Social connection in residents of long-term care homes: mental health impacts and strategies during COVID-19

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“The Relationship Between Social Connectedness and Mental Health for Residents of Long-term Care Homes: Knowledge Synthesis and Mobilization”

Jennifer Bethell, Katelynn Aelick, Jessica Babineau, Monica Bretzlaflf, Cathleen Edwards, Josie-Lee Gibson, Debbie Hewitt Colborne, Andrea Iaboni, Dee Lender, Denise Schon, Katherine McGilton
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BACKGROUND: Social connection is an important health issue for LTC homes

SOCIAL CONNECTION\(^1\)
An umbrella term that encompasses the structural, functional, and quality aspects of how individuals connect to each other

SOCIAL NETWORK\(^2\)
The web of social relationships that surround an individual and the characteristics of those ties

SOCIAL SUPPORT\(^{1,2}\)
The actual or perceived availability of resources (e.g., informational, tangible, emotional) from others, typically one's social network

SOCIAL ENGAGEMENT\(^2\)
Enactment of potential ties in real life activity, typically with one's social network e.g., getting together with friends, attending social functions, participating in occupational roles

SOCIAL CONNECTEDNESS\(^3\)
The opposite of loneliness, unlike other aspects of social connection, it is a subjective evaluation of the extent to which one has meaningful, close, and constructive relationships with others

BACKGROUND: Social connection is an important health issue for LTC homes

In long-term care (LTC) homes, social connection is key to:
- Resident quality of life\(^1\)
- Person-centred care\(^2-4\)

Social connection is associated with better health (for everyone!)\(^5\) – possibly explained by:\(^6\)
- Health-related behaviors/lifestyle
- Instrumental support
- Stress-buffering
- Biological mechanisms (e.g., chronic inflammation)

…but most research in this area is **not** from LTC homes

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**BACKGROUND:** Social connection is an important health issue for LTC homes

Social connection has specific considerations for LTC homes, e.g.,

- **Residents:** mostly older adults, many with vision or hearing loss, cognitive impairment,¹ and mobility impairment which can impact social connection²
- **Families:** a range - many provide vital social support (e.g., participating in care)³ whereas some residents are “unbefriended” (incapacitated and have no surrogate decision maker)⁴
- **Staff:** provide daily support to residents
- **Homes:** communal setting (e.g., meals, group activities)
- **Communities:** community organisations and care professionals participate the life of the home

**LTC residents are a population with unique needs and opportunities for building and maintaining social connection**

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¹ Ontario Long Term Care Association, 2019 | ² Moyle W et al, 2011 | ³ Puurveen G et al, 2018 | ⁴ Chamberlain et al, 2019
BACKGROUND: Social connection is an important health issue for LTC homes

Limited research evidence on social connection in LTC, e.g.,:

- **Mikkelsen et al (2019):** 10 “social intervention” studies; limited and very diverse evidence, but good potential
- **Quan et al (2019):** 15 (loneliness) intervention studies in past 10 years
- **Brimelow & Wollin (2017):** 15 (loneliness or social network) intervention studies since 1995
- **Victor (2012):** “This review failed to identify compelling evidence for the effectiveness of interventions to remediate loneliness in care home populations”
METHODS: A scoping review on social connection in LTC homes

Conducted a 6-stage scoping review\(^1,2\)
Developed and executed a detailed search strategy:\(^3\)
- MEDLINE(R) ALL, CINAHL (EBSCO), PsycINFO (Ovid), Scopus, Sociological Abstracts (Proquest), Embase and Embase Classic (Ovid), Emcare Nursing (Ovid) and AgeLine (EBSCO)
- From databases’ inception to July 2019 (i.e., pre-COVID)

Included published journal articles that reported:
- Observational or intervention (randomized, non-randomized) studies
- A quantitative measure of social connection in a population of adult residents of LTC homes, nursing homes or care homes\(^4\)

Did not conduct any critical appraisal/assessment of study quality
Study selection and data extraction conducted in duplicate

METHODS: A scoping review on social connection in LTC homes

Our team was funded by CIHR (May 2020) through Knowledge Synthesis: COVID-19 in Mental Health and Substance Use grant

Our scoping review questions:
1. What mental health outcomes are associated with social connection for people living in LTC homes?
2. What interventions/strategies might support social connection for people living in LTC homes in the context of infectious disease outbreaks like COVID-19?

We collected examples from across Ontario, including a Behavioural Supports Ontario survey.
Q1: studies that reported the association between social connection and mental health outcome

Q2: Studies that reported association between a modifiable risk factor(s) and social connection or the results of intervention study whereby the outcome was social connection

Q2: The study team then identified strategies that were seen to be potentially quick and relatively low-cost to implement and adapt by LTC residents, families, and staff in the COVID-19 pandemic

RESULTS:
Summary of studies included in the review
RESULTS: Summary of research studies included in the review

<table>
<thead>
<tr>
<th>Study Characteristics</th>
<th>Question 1 (N=61)</th>
<th>Question 2</th>
<th>Total (N=133)</th>
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<td></td>
<td>n</td>
<td>%</td>
<td>n</td>
</tr>
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<td>1990-1999</td>
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<td>2000-2009</td>
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<td>2010-2019</td>
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<td>Europe</td>
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<td>18</td>
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<td>North America</td>
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<td><strong>Study design</strong></td>
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<td>Cohort</td>
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<tr>
<td>250-499</td>
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<td><strong>Aspect(s) of social connection</strong></td>
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<td>Loneliness</td>
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<td>Social capital</td>
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<td>Social engagement</td>
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<td>Social relations</td>
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</tr>
<tr>
<td>Social support</td>
<td>26</td>
<td>43</td>
<td>1</td>
</tr>
<tr>
<td>Social withdrawal</td>
<td>1</td>
<td>2</td>
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</tr>
</tbody>
</table>

NA, not applicable.
*Column percentage adds to more than 100% because some studies investigated multiple aspects of social connection.

- Most published in past 10 years
- Most often from United States
- Often cross-sectional (observational) & quasi-exp. (intervention)
- Some larger (observational) studies using health admin data. Most intervention studies were small.
- Often social engagement or support (observational) or loneliness (intervention)
**RESULTS:** What mental health outcomes are associated with social connection for people living in LTC homes?

<table>
<thead>
<tr>
<th>Mental health outcome</th>
<th>Number of studies reporting:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Mental health outcome</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>Depression</td>
<td>35</td>
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<tr>
<td>Responsive behaviors</td>
<td>9</td>
</tr>
<tr>
<td>Mood, affect and emotions</td>
<td>8</td>
</tr>
<tr>
<td>Anxiety</td>
<td>3</td>
</tr>
<tr>
<td>Medication use</td>
<td>3</td>
</tr>
<tr>
<td>Cognitive decline</td>
<td>2</td>
</tr>
<tr>
<td>Death anxiety</td>
<td>2</td>
</tr>
<tr>
<td>Boredom</td>
<td>2</td>
</tr>
<tr>
<td>Suicidal thoughts</td>
<td>2</td>
</tr>
<tr>
<td>Psychiatric morbidity</td>
<td>1</td>
</tr>
<tr>
<td>Daily crying</td>
<td>1</td>
</tr>
</tbody>
</table>

*where studies report unadjusted and adjusted estimates, classified by adjusted estimates; where studies report cross-sectional and longitudinal analyses, classified by longitudinal analysis [note: some studies included multiple outcomes; total does not reflect number of studies included in review]
RESULTS: What interventions/strategies might support social connection for people living in LTC homes in the context of infectious disease outbreaks like COVID-19?

- Practical strategies collected separated based on the 12 key themes
SOME NOTES ABOUT THE STRATEGIES

1) Some of these strategies are fundamental aspects of care (e.g., pain) whereas others will not all be relevant to every LTC resident, family or home (e.g., resident's needs, values, family situation and circumstances; technology capabilities and infrastructure)

2) These strategies rely on a healthy, sustained LTC workforce
MANAGE PAIN

Observational studies 3 (of 8)

Intervention studies 4 (of 5)

Example: Screening, monitoring and treating pain

ADDRESS VISION AND HEARING LOSS

Observational studies 8 (of 8)

Intervention studies 1 (of 1)

Example: When using videoconference, check volume and screen (clean, full-screen mode), consider noise-cancelling headsets.

SLEEP AT NIGHT, NOT DURING THE DAY

Observational studies 1 (of 2)

Intervention studies 1 (of 1)

Example: Daily sunlight and physical activity; structured bedtime; decrease nighttime noise and light
FIND OPPORTUNITIES FOR CREATIVE EXPRESSION

Observational studies 0 (of 0)
Intervention studies 5 (of 5)

Example: Art, music and storytelling; individualized activity kits during isolation.

EXERCISE

Observational studies 0 (of 2)
Intervention studies 3 (of 6)

Example: Using pre-recorded, freely available online videos to assist with instructing residents in one-on-one exercise (with supervision).
MAINTAIN RELIGIOUS AND CULTURAL PRACTICES

Observational studies 2 (of 3)
Intervention studies 0 (of 0)

Example: mass organized by families with families in the parking lot, residents observing from their windows; in Indigenous LTC homes, incorporating traditional wellness practices, such as residents making cedar tea; staying connected to religious community online or by phone.

GARDEN, EITHER INDOORS OR OUTSIDE

Observational studies 0 (of 0)
Intervention studies 3 (of 5)

Example: in-room gardening and outdoor vegetable gardens.
VISIT WITH PETS

Observational studies  1 (of 1)

Intervention studies  10 (of 13)

Example: window visits with family pets (and other animals, including some bigger animals) and community-based pet-therapy

Reuters, 2020
USE TECHNOLOGY TO COMMUNICATE

Observational studies 0 (of 0)

Intervention studies 2 (of 4)

Example: facilitate videocalls, mostly using tablets, with schedules and allocated time (e.g., 45-minutes) for each resident; resident forums coordinated by Ontario Association of Residents’ Councils (OARC)

LAUGH TOGETHER

Observational studies 0 (of 0)

Intervention studies 1 (of 3)

Example: hallway happy hours; games (“kissing booth”, dry eraser markers) at window visits

REMINISCE ABOUT PEOPLE, PLACES AND EVENTS

Observational studies 0 (of 0)
Intervention studies 6 (of 7)

ADDRESS COMMUNICATION IMPAIRMENTS, COMMUNICATE NON-VERBALLY

Observational studies 5 (of 5)
Intervention studies 0 (of 0)

Example: use communication strategies (e.g., eliminate background noise and distractions, pause and give time to speak and respond, use drawings, gestures, writing and facial expressions in addition to speech); encourage letter-writing, including friendly letter program (partnership with local Alzheimer Society).
DISCUSSION: Knowledge gaps

Most of the studies linking social connection and mental health outcomes were cross-sectional
• Is social connection a risk factor or a consequence of mental health problems?

Very few studies looking at differences across subpopulations (e.g., by sex/gender, by length of time living in the home, etc.)
• Does social connection impact residents differently? How should strategies be tailored?

Intervention studies are small, typically not randomized
• But should we expect gold standard (randomized controlled trials) in this setting?

No studies conducted in the context of a pandemic or infectious disease outbreak
• COVID is new but outbreaks are not; how should LTC homes prepare?
We reviewed social connection measures together (but they are different) • We need to delineate the relationships between measures of social connection and mechanisms by which any interventions/strategies might impact social connection

We did not include studies of “social” interventions (unless the outcome was a measure of social connection) • Understanding the impact of such interventions on mental health outcomes (e.g., responsive behaviours) would strengthen evidence on mental health impacts

We limited our measures of social connection to exclude “social behavior or communication” (e.g., eye contact, facial expressions, body language) • What is the best way to measure social connection among persons with dementia?

We did not assess the quality of the studies included in our review • We started pre-COVID (and with different intentions)
DISCUSSION: Imperfect evidence

“‘All scientific work is incomplete – whether it be observational or experimental. All scientific work is liable to be upset or modified by advancing knowledge. That does not confer upon us a freedom to ignore the knowledge we already have or to postpone the action that it appears to demand at a given time’”

- Sir Austin Bradford Hill, 1965
What did we already know?
• Social connection is important to quality of life and care in LTC homes
• Social connection is associated with better health (but most of this research does not come from LTC homes)
• Social connection has distinct considerations for LTC homes

What does our study add?
• We summarized published research and showed good social connection is associated with better mental health for LTC residents
• We identified 12 strategies from published research that might help LTC staff, families and residents build and maintain social connection for LTC residents right now (during COVID-19) and to help plan for future disease outbreaks

SUMMING UP
NEXT STEPS: Coming soon....

- What LTC home- and community-level characteristics are associated with resident social connection?
- What physical health outcomes are associated with social connection for people living in LTC homes?
Thank you!
Please contact me at: Jennifer Bethell
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You can also find the paper, report and infographic at: www.encoarteam.com (where you can request free printed copies of the infographic)