What are the risk factors for loneliness in a longitudinal cohort of older Māori and non-Māori

COMPASS Colloquium 2018


This research has been made possible by a generous bequest from Dr Jeanette Crossley. We honour her lived experience, her courage in adversity, and her compassion in helping others.
Acknowledgements

- Dr Jeanette Crossley (Fellowship)
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  - LiLACS NZ (HRC, Ministry of Health, Rotorua Energy Charitable Trust, Ngā Pae o te Māramatanga, Oakley Mental Health Research Foundation, Heart Foundation)

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Outline

- Overview
  - Background
  - Our research question
- Methods, data source – LiLACS
- Results
- Conclusion
- Questions
Background: What is loneliness?

- The gap between the social relationships we have and what we want
  - perceived social isolation (*socially isolated may have higher risk*)
- Affects all ages from young to old
- Detrimental consequences for health and well-being of the individual (and the community)
  - e.g. poor mental & physical health, cognitive decline, premature mortality, lower quality of life, and worse social & economic outcomes
- Of policy concern, e.g. UK ‘Campaign To End Loneliness’, and Minister for Loneliness
Research question

- What are the ‘modifiable’ risk factors for loneliness in older people living in New Zealand?

  - Important for designing interventions
LiLACS NZ

- To learn about issues related to wellbeing in advanced age

- Bicultural cohort of older people followed 2010-15

- All Māori aged 80-90, & non-Māori aged 85, living in Bay of Plenty & Lakes DHB areas invited to participate

- Wave 1, n=937: 421 Māori & 516 non-Māori
Loneliness at baseline (2010 - Wave 1)

Would you say that you:
Always / often / sometimes / never feel lonely

- 5.1% of Māori and 5.5% of non-Māori reported always/often feeling lonely
- 39.8% of Māori and 28.1% of non-Māori reported always/often/sometimes being lonely – statistically significant difference
- Working definition: Lonely / Not lonely
Loneliness: Conceptual framework

Risk factor domains
(Socio-demographic)
Standard of living
Psychosocial attitudes
Health factors
Social connectedness

Loneliness

Successful aging outcomes
Quality of life
Health

LiLACS – wealth of information – extensive list of variables identified based on literature – then selected by statistical significance – may have missed important variables due to small sample sizes
Results

Separate analyses for Māori and non-Māori …

1. Loneliness levels - by socio-demographics

2. Loneliness levels - by significant risk factors (chi-square, p<0.05) for either Māori or non-Māori

1. Each risk factor for loneliness – odds ratio adjusted for socio-demographics (logistic regression)
## Loneliness levels – by socio-demographics

<table>
<thead>
<tr>
<th>Sociodemographics</th>
<th>Non-Māori (% lonely)</th>
<th>Māori (% lonely)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Gender</strong>: Male</td>
<td>25.0</td>
<td>38.0</td>
</tr>
<tr>
<td>Female</td>
<td>31.0</td>
<td>40.9</td>
</tr>
<tr>
<td><strong>Highest ed. qual</strong>: None/Primary</td>
<td>29.0</td>
<td>45.8</td>
</tr>
<tr>
<td>Secondary</td>
<td>26.5</td>
<td>36.7</td>
</tr>
<tr>
<td>Post-secondary</td>
<td>28.1</td>
<td>37.8</td>
</tr>
<tr>
<td><strong>Main family occupation</strong>: Prof’l.</td>
<td>27.4</td>
<td>38.7</td>
</tr>
<tr>
<td>Technical/trade</td>
<td>30.6</td>
<td>35.6</td>
</tr>
<tr>
<td>Other</td>
<td>27.6</td>
<td>42.7</td>
</tr>
<tr>
<td><strong>Marital status</strong>: Partnered</td>
<td>14.2 *</td>
<td>26.5 *</td>
</tr>
<tr>
<td>Widowed</td>
<td>42.4</td>
<td>45.7</td>
</tr>
<tr>
<td>Sep’d/div’d/never partnered</td>
<td>20.6</td>
<td>47.1</td>
</tr>
<tr>
<td><strong>Retired from paid work</strong>: No</td>
<td>30.3</td>
<td>21.4 *</td>
</tr>
<tr>
<td>Yes</td>
<td>27.3</td>
<td>43.4</td>
</tr>
</tbody>
</table>
Loneliness levels – by significant risk factors

DOMAINS

- Standard of living
- Psychosocial attitudes
- Health factors
- Social connectedness
Standard of living (last 12 months)

- Economising behaviours
  - gone without fresh fruit/veges
  - put off buying clothes
  - stayed in bed longer
  - put off visits to doctor
  - spent less time on hobbies

- Food insecurity
  - eat less
  - limited variety of food

Any: Yes/no
Either: Yes/no
Economising behaviours

AB2_m=Non-Maori

PERCENT

76.18%  54.41%

lonely  lonely

23.84%  45.59%

no  yes  kb_binary

AB2_m=Maori

PERCENT

61.20%  55.88%

lonely  lonely

38.80%  44.12%

no  yes  kb_binary
Food insecurity

AB2_m=Non-Maori

PERCENT
100

73.7%
50.0%
26.3%

lonely
no

lonely
yes

AB2_m=Maori

PERCENT
100

60.96%
25.00%
39.04%
75.00%

lonely
no

lonely
yes

loneli
yes
no
Psycho-social attitudes

- Growing older has been positive or negative experience?
Growing older has been positive or negative experience?

**AB2_m=Non-Maori**

- Positive: 75.68%
- Neutral: 70.77%
- Negative: 41.67%

**AB2_m=Maori**

- Positive: 60.19%
- Neutral: 63.89%
- Negative: 50.00%

**w1ma2_cat**

- Lonely: 24.32%
- Yes: 29.23%
- No: 58.33%

- Lonely: 39.81%
- Yes: 36.11%
- No: 50.00%
Health factors

- Experiencing pain on average (yes/no)
- Number of comorbidities (0-3, 4-5, 6-19)
Experiencing pain

AB2_m=Non-Maori

PERCENT
100
90
80
70
60
50
40
30
20
10
0

79.44% lonely
31.65% lonely
20.56% lonely

AB2_m=Maori

PERCENT
100
90
80
70
60
50
40
30
20
10
0

67.47% lonely
32.53% lonely
44.27% lonely

lonely
yes
no
Number of comorbidities

AB2_m=Non-Maori

<table>
<thead>
<tr>
<th>PERCENT</th>
<th>0-3</th>
<th>4.5</th>
<th>6.19</th>
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<td>17.00%</td>
<td>27.59%</td>
<td>35.95%</td>
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Social connectedness

- Who do you live with?
- Eat one or more meals a day with someone?
- Past week, how often engage in moderate sport or recreational activities?
- How much time do you spend alone?
Who do you live with?

**AB2_m=Non-Maori**

- Spouse/spouse+: 11.83%
- Children/others: 17.14%
- Alone: 44.33%

**AB2_m=Maori**

- Spouse/spouse+: 72.09%
- Children/others: 62.90%
- Alone: 49.06%

[Graph showing percentage distribution of living arrangements for Non-Maori and Maori students.]
Eat one or more meals a day with someone?

For AB2_m=Non-Maori:
- Often/always: 84.33%
- Sometimes: 64.52%
- Never/rarely: 53.45%

For AB2_m=Maori:
- Often/always: 69.12%
- Sometimes: 50.00%
- Never/rarely: 48.28%
Past week, how often engage in moderate sport or recreational activities?
How much time do you spend alone? *(isolated=always/often)*

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<tr>
<td>PERCENT</td>
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</tr>
<tr>
<td>87.89%</td>
<td>68.92%</td>
</tr>
<tr>
<td>57.21%</td>
<td>48.11%</td>
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- **Isolated**: 12.11% vs. 31.08%
- **Not Isolated**: 87.89% vs. 68.92%

**Legend**:
- **lonely**
- **yes**
- **no**
Do you use the internet?
NB 31% of Non-Māori, 14% of Māori
Results

Separate analyses for Māori and non-Māori …

1. Loneliness levels - by socio-demographics

2. Loneliness levels - by significant risk factors (chi-square, p<0.05) for either Māori or non-Māori

3. What happens when each risk factor is adjusted for socio-demographics (using logistic regression)?
Risk factors for loneliness – adjusted for socio-demographics

Non-Māori

- Food insecurity: OR (95% CI) 5.68 (1.74-18.52)
- Isolated (always-often alone): OR (95% CI) 4.14 (2.16-7.96)
- No. of comorbidities (hi vs lo): OR (95% CI) 3.27 (1.64-6.49)
- Economising behaviour: OR (95% CI) 2.39 (1.32-4.33)
- Experiencing pain: OR (95% CI) 1.87 (1.00-3.50)
- Engage in moderate sport/recreation: OR (95% CI) 0.40 (0.19-0.84)
- Eat meal with someone daily: OR (95% CI) 0.38 (0.18-0.79)
- Growing older is positive experience: OR (95% CI) 0.18 (0.08-0.40)
- Living with spouse (vs alone): OR (95% CI) 0.10 (0.03-0.35)
Risk factors for loneliness – adjusted for socio-demographics

- Food insecurity: OR (95% CI) 3.23 (0.76-13.65)
- Isolated (always-often alone): OR (95% CI) 2.24 (1.22-4.14)
- No. of comorbidities (hi vs lo): OR (95% CI) 0.99 (0.49-1.99)
- Economising behaviour: OR (95% CI) 1.07 (0.58-1.97)
- Experiencing pain: OR (95% CI) 1.52 (0.82-2.83)
- Engage in moderate sport/recreation: OR (95% CI) 0.87 (0.46-1.63)
- Eat meal with someone daily: OR (95% CI) 0.45 (0.21-0.96)
- Growing older is positive experience: OR (95% CI) 0.55 (0.14-2.26)
- Living with spouse (vs alone): OR (95% CI) 0.63 (0.16-2.53)
Risk factors for loneliness – adjusted for socio-demographics

Living with spouse (vs alone)
Growing older is positive experience
Eat meal with someone daily
Engage in moderate sport/recreation
Experiencing pain
Economising behaviour
No. of comorbidities (hi vs lo)
Isolated (always-often alone)
Food insecurity
Next steps

- Longitudinal analysis of risk factors – e.g. ‘fixed effects’ regression – controlling for time-invariant factors – change in risk factor associated with change in loneliness?

- What are the consequences of loneliness, e.g. quality of life, health (preliminary analyses show worse for the lonely)
Conclusion

- Similar risk factors for both Māori and non-Māori (in the same direction), though larger effects for non-Māori
- Māori - smaller sample size – lower power to find an effect
- Non- Māori - effects persist after adjusting for socio-demographics, though attenuated
- Policy implications?
  - Findings support the literature
  - Indicate interventions to promote: better material conditions, positive attitudes to ageing, better health, improved social connection and opportunity for participation … successful ageing
Questions
Email: r.layyee@auckland.ac.nz

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