Participants were also asked to complete the Instrumental Activities of Daily Living (IADL) assessment and Life Space Assessment to aid in understanding participants' mobility as they move about in their living environments (see Appendix B). Each participant was given a "passport" in which scores for each mobility test were recorded for each of the four times that researchers met with participants.



Understanding Peer Volunteer Leaders and Participants' Social Interaction

While standardized instruments were used to measure mobility, a more open-ended approach was used to understand leaders' and participants' social lives – specifically how involvement in the exercise program would impact involvement in social organizations and

Interviews were held to assess the social aspect of participating in the exercise program

activities as well as their perspectives on the social component of the exercise programming. Semi-structured interviews following an interview guide were used with exercise participants. Focus groups were held with peer volunteer leaders, again using a semi-structured guide comprised of open-ended questions. Interviews were held for those unable to attend a focus group. Interview and focus group guides can be found in Appendix C.

WHEN INFORMATION WAS COLLECTED

Researchers collected information four times during the study: three months and one week before the exercise program started; one week and three months after the program ended. An additional follow up with leaders was completed six months after the program was finished.

Researchers met with participants 4 times over the course of the study

Table 3: Data Collection Timeline

Time Point	When Collected	Mobility Assessment	Interview
Time 1 (T1) Baseline	3 months before start of exercise program Nov-Dec 2014	✓	
Time 2 (T2) Pre-Test	one week before start of exercise program February 2015	✓	✓
Time 3 (T3) Post-Test	one week after end of exercise program May 2015	✓	✓
Time 4 (T4) Follow-up	three months after end of exercise program Aug-Sep 2015	✓	✓
Follow-up with Leaders	Dec 2015-Jan 2016		✓

WHAT WE FOUND

Wolseley and Young had 24 sessions within the exercise program period while Watrous had a total of 20 sessions within the same time period. Eighty-three percent of participants in Wolseley, all of the participants in Young, and 71% of participants in Watrous attended at least one-half of the exercise sessions.

If participants had to miss any exercise sessions, absence was primarily due to illness, injury (unrelated to the exercise program), pre-existing medical conditions or medical appointments. On some occasions participants did not attend exercise sessions because they either had company or were away visiting their families. Attending funerals of family members and friends was another reason for missing sessions.

In the following section findings from mobility testing and interviews with participants, and interviews and focus groups with peer leaders are presented, organized as follows:

Exercise Program Participants

- ✓ Effects on mobility
- ✓ Social interaction
- ✓ Goals and reasons for participating
- ✓ What participants enjoyed
- ✓ What participants found challenging
- ✓ Suggestions for improvement

Peer Volunteer Leaders

- ✓ The role of a peer volunteer leader
- ✓ Perspectives on training and running the program
- ✓ What peer leaders enjoyed

The social aspect of the program was important to participants:

Young – 93%

Watrous – 90%

40 participants (85%) improved their scores on the 6 minute walk between T2 and T3 testing

WHAT WE FOUND: EXERCISE PROGRAM PARTICIPANTS

Effects on Mobility

Table 4 shows the change in mobility comparing *before* (T2) the exercise program to *after* (T3) completing the program. Although some individual scores showed a decline, on average a majority of participants' mobility remained the same or increased after participating in the program. Most notably, 85% of participants improved their time in the six-minute walk.

Table 4: Change in mobility after participation in exercise program (N=47*)

Mobility Test	Declined		No Change		Improved	
TUG (timed up-and-go)	3	6%	17	36%	27	57%
Functional Reach Test	20	43%	0	0	26	57%
Sit-to-stand (once)	5	11%	28	61%	13	28%
Sit-to-stand (5 times)	15	33%	7	15%	24	52%
6 minute walk	7	15%	0	0	40	85%
IADL (instrumental activities of daily living)	5	11%	40	85%	2	4%
Life-space assessment	13	28%	9	19%	25	53%

Values indicate the change in score between T2 and T3 mobility tests.

**N=46 for the functional reach and sit-to-stand tests, as one participant was not able to complete those particular tests.*

Social Interaction

Participants in all three communities reported a high level of social interaction prior to the start of the exercise program, with at least 85% involved in at least one community organization. The social aspect of the exercise programming was also important to the majority of the participants. 93% of Young participants, 90% of Watrous participants and 67% of Wolseley participants felt the social aspect of the program was a priority for them.

Participants cited a number of reasons why the social aspect was important to them related to:

- ❖ Creating new relationships or strengthen existing ones:
 - The program provided an opportunity to meet new people
 - Some participants felt they were able to get to know their neighbours better
 - The group setting provided an opportunity to create new friendships
- ❖ Engaging in an activity:
 - Many suggested the exercise group was a great way to get out of the house
 - Some reported it was a different type of activity to do with friends
- ❖ Exercising:
 - Being part of a group helped some participants feel motivated to work harder and get in better shape
 - Some felt that exercising with others made exercising more enjoyable

Goals and Reasons for Participating

Participants identified different reasons for wanting to take part in the exercise program which were related to:

- ❖ Socializing:
 - The sessions were an opportunity to get out of the house and socialize
 - The program was an opportunity to engage in a different way of socializing
 - Some participants were encouraged by a partner or friend to take part
 - The camaraderie of a group setting was appealing
- ❖ Improving health:
 - A desire to improve current health conditions
 - A desire to improve mobility, strength or flexibility
 - Felt they wanted to learn new exercises and proper techniques
 - Saw the exercise program as providing greater motivation to stay active
- ❖ Interest in the exercise program and study:
 - A desire to try something new
 - Curiosity about the program
 - Believed in the concept of the exercise program
 - Believed that research for rural seniors is important

"...there was 'camaraderie' and the setting lent itself to group cohesion which allowed participants to become more motivated about being more active."

What Participants Enjoyed

- ❖ The group aspect of the program:
 - Many found it allowed for a different opportunity to socialize
 - Engaging in the group provided an opportunity to create new relationships and strengthen existing ones
 - Enabled participants to have fun while doing exercise with others
- ❖ The way the program was presented:
 - Participants enjoyed the structure of the class with a format and routine
 - The program was flexible enough to accommodate all levels of physical activity
 - There were a variety of exercises so participants did not get bored
 - In Young, participants enjoyed the music played during their sessions
- ❖ The educational information presented during the class including how to do the exercises correctly and benefits of doing them

Challenges

- ❖ Some participants had individual struggles with physically completing the exercises; others indicated that they were unable to do some of the programming or were limited in their abilities due to soreness or pre-existing health conditions
- ❖ Participants observed a divide in physical ability, and some felt it was a challenge to balance between those with higher or lower levels of functional ability. In one community, this resulted in development of two sessions to accommodate the different levels of ability

"...at first, the exercises were challenging and hard to do, and following along with the leader..."

"Some of the exercises were extra challenging throughout the program."

Suggestions for Improvement

Participants reflected on what changes they would make to the program or what they believed would make the program even more successful. Suggestions included:

- ❖ Scheduling:
 - More flexibility with the time/day the exercise sessions are scheduled was suggested

- Some participants wished there could be a decrease in the duration of the sessions
- Others would like to see more sessions added as an option to fit with schedules
- ❖ Ongoing support for leadership
 - Participants felt it was important to have compatibility between leaders to help with the organization and the instruction of the program
 - Both participants and leaders suggested that it would be good to have mentors periodically check in with leaders to help with challenges related to instruction
- ❖ Ideas to engage participants
 - Participants thought that better promotion and communication about the program would help draw more participants in
 - A suggestion was made to have coffee after the sessions to provide more time to socialize
 - Participants thought it was a good idea to play music during the sessions
 - Some thought it might be beneficial to create a men's group
- ❖ Change the program
 - Some participants suggested splitting the group according to ability
 - Some participants would like to have a break within sessions
 - Another suggestion was to hold the exercises in a bigger space



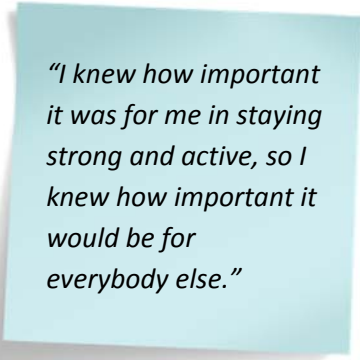
**Wolseley
Swinging Bridge**

WHAT WE FOUND: PEER VOLUNTEER LEADERS

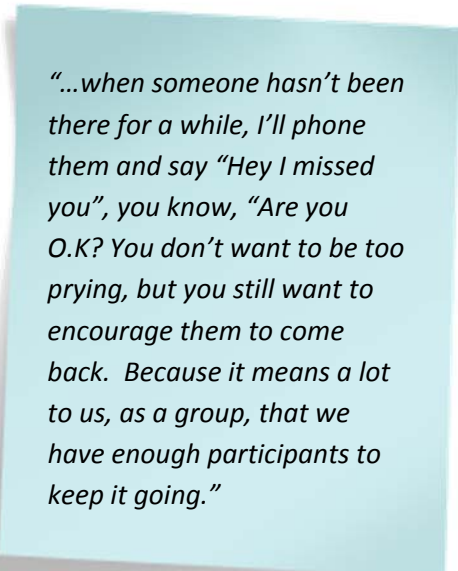
The Role of a Peer Volunteer Leader

Similar to participants, leaders felt good leadership was needed to maintain a successful community-based exercise program. The leaders brought a number of positive attributes and their own unique flare to the class. Two specific characteristics were common among the leaders:

- ❖ Their understanding the importance of exercise for themselves and for others
- ❖ Their commitment to the well-being of the community



"I knew how important it was for me in staying strong and active, so I knew how important it would be for everybody else."



"...when someone hasn't been there for a while, I'll phone them and say "Hey I missed you", you know, "Are you O.K? You don't want to be too prying, but you still want to encourage them to come back. Because it means a lot to us, as a group, that we have enough participants to keep it going."

Perspectives on the Training and Running the Program

Peer volunteer leaders were asked to reflect on the training they received, the experience of taking the training and with starting and running the program. Themes included:

- ❖ Applicability of training material
 - Some felt that there was too much information in training about diseases

"Learning all about the diseases, I thought that was a little over the top. Most people that come to exercises [...] they've visited their doctor and things."
 - Information about particular exercises or stretches and which muscles were used were useful

❖ Support with leadership

- Support from the health regions was essential to train and introduce the program and continued support has been important to help engage people and maintain the program

“The Forever...in motion leader was available at any time and if we had any questions to ask her anything...”

- Even though there was a lot of information, leaders gained confidence from the training. When the exercise program began, many leaders initially felt nervous but with the support of their co-leaders and the participants, they gained confidence in their abilities over time

“Well of course, you know we were hesitant because neither one of us had done anything like that, so of course we were nervous. But you know the people were so good. They accepted whatever we did.”

- More instruction on how to create and lead a class would be helpful. Suggestions included practice in running a class from start to finish during training

“I thought too, the lesson planning, was kind of a fourth or fifth thing on the items. To me that was maybe more important, that’s really why I took it. And I kind of wanted more of that, the planning of it and how it flows, and that.”

- Additional follow up training would be beneficial in continued development of the program

“So within the 3 days it gives you a great foundation but it doesn’t give you a lot of extras... So for someone who had never taught before, it’s good to get them started, but having the extra sessions is wonderful to bring new ideas.”

❖ Responsibility to the participants and program:

- Participants were capable of deciding which exercises they could and could not do and leaders felt that they should respect participants’ autonomy in making those decisions

“Some people just seemed to know, that they could do it easier than others, and some had problems because something didn’t work because their shoulders

were sore, and of course we explained to them, don't push yourself. Be sure to just go to whatever your body tells you, you can't do this, then don't do it."

- Leaders found it challenging at times to ensure the program was engaging and of benefit to those participating while balancing the different ability levels of participants
- Being a leader is a large commitment, in both time and energy. It was important for each community to have at least two leaders to keep the program running and to be able to have support for each other

"Well I didn't want it to stop just because it got too much for two leaders, you know, if there's more people participating, as the leader then it's got a better chance of surviving."

"There were some things that we switched off even in-between, she knew there were certain things I couldn't do, and every now and again there would be an "ouch" and she'd say well I can do that one."

What Peer Volunteer Leaders Enjoyed

The aspects peer volunteer leaders enjoyed about the program often mirrored participants' views on what they viewed as enjoyable:

- ❖ Leaders thought the most enjoyable aspect of the program was the social interaction, which they felt was important to their own well-being and to the well-being of their participants. Being part of a group was a good reason for many to get out and start doing exercises
- ❖ The structure of an exercise class was important for some as it made it easier to get out and socialize

"I think it's more structured too, I find for me that coffee just doesn't do it. I don't enjoy it and I found that it's a lot more stress than it is coming [...] and I find in the exercise group I can be in a social atmosphere, but it's structured, and I find that a little easier."

- ❖ The program was an opportunity to meet new people and make new friends

“And I was very new to the community, I mean it brings me out, I can now comfortably come to coffee hour. Sometimes I’ll come before exercise and join with coffee row. So it’s put me in the community a lot more, which I never, it wouldn’t be happening.”

“And that’s good because I mean a lot of people don’t have that much of a social life, so the sociability of being together, and making friends, and getting to know new people, so yeah...”

- ❖ Some leaders felt that it was an opportunity to get more involved in the community

“And I’m finding it’s balancing more, and I’m finding I have better winters now. Not that they were bad. But I... you know in the summer time it’s me in the garden and I’m just quite happy, with you know, they don’t talk back to me. And I’m just whatever, but no, it’s gotten me out into the community again. Which is good.”

WHAT WE FOUND: MOVING FORWARD

Maintaining the Program

- ❖ When asked if participants would continue with the program, at least one-half of participants in the study indicated that they would continue:
 - Three-quarters of both of Young and Wolseley participants and almost one-half of Watrous participants indicated that they would participate when the program started up again
 - Young participants who were not continuing on shared they would continue at a later time or could not continue because they were relocating
 - Approximately one-third of Watrous participants were unsure if they would participate again; this was dependent on how they were feeling health wise or what other activities they were involved in. Participants who were not going to participate in the future (16%) cited reasons such as health issues, being too busy for the program or feeling that the program was not a fit for them
 - Wolseley participants who were not continuing on shared that health conditions would prevent them from participating

- ❖ Many of those who completed the program indicated they were still doing the home exercises:
 - Approximately one-half of Young and Watrous participants and about two-thirds of Wolseley participants indicated they were still exercising independently at home
 - Participants reported that they tended to focus on the stretching and balancing exercises at home while some continued to use the exercise bands for their home exercises with a focus on leg, back and arm exercises

- ❖ Participants indicated that the program increased the level of physical activity they engaged in:
 - Participants felt less reluctant to exercise. “... [I] want to move instead of sit around.” Participants reported a range of improvements including increased physical ability, flexibility and strength, developing good healthy habits, and losing weight. “I can do more exercise than I did previously.” “I just feel better overall.”
 - All of the Wolseley participants and 83% of Young participants noticed an increase in the physical activity they engaged in, while 28% of participants in Watrous noticed an increase. The remaining participants in Watrous felt that their level of physical activity stayed the same with a few stating their activity levels decreased since the program ended

Participants’ Advice for Other Rural Communities

Participants provided insights and suggestions that would be helpful for other rural communities who were interested in creating a similar exercise program:

- ❖ Participants felt leaders should be enthusiastic, encouraging, well trained, open to feedback, confident in their abilities, respected by the community and trusted by their peers

“The most important part of developing a successful exercise program is having the right instructor or leader.”

- ❖ They felt recruitment of participants is crucial to a successful program

“Advertising helps, and a demonstration of the exercises to start up the program would help people buy in.”
- ❖ The program should be fun and lighthearted to help recruit and retain participants. One suggestion was to add music to the sessions
- ❖ Scheduling of the sessions should suit attendees

“There needed to be flexibility with finding the appropriate time and a day to set up sessions which do not interfere with other activities.”
- ❖ Since this exercise program is meant to be free for participants and run by volunteers, community involvement and resources are important for the program’s continued survival. For example, each of the three communities was able to make use of their Senior Centre’s free of charge. However, the exercise program does require some equipment purchases and each community was able to raise money in different ways:

“I got grants from the town over the years for all my equipment and music. This is a volunteer thing, and we’re not supposed to charge people, so it would be tough to get all that equipment.”

“Because we have no money, on every Monday there’s an organization that brings coffee or cookies or sweets and everybody throws in a toonie for coffee. So we did it twice to raise a little money to buy bands and for music. And you know just a few odds and ends we need for our program.”

“We have asked the people to give a nominal amount every time that we go [to the Senior Centre], starting at a \$1 or whatever they’d like to put in, we have a little jar there. Because the Senior Centre doesn’t charge rent for anybody but they can only accept donations and so we’re just making a donation every time.”
- ❖ The exercise program is currently continuing in all of the communities. Leaders are optimistic about expanding the program, adding new exercises and getting creative with the help of follow-up support from the Forever...in *motion* leader trainers, provided by the health regions. Leaders mentioned that they are continually recruiting

new members, typically by word of mouth with an invitation to attend or advertising through posters, signs, and town websites.

Yes a lot of it is, “come with me, you need to do this”. However, many say “I tell my friends to come, but they just don’t want to come out and do it”. But that’s the best way I think, is getting them to bring a friend.”

Overall, participants shared that developing these programs across rural communities created opportunities for social interaction for older adults to be able to visit, socialize and interact with others within a group setting. The program provided an opportunity to get out of their homes to exercise, fostering improvements in physical health and increased social interaction.

References:

- American Geriatrics Society Panel on Falls Prevention. (2001). Guideline for the prevention of falls in older persons. *Journal of the American Geriatrics Society*, 49(5), 664-672. doi: 10.1046/j.1532-5415.2001.49115.x
- Graham, L.J., & Connelly, D.M. (2013). “Any movement at all is exercise”: A focused ethnography of rural community-dwelling older adults’ perceptions and experiences of exercise as self-care. *Physiotherapy Canada*, 66(4), 333-341.
- Hopman-Rock, M., & Westhoff, M. (2002). Development and evaluation of an “aging well and healthy” a health-education and exercise program for community-living adults. *Journal of Aging and Physical Activity*, 10, 364-81.
- Witcher, C., Holt, N., Young, W., Blanchard, C., Murnaghan, D., & Spence, J. 2016. Physical activity perceptions and influences among older adults in rural Nova Scotia. *Canadian Journal on Aging*, 35, 115-129.

APPENDIX A

1. Timed Up and Go Test (TUG):

Equipment: Arm chair, tape measure or meter stick, masking tape, cone, stop watch.

1. Begin the test with the participant sitting in a chair with arms. The participant's back should be resting against the chair, and their arms resting on the armrests. The chair should be stable, and positioned so that it will not move when the participant moves from sitting to standing.
2. Place a piece of tape at the place where their feet rest comfortably on the ground while sitting in the chair. Place another piece of tape (and cone) on the floor **3 meters away** from the chair so that it is easily seen by the participant.
3. Instructions to participant: *"When I say 'GO' I want you to stand up, walk up to the tape, turn around, walk back to the chair, and sit down again. Walk at your regular pace."*
4. **Start timing** when participant's back leaves the chair and **stop timing** when bottom is seated in the chair (i.e. back doesn't have to touch).
5. The participant wears their regular footwear, may use their usual walking aids, but may not be assisted by another person. There is no time limit. They may stop and rest (but not sit down) if they need to.
6. The participant should be given a practice trial that is not timed before testing.
7. Normal healthy elderly usually complete the task in 10 to 12 seconds. Very frail or weak elderly with poor mobility may take 2 minutes or more.

2. Functional Reach Test:

Equipment: Meter stick, masking tape, arrow stickies.

1. Fix the meter stick to the wall at a height approximate to the shoulder height of the participant. This doesn't have to be exactly precise. Don't have the person standing with arms extended to fix the meter stick. This will tire the participant before the testing.
2. Ask the participant to stand erect with their feet shoulder width apart, and one arm elevated to 90 degrees of shoulder flexion. Their body should not touch the wall.
3. **Ask the participant to place their closed fist against the meter stick.** Place a marker where the middle knuckle touches the meter stick.
4. Then **ask the participant to slide their fist forward as far as possible without moving their feet or lifting their heels.** When they have reached as far as possible, place a second marker where their middle knuckle touches the meter stick. Measure and note the distance between the two markers.
5. Functional reach is the difference between the two positions of the fist on the meter stick.
6. Perform this test three times and record the measurements. The score is the average of the three.

3. Sit to Stand Test:

Equipment: Straight back chair, stop watch.

1. Use a straight back chair with a solid seat. The chair should be stable, and positioned so that it will not move when the participant moves from sitting to standing.
2. Ask the participant to sit on the chair with their arms folded across their chest, and their back resting against the chair.
3. Then ask the participant to stand up and sit down as quickly as possible **just once**, keeping their arms folded across their chest.

Start timing when participant's back leaves the chair and **stop timing** when bottom is seated in the chair (i.e. back doesn't have to touch).

4. After a rest, ask the participant to stand up and sit down as quickly as possible **five times**, keeping their arms folded across their chest.

Start timing when the participant's back leaves the chair and **stop timing** when the participant's bottom is seated in the chair the **5th** time.

One partner counts the sit/stands out loud, and the other records the time with the stopwatch.

APPENDIX B

1. Instrumental Activities of Daily Living (IADL)

Instructions: Circle the scoring point for the statement that most closely corresponds to the participant's description of their current functional ability for each task.

Task	Score	Task	Score
A. <u>Ability to use telephone</u> 1. Operates telephone on own initiative; looks up and dials numbers, etc. 2. Dials a few well-known numbers 3. Answers telephone but does not dial 4. Does not use telephone at all	 1 1 1 0	E. <u>Laundry</u> 1. Does personal laundry completely 2. Launders small items; rinses stockings, etc. 3. All laundry must be done by others	 1 0 0
B. <u>Shopping</u> 1. Takes care of all shopping needs independently 2. Shops independently for small purchases 3. Needs to be accompanied on any shopping trip 4. Completely unable to shop	 1 0 0 0	F. <u>Mode of transportation</u> 1. Travels independently on public transportation or drives own car 2. Arranges own travel via taxi, but does not otherwise use public transportation 3. Travels on public transportation when assisted or accompanied by another 4. Travel limited to taxi or automobile with assistance of another 5. Does not travel at all	 1 1 1 0 0
C. <u>Food preparation</u> 1. Plans, prepares and serves adequate meals independently 2. Prepares adequate meals if supplied with ingredients 3. Heats and serves prepared meals, or prepares meals but does not maintain adequate diet 4. Needs to have meals prepared and served	 1 0 0 0	G. <u>Responsibility for own medications</u> 1. Is responsible for taking medication in correct dosages at correct time 2. Takes responsibility if medication is prepared in advance in separate dosages 3. Is not capable of dispensing own medication	 1 0 0
D. <u>Housekeeping</u> 1. Maintains house alone or with occasional assistance (e.g., "heavy work domestic help") 2. Performs light daily tasks such as dishwashing, bed making 3. Performs light daily tasks but cannot maintain acceptable level of cleanliness 4. Needs help with all home maintenance tasks 5. Does not participate in any housekeeping tasks	 1 1 1 1 0	H. <u>Ability to handle finances</u> 1. Manages financial matters independently (budgets, writes checks, pays rent and bills, goes to bank), collects and keeps track of income 2. Manages day-to-day purchases, but needs help with banking, major purchases, etc. 3. Incapable of handling money	 1 0 0

2. Life-Space Assessment

Instructions: Circle the scoring point for each section (life-space level, frequency, independence) according to the participant's responses. Questions apply to activities within the past month. You are not required to calculate the score.

Life-space level		Frequency				Independence		Score	
During the past four weeks, have you been to...		How often did you go there?				Did you use aids or equipment? Did you need help from another person?			
<i>Life-Space Level 1...</i> Other rooms of your home besides the room where you sleep?	Yes 1	No 0	< 1 time /week 1	1-3 times /week 2	4-6 times /week 3	Daily 4	Required personal assistance 1 Used equipment only 1.5 No equipment or personal assistance needed 2	<i>Level 1 score:</i>	
Score	_____ x		_____ x				_____ =		
<i>Life-Space Level 2...</i> An area outside your home such as your porch, deck or patio, apartment hallway, or garage in your own yard or driveway?	Yes 2	No 0	< 1 time /week 1	1-3 times /week 2	4-6 times /week 3	Daily 4	Required personal assistance 1 Used equipment only 1.5 No equipment or personal assistance needed 2	<i>Level 2 score:</i>	
Score	_____ x		_____ x				_____ =		
<i>Life-Space Level 3...</i> Places in your neighbourhood, other than your own yard or apartment building?	Yes 3	No 0	< 1 time /week 1	1-3 times /week 2	4-6 times /week 3	Daily 4	Required personal assistance 1 Used equipment only 1.5 No equipment or personal assistance needed 2	<i>Level 3 score:</i>	
Score	_____ x		_____ x				_____ =		
<i>Life-Space Level 4...</i> Places outside your neighbourhood, but within your town?	Yes 4	No 0	< 1 time /week 1	1-3 times /week 2	4-6 times /week 3	Daily 4	Required personal assistance 1 Used equipment only 1.5 No equipment or personal assistance needed 2	<i>Level 4 score:</i>	
Score	_____ x		_____ x				_____ =		
<i>Life-Space Level 5...</i> Places outside your town?	Yes 4	No 0	< 1 time /week 1	1-3 times /week 2	4-6 times /week 3	Daily 4	Required personal assistance 1 Used equipment only 1.5 No equipment or personal assistance needed 2	<i>Level 5 score:</i>	
Score	_____ x		_____ x				_____ =		
							Total score (all levels):		

APPENDIX C

Social Interaction – Participant Interview Guide

SECTION 1: Level of Social Engagement

1) How many social organizations are you involved in?

- a) None
- b) One
- c) Two or More

If involved, which social organizations are you involved in?

2) Do you know of any senior activity programs in your community?

- a) Yes

If yes, tell which programs you have heard of:

- b) No

3) Do you use any of these senior activity programs?

- a) Yes
- b) No

4) In addition to this (our study) exercise program, do you participate in any other senior activity programs?

- a) Yes

If yes, tell which programs are they:

- b) No

5) Would you like to have other senior activity programs? What would they be?

6) How often do you have telephone conversations with friends and family?

- a) Several times/day
- b) Once/day
- c) Few Times/week
- d) Once/week
- e) Less frequently

7) How often do you meet in person with friends and family?

- a) Several times/day
- b) Once/day
- c) Few Times/week
- d) Once/week
- e) Less frequently

8) Do you use the internet?

a) Yes, I use the internet.

If yes, what do you use the internet for?

b) No, I don't use the internet.

SECTION II: Exploring Views about the Program

1) Why did you choose to participate in this exercise program?

2) What do you hope to get out of the exercise program? [Probe: physical aspects, social aspects]

3) Is there anything else you wanted to add that was not asked?

Peer Volunteer Leaders – Focus Group Guide

1. Can you tell us why you volunteered to be an exercise leader?

2. What was your experience during the training?
Probe:
 - layout/format of the course
 - adequate materials
 - training schedule

3. After the training, how prepared did you feel to begin the exercise program in the community?

4. Did you feel you had sufficient supports and resources while leading the exercise program? In what ways?
Probe:
 - adequate facility
 - exercise equipment
 - support from co-leaders

5. What did you enjoy about the exercise program?

6. What were some of the challenges that you and participants experienced about the exercise program?
Probe:
 - schedule – time and place
 - group size
 - exercise intensity and structure
 - range in age and capacity
 - how were challenges overcome?

7. Did you help participants with the home exercises?
Probe:
 - demonstrating the exercises
 - tracking
 - other ways

8. How do you think the exercise program affected you and the participants, especially in the area of social interaction and engagement?

9. How did the exercise program fit in with existing programs in your community?

10. Is there an exercise program continuing in your community?

Probe:

- supports and resources available to sustain
- recruitment & retention strategies

11. What would an ideal exercise program for seniors look like in your community?

12. Is there anything that has not been touched on here that you would like to comment on?



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