Long term fall prevention behaviour after participation in the *Stepping On* program

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Stepping On fall prevention program

Building self-confidence, making decisions, behavioural change

Program includes 8 face to face sessions covering the following topics:

1. Introduction, overview, risk appraisal
2. Exercise and moving about safely
3. Home hazards
4. Community safety and footwear
5. Vision and falls and vitamin D
6. Medication management and mobility mastery experiences
7. Review and plan ahead
8. 3-month booster session

Plus home-based exercises based on Otago Exercise Programme
**Stepping On program evaluation**


NSW Ministry of Health has funded the implementation of the *Stepping On* program across NSW Local Health Districts as a key falls prevention initiative since late 2008.

N= 310, aged 70+ years
31% reduction in falls
Study aims

What is the impact of Stepping On when delivered in the ‘real world’?

a) To document ongoing participation in evidence-based fall prevention interventions and behaviours in Stepping On participants six months after program completion

b) To determine barriers and enablers to ongoing participation in fall prevention interventions and behaviours
Methods

**Design:** Pre-post survey

**Participants:** People who commenced *Stepping On* in 2015 and 2016

**Recruitment method:** Study information provided to new participants at first or second session by *Stepping On* program leader, follow-up by research staff

**Study measures:**
1. Baseline questionnaire at commencement of *Stepping On*
2. Follow-up questionnaire 6 months post completion of *Stepping On*
   - Questions about current fall prevention behaviours
   - *Falls Behavioural Scale (FaB)*- validated tool to assess day-to-day actions that increase risk or offer protection from falling
   - *Incidental and Planned Exercise Questionnaire (IPEQ)*- physical activity
   - Barriers to uptake of fall prevention behaviours
Results

PARTICIPANTS

- n=458, 345 (75%) females, mean age 77 (SD 6.7)
- 121 (26%) born overseas
  - UK- 11%
  - Netherlands- 2%
  - New Zealand- 2%
  - Italy- 1%
  - Plus 30 other countries
- 268 (59%) fallen in past year
- 305 (67%) attended Stepping On program in metropolitan LHD
- 291 (64%) completed follow-up
- Missing data: unable to contact (149), illness/death (8), other (6)
Results- impressions of program

• 251 (86%) completed the Stepping On program
• 284 (98%) said it increased awareness of falls
• 190 (65%) felt increased independence
• 285 (98%) would recommend program to others
## Results - ongoing interventions and behaviour

<table>
<thead>
<tr>
<th>Strategies used to prevent falls</th>
<th>Baseline N=291</th>
<th>Follow up N=291</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regular strength and balance exercises</td>
<td>77 (26%)</td>
<td>218 (75%)**</td>
</tr>
<tr>
<td>Cataract surgery</td>
<td>125 (43%)</td>
<td>33 (11%)</td>
</tr>
<tr>
<td>Safe walking strategies</td>
<td>152 (52%)</td>
<td>233 (80%)*</td>
</tr>
<tr>
<td>Improved lighting in the home</td>
<td>65 (22%)</td>
<td>62 (21%)</td>
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<tr>
<td>Improved home environment safety</td>
<td>129 (44%)</td>
<td>111 (38%)</td>
</tr>
<tr>
<td>Medication review by GP or pharmacist</td>
<td>83 (29%)</td>
<td>69 (24%)</td>
</tr>
<tr>
<td>Vitamin D supplement</td>
<td>158 (54%)</td>
<td>87 (30%)</td>
</tr>
<tr>
<td>Checked shoes and slippers to ensure safe</td>
<td>209 (72%)</td>
<td>215 (74%)</td>
</tr>
</tbody>
</table>

**p<0.001
*p<0.05
Results - change in FaB and IPEQ

Falls Behavioral Scale (FaB), score out of 4

*Baseline*: mean 2.9 (0.5)  
*Follow-up*: mean 3.1 (0.4)  
\( p < 0.001 \)

Physical activity (IPEQ)

*Structured exercise, hrs/week*  
*Baseline*: mean 2.0 (3.3)  
*Follow-up*: mean 4.0 (4.7)  
\( p < 0.001 \)

*Total activity, hrs/ week*  
*Baseline*: mean 28.6 (18.3)  
*Follow-up*: mean 29.7 (19.4)  
\( p = 0.3 \)
Results - barriers and motivators

Barriers to exercise
- ill health
- cost/availability
- transport
- identifying suitable programs
- caring responsibilities

Factors that would motivate to exercise
- advice from doctor
- low cost, local program
- more energy
Summary

- High level of acceptability and satisfaction with the program

- Significant impact on some important fall prevention behaviours six months after program completion:
  - participation in regular strength and balance exercises
  - in use of safe walking strategies

Stepping On appears to have an impact when delivered in the ‘real world’
Acknowledgements

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• **Project Officer**: Kate Purcell
• **Study participants**

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