A pilot study evaluation the LiFE program as a falls prevention strategy for older people with vision impairments

Lisa Keay, Lisa Middlemiss, Jacqueline Johnson, Hayley Tumanik, Jessica Taylor, Freya Saich, Lindy Clemson, Jo Munro, Ewa Borkowski, Desiree Gallimore, Frances Tinsley
Background

- People with poor vision are 2-8 times more likely to fall
- There are no proven physical interventions to reduce falls in this population demographic
- 50,000 Australians are blind & 480,000 are visually impaired

Growing demographic (double by 2024)
The major causes of vision loss are age-related

Ivers 1998, Taylor 2005
Mechanism for increased falls risk

- Types of vision loss associated with falls
- Epidemiologic studies –
  - Identify poor physical function (Lamoureux et al 2010) and combination of vision loss with poor balance (Kulmala 2008)
- Systematic review found four eligible trials (n=522): improvements in physical function in residential aged care settings, limited data in community(Gleeson et al 2014)
Aim

To determine if the LiFE program could be adapted and delivered to older people with vision impairments
LiFE program

- **Lifestyle integrated Functional Exercise (LiFE) Developed for high risk populations**
  
  Clemson et al 2010

- **Demonstrated to reduce falls (IRR 0.69, 95% CI 0.48-0.99)**
  
  Clemson et al, 2012
Pilot study (n=16)

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<tr>
<td><strong>Age</strong></td>
<td>70±15 (range 51-92)</td>
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<td><strong>Gender</strong></td>
<td>2 males, 14 females</td>
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<td><strong>Education</strong></td>
<td>6 (year 10), 2 (year 12), 8 (higher)</td>
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<td><strong>Housing</strong></td>
<td>8 home, 3 independent living unit, 5 unit</td>
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<td><strong>Live alone</strong></td>
<td>11/16 (69%)</td>
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<td><strong>Mobility aids</strong></td>
<td>12 long cane, 5 mini-guide, 2 guide dogs, 3 support cane</td>
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<td><strong>Falls</strong></td>
<td>13/16 had fallen in last year (1 fracture)</td>
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<td><strong>BMI</strong></td>
<td>29.9±8.5 (range 18-45): 4 overweight, 7 obese</td>
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Fear of falling

- **Lower score – not worried (minimum 7, maximum 28)**
  
  Baseline: 14.3 ± 5.3 (7-23)
  
  Post program: 11.1 ± 4.9 (7-26), p=0.04
LiFE activities
Summary

- The LiFE program was successfully delivered to this high risk group
- Small sample size but indicated some benefits, larger study required to determine if falls can be prevented

Thank-you for your attention