Are informal carers and community care workers effective in managing malnutrition in the older adult community? A systematic review of current evidence

Skye Marshall, *University of Queensland*
Judith Bauer, *The University of Queensland*
Sandra Capra, *University of Queensland*
Elisabeth Isenring, *University of Queensland*
Are informal carers and community care workers effective in managing malnutrition in the older adult community?

A systematic review of current evidence
J Nutr Health Aging, May 2013

Skye Marshall
PhD scholar UQ, CDIET R
Skye.Marshall@uq.net.au

Judy Bauer (Supervisor)
Sandra Capra
Liz Isenring (Primary supervisor)
Population Aging

The median age of the Australian, Canadian and American populations from 1950 to 2100 (UN World Population Prospects, 2010 revision)
Malnutrition

Food and nutrient intake is unable to meet requirements

↓ body weight  ↑ Institutionalisation
↓ body composition  ↑ Hospital admissions
↓ physical function  ↑ Mortality

>10 – 30% Community

Watterson et al., 2009; Elia & Stratton, 2005
Community Care Delivery

Increased demand + $955.4m = Independent Living

Workforce Pressures + 64 200 home care packages = Non-clinical community care workers & informal carers

**AIM**

“To investigate the impact of nutritional interventions delivered to or by informal carers and non-clinical community care workers on malnutrition-related health outcomes of community-dwelling older adults.”

**Databases**
- CENTRAL
- CINAHL
- EMBASE
- Health Source: Nursing/Academic Edition
- PubMed
- Web of Science

**Nutrition Interventions to:**
- A. Informal carers
- B. Non-clinical community care workers

✓ Aimed to improve the health of the community-dwelling older adult
<table>
<thead>
<tr>
<th>Author</th>
<th>Country</th>
<th>Study Design</th>
<th>Setting</th>
<th>Outcome</th>
<th>Study Type</th>
<th>Intervention</th>
<th>Staff Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kurz, et al. 2010</td>
<td>Austria, Switzerland, Germany</td>
<td>RCT - II</td>
<td>Dementia</td>
<td>Unclear</td>
<td>II</td>
<td>+</td>
<td></td>
</tr>
<tr>
<td>Lauque, et al. 2004</td>
<td>France</td>
<td>RCT - II</td>
<td>Dementia</td>
<td>12%</td>
<td>II</td>
<td>+</td>
<td></td>
</tr>
<tr>
<td>Masud, Rana, et al. 2009</td>
<td>Bangladesh</td>
<td>RCT - II</td>
<td>Older adults and their families</td>
<td>18.6%</td>
<td>II</td>
<td>+</td>
<td></td>
</tr>
<tr>
<td>Salva, et al. 2011</td>
<td>Spain</td>
<td>RCT - II</td>
<td>Dementia</td>
<td>31%</td>
<td>II</td>
<td>+</td>
<td></td>
</tr>
<tr>
<td>Riviere, et al. 2001</td>
<td>France</td>
<td>Non-randomized experimental trial: Controlled before-and-after study</td>
<td>Dementia</td>
<td>5%</td>
<td>III-2</td>
<td>Ø</td>
<td></td>
</tr>
<tr>
<td>Laforest, et al. 2007</td>
<td>Canada</td>
<td>Pilot case-series: post-test</td>
<td>Older adult nutrition volunteers and older adult care recipients</td>
<td>17% (care recipients)</td>
<td>IV</td>
<td>Ø</td>
<td></td>
</tr>
<tr>
<td>Leggo, et al. 2008</td>
<td>Australia</td>
<td>Case series: pre-test/post-test</td>
<td>HACC eligible older adults and HACC providers</td>
<td>40% receiving intervention (n=57)</td>
<td>IV</td>
<td>Ø</td>
<td></td>
</tr>
<tr>
<td>Toseland, et al. 2004</td>
<td>USA</td>
<td>RCT - II</td>
<td>Informal carers (spouses) of frail older adults</td>
<td>Unclear</td>
<td>II</td>
<td>+</td>
<td></td>
</tr>
<tr>
<td>Hyland, et al. 2006</td>
<td>UK</td>
<td>RCT - II</td>
<td>Older adults and peer community nutrition assistants</td>
<td>Unclear</td>
<td>II</td>
<td>Ø</td>
<td></td>
</tr>
</tbody>
</table>
Results: Interventions

Informal carers?
6 studies

Non-clinical care workers?
3 studies – no intervention evidence

Targeted malnutrition?
5 studies

Strategies were varied:
- Group education
- Workshops
- Social marketing
- Booklets
- Hotlines
- Action protocols
- Dietitian, allied health & physician involvement
## Findings

Significance considered at $P<0.05$

<table>
<thead>
<tr>
<th></th>
<th>Nutrition Status</th>
<th>Functional status</th>
<th>KJ + protein intake</th>
<th>Carer burden</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lauque 2004</td>
<td>↑</td>
<td>↓</td>
<td>↑</td>
<td></td>
</tr>
<tr>
<td>Salva 2011</td>
<td>↑</td>
<td>Ø</td>
<td>Ø</td>
<td>Ø</td>
</tr>
<tr>
<td>Riviere 2001</td>
<td>Ø</td>
<td>Ø</td>
<td>Ø</td>
<td>Ø</td>
</tr>
<tr>
<td>Laforest 2007</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Leggo 2008</td>
<td>↑</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Implications for future research

- **Australian** studies

- **General** older population

- Interventions by non-clinical *care workers*

- Measure: *validated* tools, *quality of life*
Thank you

Questions?