GSA Webinar Series

Common Data Elements for Workforce and Staffing in International Long-Term Care Research

SUPPORTED BY THE GSA INNOVATION FUND: THE GENERATIVITY EFFECT

Webinar Panel

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Quick Audience Poll

- Please tell us who you are:
  - Academia
  - Industry
  - Government
  - Medical Practice
  - Other

Agenda

Background
  1. WE-THRIVE Purpose
  2. Common Data Elements

Workforce and Staffing: Domain and Concepts
  1. Staff Retention and Turnover
  2. Supervisory Effectiveness
  3. Staff Training

Discussion and Conclusion
Q and A
Background

International research on long-term care (LTC) can valuably inform LTC policy and practice, but limited transnational collection of data on key LTC issues restricts the contributions of international LTC research. Effectively addressing key challenges to providing high-quality, person-centered LTC requires data sharing and aggregation, but this can only be achieved through the development and implementation of common data elements in an open, collaborative infrastructure.

WE-THRIVE Purpose

Worldwide Elements To Harmonize Research In long-term care liVing Environments (WE-THRIVE) is an initiative led by LTC researchers—including researchers from low-, middle-, and high-income countries—to identify LTC common data elements that can be implemented internationally for the purpose of supporting older adult thriving...even during the COVID-19 pandemic.
COVID and Care Worker Precarity

- Chronic understaffing in nursing homes is a global concern
  - Makes providing basic care a challenge
  - Monitoring residents for COVID-19 symptoms even more difficult
  - Undermines ability to follow protocols to keep residents physically distant
- Precarious work conditions contribute to the global staffing crisis and the COVID-19 pandemic
  - Part-time employment; low wages; heavy workloads; punitive measures related to sick time; obligation to work when sick


WE-THRIVE: Paradigm Shift

- Emerging, aspirational paradigm of resilience and thriving
- Ontological foundation that is person-centered and strengths-based
- Co-creation of a new measurement approach using common data elements
Common Data Elements (CDEs)

“A data element that is common to multiple data sets across different studies” (NIH 2017)

- Promote standardized, consistent, and universal data collection
  - Reduce time and cost for developing data collection tools
  - Improve data quality

- Facilitate data sharing and aggregation
  - Improve opportunities for meta-analysis and comparisons

- Make research more efficient
  - Reduce the amount of data that need to be collected
  - Speed knowledge development and increase impact

Concepts for Common Data Elements

<table>
<thead>
<tr>
<th>Organizational Context</th>
<th>e.g., regulation, funding, leadership, work environment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Workforce &amp; Staffing</td>
<td>e.g., skills, attitudes and knowledge; collaboration &amp; teamwork; retention &amp; turnover; leadership &amp; supervision</td>
</tr>
<tr>
<td>Person-Centered Care</td>
<td>e.g., relationship; knowing the person; what matters most to the person</td>
</tr>
<tr>
<td>Care Outcomes</td>
<td>e.g., symptom management; functional level; well-being/ QoL; harm-free care</td>
</tr>
</tbody>
</table>
Work to Date in This Domain

1. Staff retention and turnover
2. Supervisory effectiveness
3. Staff training

International Common Data Elements for Residential Long-term Care

Collection description:
International research on long-term care (LTC) can valuable inform LTC policy and practice, but limited transnational collection of data on key LTC issues restricts the contributions of international LTC research. Effectively addressing key challenges to providing high-quality, person-centered, residential LTC requires data sharing and aggregation; this can only be achieved through the development and implementation of common data elements (CDEs).
1. Staff Retention and Turnover

Maintain Capacity in Residential Long-term Care

- Increasing frailty and dependency of residents in residential long-term care with unchanged financial regulations or care models
  - Both a sufficient (number and skill mix) and competent workforce are needed
  - Capacity building: increase entries in nursing education, promote re-insertion in workforce, maintain staff, prevent turnover
Two Sides of a Coin: Stay or Leave?

Retention / Intention to Stay
- Stability of staff: long-term relationships with residents / families; knowing the person; retain facility-specific knowledge, better quality of care
- Influencing factors: empowerment, supervisory support, possibility to provide good quality of care

Turnover / Intention to Leave
- Change in staff: new recruitment, temporary replacements; reduced productivity; costly; disorientation for cognitively impaired residents; poorer resident outcomes
- Influencing factors: work stress, burnout, job dissatisfaction

Different concepts with different influencing factors
Eliminating factors related to intention to leave will not have employees stay

Measurement Issues

<table>
<thead>
<tr>
<th>Staff Retention / Turnover</th>
<th>Facility level:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Administrative data</td>
</tr>
<tr>
<td></td>
<td>Survey of administrator / director of nursing</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Intention to Stay / Leave</th>
<th>Individual level:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Survey of employees</td>
</tr>
</tbody>
</table>

- WE-THRIVE focus on capacity ↦ measure retention rather than turnover
- Challenge of international data collection of administrative data ↟ measure at individual level
### Table 2. Measurement of Intention to Stay.

<table>
<thead>
<tr>
<th>Source</th>
<th>Measurement item</th>
</tr>
</thead>
<tbody>
<tr>
<td>Eltaybani, Noguchi-Watanabe, Igarashi, Saito, and Yamamoto-Mitani (2018)</td>
<td><strong>Single item</strong> Do you want to continue working in your current workplace? Answer options: I want to continue working/I want to work in another workplace do not know</td>
</tr>
<tr>
<td>Radford, Shacklock, and Bradley (2015) based on Kim, Price, Mueller, and Watson (1996)</td>
<td>Scale with four items • I plan to leave this organization as soon as possible • Under no circumstances will I voluntarily leave this organization • I would be reluctant to leave this organization • I plan to stay in this organization as long as possible Answer options: 5-point Likert-type scale from strongly disagree to strongly agree</td>
</tr>
<tr>
<td>McGilton, Tourangeau, Kavcic, and Wodchis (2013)</td>
<td><strong>Single item</strong> How likely is it that you will continue working at this facility for the next 5 years Answer options: 5-point Likert-type scale from very unlikely to very likely</td>
</tr>
<tr>
<td>Dill, Morgan, Marshall, and Pruchno (2013)</td>
<td><strong>Single item</strong> I intend to remain in my current position for the near future Answer options: 4-point Likert-type scale from strongly disagree to strongly agree</td>
</tr>
<tr>
<td>Hsieh and Su (2007)</td>
<td><strong>Single item</strong> From now, how many years will you stay in the long-term care industry in the near future? Answer option: open</td>
</tr>
</tbody>
</table>

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**Suggested Single-Item Measure**

I intend to stay in this organization for the next 12 months

- [ ] Strongly disagree
- [ ] Disagree
- [ ] Neutral
- [ ] Agree
- [ ] Strongly agree

- Low questionnaire burden
- Includes time period for clarity, 12 months selected since LTC fast moving market
- Include all staff in survey

Open:

- Psychometric testing in different languages
- Assess relevance of staff stability in low- and middle-income countries
Quick Poll

What do you think about this measurement for intention to stay for international comparison? (multiple answers are possible)

- This seems applicable in my country
- The idea seems ok, but is not applicable in my country
- I would prefer the measurement of turnover / intention to leave
- I would prefer the use of administrative data instead of an employee survey
- I would prefer a measurement with more than one item

2. Evaluating Supervisory Effectiveness in LTC

PENDING REVIEW

Exploring Common Data Elements for International Research in Long-Term Care Settings:
Ranked Candidate Measures for Evaluating Supervisory Effectiveness

Supervisory Effectiveness

- Supervisors in LTC are nurses (RNs/RPN/LPNs) overseeing the activities of nursing assistants (NAs), who report directly to them.
- Supervisors primarily determine if LTC workers feel valued and respected (Hawkins et al., 2012).
- Common attributes of effective supervisors: active listening to employees' unique aspirations and interests, being flexible, communicating information, openness, supportive behaviours, and being understanding (Chu, et al., 2016).
- Effective supervisors are in pivotal positions and are associated with:  
  - Quality of LTC environments (e.g. positive organizational environments) (McGilton et al., 2016).
  - Improved NA job satisfaction (Choi et al., 2010).
  - Reduce intent to turnover (Bethell et al., 2018).
  - Espousing resident-centered care (Ericson-Lidman, 2014).

Methodology

**Aim:** Identifying tools to measure supervisory effectiveness within LTC settings.

**Two phases to identify tools to measure supervisory effectiveness**

1. Literature review on supervisory effectiveness measures
   - Range 2000-2019; conducted June 2019 on Medline, Embase, CINAHL, and HaPI. Scales identified as appropriate for this review of nursing supervisory effectiveness used search terms “leadership,” “leader,” “lead,” “charge,” “manager,” “nursing,” “nurse,” “assistant,” and “aide.” These were further paired with terms “nursing home” and synonyms, “questionnaires,” “psychometry,” and “measurement.”; in English.

2. Ranking process and selection of candidate measures
   - Two reviewers independently analyzed the literature review and by using the inclusion and exclusion criteria → 11 measurement tools were identified, 2 were removed because payment was required to access these tools.
   - The 9 tools and spreadsheet about each tool (psychometric data, languages, etc.) were circulated to the 6 member WE-THRIVE subgroup.
Methodology (cont.)

Ranking process and selection of candidate measures

Members were asked to individually review the measures (n=9) and rank according to those being “best” suited for international use in LTC settings.

Several aspects were considered when evaluating the measures:
- Elements of the scales (e.g., the relevance of scale items)
- The accessibility of scales being available in plural languages
- Psychometric properties of the scales
- Logistical aspects of the scales (e.g., the financial cost associated with conducting the scale)
- Degree of labor in completing the measure
- Scale outcomes were included and were regarded as though the scale could be translated into positive staff/resident outcomes

Tools Under Consideration

1. Direct Care Staff Survey Instrument
2. Job Role Quality Questionnaire, Supervision Subscales
3. Leadership Behavior Questionnaire
4. Relationship between management practice index (Anderson et al., 2003)
5. Psychological distress survey (Van der Heijden et al., 2017)
6. Leadership, staffing, and quality of care in nursing homes (Havig et al., 2011)
7. Benjamin Rose Relationship with Supervisor Scale (Noelker & Ejaz, 2001)
8. Supportive Supervisory Scale (McGilton, 2010)
Results

Ranking of Proposed CDE Measures

<table>
<thead>
<tr>
<th>Rank</th>
<th>Score</th>
<th>Measure</th>
<th>Rationale for Consideration of Use as a CDE</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>1.8</td>
<td>Benjamin Rose Relationship with Supervisor Scale</td>
<td>Highly relevant to the nursing supervisor and relational aspects of the role, established and acceptable psychometric properties, appropriate time/number of items for completion.</td>
</tr>
<tr>
<td>2</td>
<td>2.2</td>
<td>Supportive Supervisory Scale</td>
<td>Specific to LTC settings, highly appropriate in covering an array of nursing supervisory characteristics, established and acceptable psychometric properties, appropriate time/number of items for completion, may be used in economic and English/Spanish evaluations.</td>
</tr>
<tr>
<td>3</td>
<td>3.2</td>
<td>Learn, Empower, Achieve, Produce Survey – Leadership Behaviors Subscale</td>
<td>Prior use in LTC settings, leadership subscale highly relevant to nursing supervisors, established and acceptable psychometric properties, acceptable time/number of items for completion, freely accessible.</td>
</tr>
</tbody>
</table>

Discussion

- A thematic component through the top 3 identified measures:
  - Use of Likert-type scales; item commonalities include supervisory elements to staff of attentive listening; provision of credit, recognition, praise, and vocalized appreciation; encouragement of individual self-growth and fullest application; and receptiveness to staff concerns and ideas

**Strengths:** international and multidisciplinary nature of the WE-THRIVE expert-judge review; the systemic approach in which CDEs were identified and captured
Limitations

- Search was in English only → may have excluded measures
  - Highlight a need for further research for identification of additional measures in other languages
- Panel did not include representatives from Africa, Asia, Australia, or South America

Further work is needed to explore the usefulness of these CDEs from the perspective of LTC providers and other low- and middle-income countries in non-English speaking countries.

Quick Poll

Is supervisor effectiveness important to long-term care in all countries?
- [ ] Yes
- [ ] Not sure
- [ ] No
Quick Poll

Is long-term care supervisor effectiveness sufficiently important to collect data on internationally?

☐ Yes  ☐ Not sure  ☐ No

3. Frontline Staff Training

FINAL REVIEW

Strengthening International Research in Long-Term Care: Recommended Common Data Elements to Support Frontline Staff Training

Charlene Chu, Katherine S. McGilton, Annica Backman, Veronique Boscart, Anette Fagertun, Kim Le, Reena Devi, Karen Spilsbury, Montserrat Gea-Sánchez, Franziska Zúñiga
Frontline Staff Training in LTC

- Training aims to augment and enhance individuals’ knowledge, understanding, behaviors, skills, values, and beliefs while serving several important functions, including attracting people to LTC jobs (Davis & Lundstrom, 2011)
  - Can improve the poor image of jobs in LTC homes, thereby attracting and retaining more people to the sector (Fujisawa & Colombo, 2009; Hussein & Manthorpe, 2005)

- The most widely accepted method to increase staff resilience and capacity to provide high-quality care (Alzheimer’s Disease International (ADI), 2013; Fujisawa & Colombo, 2009; Hussein & Manthorpe, 2005)

- Enhances the psychological well-being of staff with broad-reaching benefits for residents (ADI, 2013; Spector, Revolta, & Orrell, 2016)

A Need for Measurement

- Differences between the content of training, job categories, and LTC services offered make it difficult to compare training programs, experiences, and outcomes internationally
  - For instance, training programs can be specifically designed for LTC units, institutions, cultures, and geographical jurisdictions. Further heterogeneity with respect to the training frequency, content, structure, etc. prevents the aggregation of data to build cross-national evidence about effective training in LTC.
  - There is no minimum international standard for LTC training and thus unable to compare countries
Methodology: Scoping Review

**Aim:** conduct a scoping review to inform the development of a standardized approach to evaluating training programs globally

**Method:** Arksey and O’Malley (2005) scoping review framework

**Search strategy:** Medline, Embase, CINAHL, and HaPI. A secondary search was conducted on Google Scholar and only the first 200 results were screened; English language; 2000-2020.

**Terms and synonyms:** Nurses, nursing assistants, nursing homes, training

**Inclusion criteria:** studies that included training on any topic for clinical staff providing direct resident care in LTC home settings, and including a quantitative and structured evaluation of the training

**Extraction:** attributes of staff training, tools used, how training is documented, and identify the effect of training on nurse, patient, and institutional (i.e., organizational) outcomes

Results

356 manuscripts for screening → 29 studies included

Studies were heterogeneous in almost all aspects, including content, facilitation, duration, measurement, and outcomes

Despite this, there was a positive impact of LTC staff training

- Staff outcomes (e.g., improved knowledge, competence, and attitudes) (Jones et al., 2004; Kemeny et al., 2006; Wils et al., 2017)
- Resident outcomes (e.g., quality of life, reduced agitation)
- Institutional-level outcomes (e.g., decreased infection rates across the LTC institution)
Discussion

No current measure in the literature that would allow the comparison of the quantity and quality of training provided in LTC sectors on a macro level (e.g., Which regions provide more or less training to staff?)

We conclude there is a greater need for more rigorous evaluation of training: a greater baseline understanding about whether training is even provided and measured at all across different jurisdictions and countries is critical to understand inequities.

CDEs need to consider discrepancies in resources and staffing, nuanced or complex theoretical concepts may be lost in translation, needs to be clear and easy to understand.

Proposed CDEs

CDEs collect essential baseline data regarding the presence of and the measurement of training in order to conduct cross-country comparative research.

To this end, the two candidate CDEs suggested:

1. Was there institutional training provided to staff in the last year? (N/Y)
2. Was the training evaluated using a standardized measure related to: (i) staff, (ii) resident, or (iii) institutional-level outcomes? (N/Y x 3)

Proposed CDEs and subject to change according to the emerging literature and future ongoing consultations with the broader academic and LTC community.

Future work to test feasibility is required.
Quick Poll

Proposed CDEs

1. Was there institutional training provided to staff in the last year? N Y
2. Was the training evaluated using a standardized measure related to
   i) Staff N Y
   ii) Resident N Y
   iii) Institutional-level outcomes? N Y

What do you think about this measurement of staff training for international comparison?

- This seems applicable in my country
- The idea seems ok, but is not applicable in my country
- I would prefer additional items
- I would prefer fewer items

Quick Poll

Is long-term care staff training sufficiently important to collect data on internationally?

- Yes
- Not sure
- No
Discussion and Conclusion

Discussion

Staffing issues have been a long-standing problem in LTC systems around the world; yet, staffing continues to be examined in a siloed manner.

CDEs will provide ability to compare and contrast research data and studies to identify areas that can optimize workforce and staffing.
Further Themes to Explore

▪ First three concepts developed for WE-THRIVE subgroup
  Workforce and Staffing:
  ▪ Intention to stay and supervisory effectiveness (staff level)
  ▪ Staff training (institutional level)

▪ More to come examining other areas of this domain:
  ▪ Staff attitudes and skills
  ▪ Collaboration and teamwork
  ▪ Leadership
  ▪ Others?

Challenges

▪ Using CDEs: nursing home ≠ nursing home
▪ Testing CDEs: applicability to both high-income countries and low- and middle-income countries

▪ Goal: internationalize research, provide comparable data to inform LTC policy and practice

▪ Build international projects with common data elements:
  ▪ Allow data sharing, aggregation, and comparison
  ▪ Define common problems
  ▪ Learn from each other
Call for International Collaborators

Join WE-THRIVE!

Contact: Michael Lepore, PhD
WE-THRIVE co-chair
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Thank You

- Thank you for joining us today! 😊
- Please contact us with any questions:
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  - Michael Lepore
    - michael_lepore@brown.edu
- Archived recording of webinar on GSA’s YouTube channel
Questions

- We will not be using the “raise hand” feature today
- Please use the “questions” feature accessible on the right side of your screen
- If we do not get to all of the questions today, we will email responses after the webinar

Webinar Evaluation

In an effort for continual improvement, we would like to hear your thoughts. Please provide feedback by clicking the survey link at the end of the webinar.

Thank you again and we hope you enjoyed the program!
Thank You

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