

Supplementary Material

Student-run falls prevention programmes for older adult community members: a pilot study

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Supplementary File S1: Detailed description of programme and methods

A student-run falls prevention programme

An 8-week student-run *Falls Assessment and Prevention* programme with the aim of addressing the needs of individuals identified as having a high risk of falling was developed by students in consultation with supervising academic staff. The programme was tailored to reduce the risk of falls and enhance overall well-being through integrating the knowledge and skills of health professionals and students from three health disciplines (Occupational Therapy; Nursing; and Exercise Physiology).

The brief provided to students was to design and run a programme with multifaceted objectives:

- Identify and assess individual fall risk.
- Provide evidence-based falls prevention education.
- Enhance balance, strength, and flexibility through tailored exercises.
- Promote home safety awareness.
- Foster an interprofessional approach to healthcare.

A unique aspect of the programme was its interprofessional collaboration. Students training as occupational therapists, nurses, and exercise physiologists came together once a week for eight weeks to plan and develop education sessions and activities on eight topics: preventing falls; falls assessment and creating a safe home environment; what to do if you have a fall; medications, Vitamin D and falls; impact of healthy diet and hydration; healthy feet and good footwear; the importance of staying active and; staying falls free in daily activities. In the week following these planning sessions, clients identified as at-risk and referred to the programme attended a total of eight weekly strength and balancing activities followed by

falls education sessions. The exercise sessions were supervised by students training as exercise physiologists, with the falls education sessions led by nursing and occupational therapy students. The sessions ran concurrently for about two hours in total and were undertaken in-person at the tertiary training campus.

Ethics

Ethical approval to conduct data collection from programme participants was obtained from the Wintec HERG Committee (Approval Numbers: WTFE14130820; WTFE10111022). Prior written consent was obtained from those surveyed.

Participants

In this paper, we present outcomes from the perspective of 7 participants in this pilot programme who agreed to be surveyed, of 8 total participants. A purposeful sampling strategy was employed to recruit participants from around Hamilton, Waikato. Clients were recruited from two pathways: existing clients of a student-led clinic operating at Wintec deemed likely to benefit, and from a health screening programme undertaken by students in the community. Participants were aged 65 years and older; presented with a moderate to high risk of falling (determined via a 30-second chair stand test, four stage balance test, and Timed Up and Go (TUG) test); and were generally healthy without severe medical conditions that would prevent participation in physical activities. Absences from weekly sessions were largely due to them being out of town, having personal matters to attend to, or attending medical appointments.

Data collection

Data was collected using a mixed-method survey administered at the programme's conclusion. The survey was developed by the research team (see Figure 1) and aimed at gathering insights into the participants' experiences in the programme. Specifically, we

sought to understand what participants found useful in the programme, as well as identify any enablers and challenges they faced in applying the gained knowledge. The survey comprised two sections: fourteen Likert-scale items graded on a scale from 1 to 5, with 1 indicating strong disagreement and 5 indicating strong agreement; and three open-ended questions soliciting brief responses, serving as an extension to the Likert-scale items. Respondents were encouraged to elaborate on the beneficial and challenging aspects and offer recommendations for programme enhancements. The survey provided a platform for participants to reflect on their overall experience of the programme, quantify the knowledge acquired, and articulate insights into the practical aspects of implementing the falls prevention strategies shared with them.

Figure 1: Post-programme questionnaire

**Te Kotahi Oranga | Health and Wellness Centre & Biokinetic Clinic
Falls Activities and Prevention Programme.**

Post-Programme Questionnaire

Thank you for your valuable participation in the falls programme, which has made a positive contribution to our students' clinical placement experience. We endeavour to keep the programme running and would highly appreciate your responses and feedback. Your input will assist us in evaluating the programme for future improvements.

Please tick one response for each question.

		Strongly agree	Agree	Neutral	Disagree	Strongly Disagree
1	I am satisfied with the falls programme I attended.					
2	I am confident in my ability to avoid falls after completing the programme.					
3	I am confident in identifying and mitigating fall risks in my home.					
4	I am confident in identifying and mitigating fall risks in my surroundings.					
5	I am prepared to respond appropriately to a fall after completing the programme.					
6	I am confident of my ability to take appropriate actions if I have a fall.					
7	I have a better understanding of the relationship between nutrition, vitamin D, and falls.					
8	I have a better understanding of the importance of healthy feet and good footwear.					
9	I am dissatisfied with the falls programme you attended.					
10	I am not confident in my ability to avoid falls after completing the programme.					
11	I am not confident in identifying and mitigating fall risks in my home.					
12	I am not confident in identifying and mitigating fall risks in my surroundings.					
13	I am unprepared to respond appropriately to a fall after completing the programme.					
14	I am not confident of my ability to take appropriate actions if I have a fall.					
15	My understanding of the relationship between nutrition, vitamin D, and falls has not improved.					
16	My understanding of the importance of healthy feet and good footwear has not improved.					

Please write your response for the questions.

17. The three things I have found most helpful from the programme:

18. My suggestions for improving the falls programme:

19. The challenges or hurdles I faced while trying to implement what I have learned from the programme:

Data analysis

Descriptive statistics from Part 1 of the survey were produced using Microsoft Excel.

Qualitative data from open-ended questions (Part 2 of the survey) on a) participant experiences of the programme, b) suggestions for improvements, and c) challenges and hurdles were analysed by the research team individually and then collectively to identify key themes and select representative quotes.

Supplementary File S2: Participant responses to Likert-scale questions ($n = 7$)

	Strongly agree	Agree	Neutral	Disagree	Strongly disagree
I am satisfied with the falls programme I attended	<input checked="" type="radio"/> 7	<input type="radio"/> 0	<input type="radio"/> 0	<input type="radio"/> 0	<input type="radio"/> 0
I am confident in my ability to avoid falls after completing the programme	<input type="radio"/> 4	<input type="radio"/> 2	<input type="radio"/> 1	<input type="radio"/> 0	<input type="radio"/> 0
I am confident in identifying and mitigating fall risks in my home	<input type="radio"/> 5	<input type="radio"/> 1	<input type="radio"/> 1	<input type="radio"/> 0	<input type="radio"/> 0
I am confident in identifying and mitigating fall risks in my surroundings	<input type="radio"/> 5	<input type="radio"/> 2	<input type="radio"/> 0	<input type="radio"/> 0	<input type="radio"/> 0
I am prepared to respond appropriately to a fall after completing the programme	<input type="radio"/> 5	<input type="radio"/> 2	<input type="radio"/> 0	<input type="radio"/> 0	<input type="radio"/> 0
I am confident of my ability to take appropriate actions if I have a fall	<input type="radio"/> 5	<input type="radio"/> 1	<input type="radio"/> 1	<input type="radio"/> 0	<input type="radio"/> 0
I have a better understanding of the relationship between nutrition, vitamin D, and falls	<input checked="" type="radio"/> 6	<input type="radio"/> 0	<input type="radio"/> 0	<input type="radio"/> 1	<input type="radio"/> 0
I have a better understanding of the importance of healthy feet and good footwear	<input checked="" type="radio"/> 6	<input type="radio"/> 1	<input type="radio"/> 0	<input type="radio"/> 0	<input type="radio"/> 0