Model of care to address malnutrition among community living older adults receiving care from a home nursing service in Victoria, Australia

Georgina Rist (APD, AN)
Dr Gail Miles, Dr Leila Karimi

Helen Macpherson Smith Institute of Community Health
grist@rdns.com.au
Acknowledgments

• The H & L Hetch Trust and the Morris Family Trust through Perpetual Trustees – Funding body

• Royal District Nursing Service (RDNS) Nursing staff and clients

• Study reference group

• Home and Community Care (HACC) services provided by RDNS are jointly funded by the Victorian and Australian Governments
Background
Australian Population

• In 2006 2.7 million Australians (13%) were ≥65 years. \textit{AIHW 2006}
  • Projected to more than double over the next 30 years to 6.3 million (24% of the population)

• Ageing population
  • Implications on malnutrition rates and the costs associated with poor nutrition
Background
Malnutrition

• No universal definition of malnutrition
• No agreed standard for diagnosis
• Reported Prevalence rates vary due to:
  • Assessment criteria
  • Population
  • Setting/environment
  • Timing of the assessments
Background
Malnutrition Prevalence in the community

- Older adults living in the community are not routinely screened for malnutrition

<table>
<thead>
<tr>
<th>Setting</th>
<th>International data (People accessing care)</th>
<th>Australian data (Older adults)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Community</td>
<td>&gt;10% Stratton et al 2003</td>
<td>5% Visvanathan 2003</td>
</tr>
<tr>
<td></td>
<td></td>
<td>30% Lipski 2005</td>
</tr>
<tr>
<td></td>
<td></td>
<td>80% goes undetected in older people Lipski 2005</td>
</tr>
</tbody>
</table>
Malnutrition Prevalence among older adults receiving care from a home community nursing service in Victoria

And…
A Nutrition model of care to address it
Malnutrition Prevalence Study (n = 235)

Results

- 57.7% (n=135) No risk
- 34.6% (n=81) At Risk
- 8.1% (n=19) Malnourished

Nutritional status classification

Nutrition model of care
Community Nursing environment

NURSE

DIETITIAN

Promoting & improving nutritional status in older people living in the community

General Practitioner/Doctor

COMMUNITY SERVICES
eg. Meals on wheels, nutrition programs
Nutrition Model of care
Overview

Nutritional Screening (MNA-SF®)

≥12
Normal

≤11
Possible malnutrition

Nutritional assessment (Full MNA®)

<17
Malnourished

≥17
At risk of malnutrition
Nutritional Screening (MNA-SF®)

- ≥12: Normal
  - Provide healthy eating information

- ≤11: Possible malnutrition
  - Nutritional assessment (Full MNA®)
    - <17: Malnourished
      - +/- Referral to dietitian (APD)
      - Liaise with GP
      - Intervention as per nutrition care plan & guidelines
    - ≥17: At risk of malnutrition
      - Referral to Intervention as per nutrition dietitian (APD) care plan & guidelines
      - Liaise with GP
Nutritional Screening (MNA-SF®)

- ≥12: Normal
- ≤11: Possible malnutrition

Provide healthy eating information

Re-screen 6 monthly

Nutritional assessment (Full MNA®)

- <17: Malnourished
- ≥17: At risk of malnutrition

Intervention as per nutrition care plan & guidelines

Liaise with GP

Monitoring + weights + MAC

++/− Referral to dietitian (APD)
Resources Accompanying the model of care

- Client Information materials/sheets
- Client care plan & guidelines
- Guide to using the MNA®
- Anthropometric ready reckoner
- Nutritional intervention and oral supplement decision tree flow chart
- Dietitian referral guide
- Nutrition support Intranet site
Nutrition model of care evaluation

Method

Sample
- Recruited from the initial prevalence sample
- Ethics approval obtained

Intervention
- Nurse education program
- Model of care

Assessments/Outcome measures
- Height, Weight, Mid arm Circumference (MAC)
- Body Mass Index (BMI)
- Malnutrition was identified using the Mini Nutritional Assessment (MNA®)
  1. On admission
  2. Three months later
## Nutrition model of care evaluation

**n = 50**

<table>
<thead>
<tr>
<th>Participant characteristics</th>
<th>Re screening</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Age (years) (Mean, SD)</strong></td>
<td></td>
</tr>
<tr>
<td>Ranges</td>
<td>82.2 (7.0)</td>
</tr>
<tr>
<td></td>
<td>65 - 100</td>
</tr>
<tr>
<td><strong>Gender (n = 49)</strong></td>
<td></td>
</tr>
<tr>
<td>• Male</td>
<td>22 (44.9%)</td>
</tr>
<tr>
<td>• Female</td>
<td>27 (55.1%)</td>
</tr>
<tr>
<td><strong>Financial Status (n = 47)</strong></td>
<td></td>
</tr>
<tr>
<td>• Pensioner</td>
<td>41 (87.2%)</td>
</tr>
<tr>
<td>• DVA</td>
<td>6 (12.8%)</td>
</tr>
<tr>
<td><strong>Country of Birth (n=49)</strong></td>
<td></td>
</tr>
<tr>
<td>• Australia</td>
<td>29 (59.2%)</td>
</tr>
<tr>
<td>• Overseas</td>
<td>20 (40.8%)</td>
</tr>
<tr>
<td><strong>Language Spoken (n = 37)</strong></td>
<td></td>
</tr>
<tr>
<td>• English</td>
<td>37 (74.0%)</td>
</tr>
<tr>
<td>• Other</td>
<td>13 (26.0%)</td>
</tr>
<tr>
<td><strong>Living Arrangement (n = 46)</strong></td>
<td></td>
</tr>
<tr>
<td>• Living with family/others</td>
<td>21 (45.7%)</td>
</tr>
<tr>
<td>• Living alone</td>
<td>25 (54.3%)</td>
</tr>
</tbody>
</table>
Results
Nutrition Model of care evaluation

Initial 3 months Nutrition Assessment
Not at Risk
At risk/ malnourished

Results
Nutrition Model of care evaluation

Nutritional Assessment

Initial 3 months

P-value <0.05
Limitations

- Small sample size
Recommendations

1. Need for a larger Australia wide malnutrition prevalence study among older adults living in the community

2. Health professionals and service providers implement and use a validated nutrition screening and assessment tool such as the MNA®

3. Health services ensure strategies are in place to address malnutrition in the community – e.g. this model of care
The time to change is NOW

‘Healthy Ageing’ requires good nutritional status to optimise health and quality of life.

Malnutrition is out there, it is not a new problem and we need to act on it now!
“Malnutrition is not a consequence of ageing and it should not be allowed to persist as though it were a ‘normal’ process”


Thank you

Contact details:
Georgie Rist
georgie.rist@rdns.com.au