ASILA case simulation prototype on cognitive, physical outcomes of frail seniors in nursing homes (CFN-funded Catalyst Grant)

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Webinar Series
March 23, 2016
Welcome
Our Webinar Format

ASILA case simulation prototype on cognitive, physical outcomes of frail seniors in nursing homes (CFN-funded Catalyst Grant)

• Our webinar series showcases CFN-supported research on frailty and late-life issues
• 20+ CFN webinars in 2016
• Webinar & slides posted on CFN website: www.cfn-nce.ca

Please note: TVN is now… Canadian Frailty Network
Research Update

• 2016 Summer Student Awards
  • Doubled to 20 awards
  • Application window closed
  • Announcement in early April

• 2015 Catalyst and Transformative Research Grants
  • Under review
  • Results announced in early April

• New, one-year 2016 Fellowships
  • Announced, posted to CFN website

• ACE Collaborative
  • Funded teams announced in late March
Q-&-A session

- Follows presentation
- Submit your Qs online during presentation
- We will answer as many Qs as time permits
- Webinar is recorded and available for viewing online within 1-2 days
ASILA case simulation prototype on cognitive, physical outcomes of frail seniors in nursing homes (CFN-funded Catalyst Grant)

- Completed doctoral work at University of Toronto on nurse-patient relationships; post-doctoral fellowship at Toronto Rehabilitation Institute
- CIHR Schlegel Research Chair in Seniors Care (Research Institute of Aging: University of Waterloo and Conestoga College)
- Assistant Clinical Professor in School of Nursing (McMaster University)
- Adjunct Professor at School of Public Health and Health Systems (University of Waterloo)
- Research interests: evidence-based care in gerontology, curriculum development of gerontological education for healthcare professionals, and infection control practices
The Applied Simulated and Integrated Learning Approach (ASILA) Program for LTC

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Acknowledgements

1. Canadian Frailty Network - 2013 Catalyst Grant Program (CAT2013-47)
2. Canadian Institutes of Health Research: College and Community Innovation Program-Industrial Research Chairs for Colleges Grant
Learning Objectives

1. To demonstrate the Applied Simulated and Integrated Learning Approach (ASILA) program, an innovative and integrated pedagogical approach for knowledge transfer to unregulated care staff in long-term care (LTC) settings.

2. To identify the role of unregulated care staff in the complex care management, communication and documentation for LTC residents with complex needs.

3. To explain the importance of each team member’s role in proper monitoring, assessing, treating and documenting symptoms and the trajectory of chronic disease(s).
Background

• A rapidly increasing need to care for seniors requiring complex care in long-term care (LTC) settings.
• Pressure on the care capacity in these organizations.
• The majority of these workers are registered nursing and unregulated healthcare staff.

(Living Longer, Living Well, MOH&LTC, 2012)
Background

- Insufficient geriatric content in Canadian health care education.
- Serious concerns that staff do not have adequate knowledge to assess, plan, provide and document care.
- This deficit is especially acute in LTC settings with negative consequences for seniors.

(Living Longer, Living Well, MOH&LTC, 2012)
Applied Simulated and Integrated Learning Approach (ASILA) Program

• Improve targeted clinical outcomes for seniors through the use of evidence-informed case simulations.
• Focus on areas of frail seniors with cognitive and physical challenges.
• Each module includes the use of a *Cognitive Geriatric Assessment* (CGA) and the use of appropriate MDS assessment tools and quality improvement framework.
Research Questions

1) What is the feasibility of the ASILA program?

2) What are the effects of the ASILA Program on the quality of care for seniors in LTC settings.
Design and Methods

• A one group mixed quantitative and qualitative repeated measures pilot design.

• Sample: 2 LTC facilities (10 staff and 3 trainers each), 20 seniors per facility.

• Pre and post data collection
  • One week prior
  • Immediately following the training
  • 3 months following the training
Intervention

- 3 interactive evidence-informed simulated case scenarios focused on the management of specific care deficits:
  - Heart failure
  - Accelerated functional decline
  - Impaired cognition and behaviours
- All ASILA modules were pilot tested for their effectiveness with a convenience sample of five NAs and necessary refinements were made.
Intervention

• Use of assessment scales to conduct a Comprehensive Geriatric Assessment (CGA) and Clinical Action Protocols (CAPs) to facilitate care planning.

• A “train the trainer program” and a training and evaluation plan to integrate these scenarios for impactful learning.
Outcome Measures

**Staff:** Demographics, satisfaction surveys, intent to change, geriatric and MDS knowledge and clinical proficiency.

**Residents:** interRAI MDS 2.0 instruments
- Cognitive Performance Scale;
- Activities of Daily Living Scale
- Depression Rating Scale
- Changes in Health, End-Stage Disease, Signs, Symptoms Scale
- Pain Scale

**Program:** Development cost; implementation cost, staffing replacement cost.
interRAI MDS 2.0

The RAI MDS 2.0 …

- Standardizes the assessment process
- Software supported assessment tools
- Gives a comprehensive picture of the resident
- Yields information to plan quality care to:
  - Improve function
  - Maintain function
  - Minimize decline
interRAI MDS 2.0

Resident Assessment Protocols (RAPs)

• Guide the care plan to reduce a person’s risk of decline or increase his or her potential for improvement
• Once an assessment is completed, the software generates a list of potential problem areas

Outcome Scales

• Summarize clinical and functional status of residents
• Establish a baseline for evaluating and tracking changes over time
Demonstration - Video

Conestoga TVN Modules_ Heart Failure-SD.mp4
Team Demographic Data

NA Participants

- 76% - 85% female
- 70% - 84.6% employed as NAs
- 60% - 61.5% obtained certificate through schooling
- Average age of 41 years
- Average of 8 years work experience (4.6-9.6 years at current facility)
Team Knowledge and Perspectives

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Baseline Test</th>
<th>Immediate Post-Test</th>
<th>3-Months Test</th>
<th>β Estimate (Standard Error)</th>
<th>p-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Geriatric nursing knowledge/attitude score</td>
<td>132.0±9.2</td>
<td>142.6±10.6</td>
<td>139.3±12.6</td>
<td>4.0 (1.68)</td>
<td>0.0256</td>
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<tr>
<td>Professional issues</td>
<td></td>
<td></td>
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<tr>
<td>Perception of care practices</td>
<td>23.4±5.4</td>
<td>25.0±4.9</td>
<td>23.3±5.2</td>
<td>0.1 (0.70)</td>
<td>0.9189</td>
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<tr>
<td>Staff satisfaction</td>
<td>15.0±3.1</td>
<td>15.5±2.3</td>
<td>14.7±3.5</td>
<td>0.1 (0.17)</td>
<td>0.6471</td>
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<tr>
<td>Burden of upsetting behaviors</td>
<td>17.9±4.2</td>
<td>19.1±4.0</td>
<td>9.8±2.4</td>
<td>1.0 (0.41)</td>
<td>0.0177</td>
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<tr>
<td>Capacity for collaboration</td>
<td>9.1±2.2</td>
<td>9.1±1.8</td>
<td>9.8±2.4</td>
<td>0.3 (0.26)</td>
<td>0.2627</td>
</tr>
<tr>
<td>Resource availability</td>
<td>24.4±6.1</td>
<td>26.7±6.0</td>
<td>26.7±6.0</td>
<td>2.0 (0.90)</td>
<td>0.0322</td>
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<td>Institutional values regarding older adults and staff</td>
<td>25.5±5.0</td>
<td>25.6±4.5</td>
<td>26.7±5.8</td>
<td>0.2 (0.40)</td>
<td>0.5739</td>
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<td>Minimum data set use</td>
<td>22.3±4.2</td>
<td>23.9±5.2</td>
<td>24.3±6.9</td>
<td>1.2 (0.83)</td>
<td>0.1541</td>
</tr>
</tbody>
</table>
Team Satisfaction Survey

Following the ASILA program:

• 83% perception of role changes
• 77.8% felt more confident in providing care
• 83.3% were happier with their role on the team
• 83.3% felt care provided was more resident-centered
• 37.5% - 38.96% believed that management supported the program
• 55.6% - 61.1% believed the quality of care and teamwork improved as a result of ASILA
“I don’t think we ever knew how to actually read them properly. I don’t think we were ever shown in school or anything so that really changed being able to understand them when you’re looking at them now. Because I would just see a bunch of numbers and try to guess what they meant or whatever but now we know how it works.” – PSW 3
Quotes

“I think it would save a lot more residents’ lives” – PSW 4

“I learned a lot about the MDS; relating it to what we’ve seen.” - PSW 9
Residents Demographics

- Mean age: $81.2 \pm 14.5$ years
- Twenty-one (70.0%) were female
- Mean length of stay was $2.5 \pm 2.1$ years
- Primary diagnoses included:
  - Acute/chronic back pain (3.3%)
  - Dementia (40.0%)
  - Anxiety (10.0%)
  - Cerebrovascular accident (16.7%)
  - Depression (20.0%)
  - Congestive heart failure (13.3%)
  - Hypothyroidism (20.0%)
  - Osteoporosis (20.0%)
  - Arthritis (16.7%)
Residents Outcome Data

Resident Characteristics before and after ASILA

• Small shift towards increased CPS scores (23.3% vs 20.0% of scores ≥3)

• Increased ADL scores (25.0% vs 5.0% of scores ≥14)

• Increased CHESS scores (26.6% vs 16.7% of scores ≥2)

• Decreased pain scores (10.0% vs 16.7% of scores ≥2) over the three month period
Residents Outcome Data

- Depression scores did not appear to change after three months.

- Mixed cumulative logistic models did not show any non-zero change over time and were not reported.
Discussion

• First study to target three specific care deficits and deliver tailored training programs to NAs in LTC (to the authors’ knowledge)

• Despite limited significant changes, data from interviews provided a rich description of the impact of the ASILA program on staff knowledge and role perceptions and how that translated to care practices

• Data from the questionnaires indicated quantifiable improvements in key knowledge areas
Discussion

• NAs improved their geriatric nursing knowledge and MDS usage; however, none of these findings were significant.

• NAs reported increased confidence and more resident-centered care after the program but were divided on if the quality of care and teamwork improved.
Conclusion

• This study was not able to show a significant difference in care or resident outcomes, likely due to a small sample of the staff who participated in the ASILA program and the short follow-up period.

• Further larger studies may find that increased staff knowledge and use of interRAI instruments results in meaningful changes in resident care and outcomes.
Key Deliverables

1) Evidence-informed case simulations in the areas of frail seniors;

2) 6 trainers to support capacity building and sustainability of the new knowledge and skills within and across organizations;

3) Improved targeted clinical outcomes for frail seniors;

4) Knowledge products (i.e., scenarios, train-the-trainer, and trainers resources etc.).
Closing

The ASILA Program has the potential to enhance care for frail seniors in NH settings, emphasizing quality of life, promoting best practices, all while working within a financial framework of accountability.
Webinar Satisfaction Survey and Future Webinars

Brief survey will pop up on your screen within next few seconds. Your responses provide us with feedback on how we can improve the webinar series.

Upcoming webinars – register on twitter @CFN_NCE

Wednesday, April 6, 2016 at 12 noon ET
Benchmarking EOL care practices for elderly in primary care – results of CFN-funded CORE Grant – Francis Lau, University of Victoria

Wednesday, April 20, 2016 at 12 noon ET
Evaluation of clinician e-tool for acute care QOL assessments of older adults – results of CFN-funded Knowledge Synthesis Grant – Richard Sawatzky, Trinity Western University

Wednesday, May 4, 2016 at 12 noon ET
Frailty measure for persons with intellectual, developmental disabilities – results of CFN-funded Knowledge Synthesis Grant – Hélène Ouellette-Kuntz, Queen's University

Webinar slides available at: cfn-nce.ca/news-and-events/webinars

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