Integrated Knowledge Translation
Tackling the role of context

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Diffusion of Innovation Theory

Elements
- The innovation
- Communication channels
- Time
- Social system

Attributes
- The innovation
- The individual
- The organization

Ev Rogers
1931 - 2004
A Timeline

1903 - 1910
- G. Tardé

1920 - 1960
- Agricultural extension model
- Menzel & Katz
- Ryan & Gross

1972 - 1992
- H Shore (CN)

1992 - 2009
- EBM
- AHFMR
- Cochrane Collaboration
- CHSRF
- CIHR
- 2000
CIHR defines knowledge translation as ...
... a dynamic and iterative process that includes synthesis, dissemination, exchange and ethically sound application of knowledge to improve the health of Canadians, provide more effective health services and products and strengthen the health care system.
Implementation science

“Unlike routine applied (or operations) research, which may identify and address barriers related to performance of specific projects, implementation science creates generalizable knowledge that can be applied across settings and contexts to answer central questions.”

Madon, Hofman, Kupfer & Glass, 2007, Science
- 30%-40% of patients do not receive care based on current evidence
- 20%-25% of care provided is not needed or potentially harmful

Eccles et al., 2005; Schuster et al., 1998, McGlynn et al, 2005
How is the problem understood?
As a theory-practice gap

1. Practice fails to live up to theory

2. A relational problem exists between clinicians and organizations

3. Theory is irrelevant to practice.

(Allmark, 1995)
Sometimes as the “know-do” gap

1. Improving access to the world's health information
2. Translating knowledge into policy and action
3. Sharing and reapplying experiential knowledge
4. Leveraging e-Health in countries
5. Fostering an enabling environment

(WHO: http://www.who.int/kms/en/)
all input – no output

“I once asked a worker at a crematorium, who had a curiously contented look on his face, what he found so satisfying about his work. He replied that what fascinated him was the way in which so much went in and so little came out.”

Theory as a tool

Theories that focus on:

• Individual factors
  • Cognitive, educational, attitude, stages of change theories

• Social influence
  • Social learning, social network and influence (e.g., diffusion of innovation), factors related to patients, professional development, leadership theories

• The influences of organizational factors
  • Innovative organizations, quality management, process re-engineering, complexity, organizational learning, organizational culture (e.g., CVF), economic
Theories, emerging theories and frameworks that I find useful
Central problems in the management of innovation

1. **Human - Managing attention**
   Longitudinal study of the social and political processes by which people become invested in or attached to new ideas and push them into good currency

2. **Process - Managing new ideas into good currency**
   Physiological limitations of people and corresponding organizational inertial issues – what triggers people’s action thresholds?

3. **Structural - Managing whole-part relationships**
   Individuals often lose sight of the whole innovative effort – left to themselves will design impeccable micro-structures for innovation that often result in macro nonsense. Managing - self-organizing groups, redundant functions, requisite variety, temporal linkage

4. **Strategic - Institutional leadership**
   Creating a context requires strategic leadership. The leader’s problem is creating an infrastructure conducive to innovation and organizational learning

Policy analysis frameworks

Lomas, 2000, ISUMA
Knowledge-to-Action Cycle

- Identify Problem
  - Identify, Review, Select Knowledge

- Knowledge Inquiry
  - Tailoring Knowledge
  - Synthesis
  - Products/Tools

- KNOWLEDGE CREATION

- Assess Barriers to Knowledge Use

- Select, Tailor, Implement Interventions

- Monitor Knowledge Use

- Evaluate Outcomes

- Sustain Knowledge Use

- Adapt Knowledge to Local Context

Graham et al., 2006
Normalization Process Theory

Normalization Process Theory explains how new technologies, ways of acting, and ways of working become routinely embedded in everyday practice, and has applications in the study of implementation processes.

May, C., et al., Implementation Science 2009, 4:29
(doi:10.1186/1748-5908-4-29)
PARiHS Framework for Research Implementation

Evidence-based practice

Context

Evidence

Facilitation

Leadership

Culture

Evaluation

Kitson, et al., 1998, QSHC
Rycroft-Malone et al, 2002 (J Adv Nurs)
What is knowledge translation research?

- Research into the determinants and mechanisms of the dissemination and uptake of (research) knowledge in the context of decision-making at clinical, organizational, and regional and higher levels of the health system.

- The goal is improvements in health outcomes, care delivery, and/or system performance.

- Its methods are the same methods used in all other research.
Barriers to Research Utilization

- Studied extensively (probably excessively) in nursing
- Findings are consistent but have told us little since early studies
- Not used to inform interventions
- However, barriers do need to be assessed to determine viable strategies

The latest (last) review:
Commonly identified barriers to research use

- Time
- Resources
- Support
- Knowledge & skills
- Adequate evidence
- Culture, context, environment....
1997 to 2012


3. Two bibliometric studies

4. Developing a valid and reliable measure of research utilization

5. Translating research in acute care hospitals (AKUTE)

6. Translating research in pediatric care (pain management)

7. Translating research in elder care

8. Facilitating the Implementation of Research Evidence (FIRE)

9. Older Persons Transitions in Care (OPTIC): Partnerships in Health System Improvement (PHSI) grant (AB & BC)

10. SCOPE study (Quality & Safety in Nursing Homes: AB and BC)
A Bibliometric Analysis of the Knowledge Utilization Literature: Structure and Substance of a Scientific Community

Estabrooks, Lavis, Wallin, Scott, Profetto-McGrath

- Web of Science over 60 years (1945-2004)
- Descriptive findings
- First author co-citation analysis

Key journals

- Journal of Evaluation in Clinical Practice
- Journal of Advanced Nursing
- BMJ
- Knowledge: Creation, Diffusion, Utilization*
- The Lancet
- Journal of General Internal Medicine
- Research Policy
- JAMA
- Science Communication*
- Social Science & Medicine

*Knowledge became Science Communication
First author co-citation map 1975-1984

Knowledge utilization

Diffusion of innovation

Technology transfer
First author co-citation map 1985-1994

Evidence-Based Medicine

Knowledge utilization

Diffusion of innovation

Technology transfer
First author co-citation map 1995-2004
NHRDP/CIHR, AHFMR

- Four hospitals (two in Ontario, two in Alberta)
- Adult and pediatric surgical units
- Qualitative and quantitative data collected
- Six months of participant observation each unit
- Nurses, patients, physicians, social workers, physiotherapists, and administrators participated
## Taxonomy of nurses’ sources of knowledge

<table>
<thead>
<tr>
<th>Sources of Practice Knowledge for Nurses</th>
<th>Documents</th>
<th>Intra-Personal</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Social Interactions</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Informal</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Nurses</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Peers</td>
<td>CN/NCNE</td>
<td></td>
</tr>
<tr>
<td>Preceptor/Resource</td>
<td>Unit Manager</td>
<td></td>
</tr>
<tr>
<td>Unit Manager</td>
<td>Students</td>
<td></td>
</tr>
<tr>
<td>Clinical Leader</td>
<td>Physicians</td>
<td></td>
</tr>
<tr>
<td>Residents</td>
<td>Specialty Groups</td>
<td></td>
</tr>
<tr>
<td>Allied Health</td>
<td>Patient</td>
<td></td>
</tr>
<tr>
<td>Patient’s Family</td>
<td>Conference</td>
<td></td>
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<tr>
<td>Seminars</td>
<td>Workshops</td>
<td></td>
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<tr>
<td>Short Courses</td>
<td>In-service</td>
<td></td>
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<tr>
<td>Internship</td>
<td>Orientation</td>
<td></td>
</tr>
<tr>
<td>Rounding</td>
<td>Meetings</td>
<td></td>
</tr>
<tr>
<td>Journals/Clubs</td>
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<td></td>
</tr>
<tr>
<td><strong>Formal</strong></td>
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<td></td>
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<tr>
<td>Discipline-Based</td>
<td>Unit-Based</td>
<td></td>
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<tr>
<td>Institution-Based</td>
<td>Intuition</td>
<td></td>
</tr>
<tr>
<td><strong>Experience</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>What has worked/not worked before</td>
<td>Unit-Based</td>
<td></td>
</tr>
<tr>
<td>Nurses’ own research experience</td>
<td>Intuition</td>
<td></td>
</tr>
<tr>
<td>Intuition</td>
<td>Personal beliefs</td>
<td></td>
</tr>
<tr>
<td>Personal experience</td>
<td>Common sense</td>
<td></td>
</tr>
</tbody>
</table>

Thoughts on why

**Time:** Nurses typically work on multiple schedules; high and frequent levels of resequencing are required

**Context:** Nurses tend to be motivated to seek knowledge when they have context specific patient care situations and problems to deal with

**Trust:** Nurses tend to seek information/knowledge from those they trust (knowledgeable, empathetic)

**Hierarchy:** An environment where norms of organizational hierarchy are strictly adhered to negatively affects knowledge transfer between nurses and CNS’s, clinical leaders, and physicians
7 Unit Comparison
Overall, few differences in the sources used by nurses across units

<table>
<thead>
<tr>
<th>Information Source</th>
<th>Unit 1</th>
<th>Unit 2</th>
<th>Unit 3</th>
<th>Unit 4</th>
<th>Unit 5</th>
<th>Unit 6</th>
<th>Unit 7</th>
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<tbody>
<tr>
<td>Individual patient</td>
<td>3</td>
<td>1</td>
<td>1.5</td>
<td>2</td>
<td>2</td>
<td>1</td>
<td>2.5</td>
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<tr>
<td>Intuitions</td>
<td>8</td>
<td>8</td>
<td>4</td>
<td>5</td>
<td>8</td>
<td>7</td>
<td>4.5</td>
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<tr>
<td>Personal experience</td>
<td>1.5</td>
<td>2</td>
<td>1.5</td>
<td>1</td>
<td>1</td>
<td>2</td>
<td>1</td>
</tr>
<tr>
<td>Nursing school</td>
<td>1.5</td>
<td>4</td>
<td>3</td>
<td>3</td>
<td>6.5</td>
<td>9</td>
<td>8</td>
</tr>
<tr>
<td>Physicians discussions w ns</td>
<td>9</td>
<td>5.5</td>
<td>7</td>
<td>7</td>
<td>6.5</td>
<td>3</td>
<td>9</td>
</tr>
<tr>
<td>Physician’s orders</td>
<td>7</td>
<td>7</td>
<td>9.5</td>
<td>7</td>
<td>9.5</td>
<td>8</td>
<td>12.5</td>
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<td>Medical journals</td>
<td>15</td>
<td>15</td>
<td>16</td>
<td>14.5</td>
<td>15</td>
<td>14</td>
<td>15</td>
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<tr>
<td>Nursing journals</td>
<td>13</td>
<td>12</td>
<td>13</td>
<td>11</td>
<td>13</td>
<td>10</td>
<td>10</td>
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<tr>
<td>Nursing research journals</td>
<td>14</td>
<td>13</td>
<td>14</td>
<td>16</td>
<td>15.5</td>
<td>13</td>
<td>11</td>
</tr>
<tr>
<td>Textbooks</td>
<td>11</td>
<td>9</td>
<td>11</td>
<td>12.5</td>
<td>11</td>
<td>12</td>
<td>14</td>
</tr>
<tr>
<td>‘What has worked for years’</td>
<td>6</td>
<td>11</td>
<td>7</td>
<td>7</td>
<td>4.5</td>
<td>11</td>
<td>4.5</td>
</tr>
<tr>
<td>‘Ways nurse has always done it’</td>
<td>12</td>
<td>14</td>
<td>12</td>
<td>10</td>
<td>12</td>
<td>15</td>
<td>12.5</td>
</tr>
<tr>
<td>Fellow nurses</td>
<td>4.5</td>
<td>5.5</td>
<td>7</td>
<td>4</td>
<td>3</td>
<td>6</td>
<td>7</td>
</tr>
<tr>
<td>In-services in workplace</td>
<td>4.5</td>
<td>3</td>
<td>5</td>
<td>12.5</td>
<td>4.5</td>
<td>5</td>
<td>2.5</td>
</tr>
<tr>
<td>Policy &amp; procedure manuals</td>
<td>10</td>
<td>10</td>
<td>9.5</td>
<td>9</td>
<td>9.5</td>
<td>4</td>
<td>6</td>
</tr>
<tr>
<td>The media</td>
<td>16</td>
<td>16</td>
<td>15</td>
<td>14.5</td>
<td>15.5</td>
<td>16</td>
<td>16</td>
</tr>
</tbody>
</table>
Sources of Knowledge Patterns Over Time

Mean Score

Individual Client/Patient Intuitions
Personal experience
Nursing School
Physician's orders
Medical Journals
Nursing Journals
Nursing Research Journals
Textbooks
What has worked for years
Ways nurse has always done it
Fellow Nurses
In-services in workplace
Policy and procedure manuals
The media

Sources of Knowledge

Note: Mean scores were transformed to fit a five-point likert scale (0-4), with 0 as ‘never’ and 4 as ‘always’.
Summary

- Individual patient information, personal experience, and social interactions are main information sources – and this should not be a surprise
- Limited use of journals, textbooks, and popular media, less clear re the internet
- The structure and organization of nurses’ work has a major influence on their choice of knowledge sources
- Researchers need to merge nurses’ information-seeking behavior with dissemination strategies

Patterns of research use

Research utilization scores by units (half of the shifts as reference line)
Mapping of results patterns onto units based on research utilization scores

<table>
<thead>
<tr>
<th>FACTORS</th>
<th>Low Group</th>
<th>Medium Group</th>
<th>High Group</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Units 1&amp; 4</td>
<td>Units 3 &amp; 5</td>
<td>Units 2, 6, &amp; 7</td>
</tr>
<tr>
<td>Influence of students</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Organizational support</td>
<td></td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>People support</td>
<td>X</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Resequencing</td>
<td></td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Attitude</td>
<td></td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Continuing education</td>
<td></td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Critical thinking</td>
<td></td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Creativity</td>
<td></td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Efficiency</td>
<td></td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Authority</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Beliefs</td>
<td></td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Questioning behavior</td>
<td></td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Intent</td>
<td></td>
<td>X</td>
<td></td>
</tr>
<tr>
<td>Coworker support</td>
<td></td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Total PRN score</td>
<td>X</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Some summary comments…

Interventions

- Education
- In-service
- Reminders
- Audit with feedback
- Knowledge brokers and other intermediaries (e.g., clinical educators)

What’s missing?

- Context of work of nursing services delivery
- System, organizational environment
- Feasibility
- Modifiability
- Sustainability
1997 to 2012


3. Two bibliometric studies

4. Developing a valid and reliable measure of research utilization

5. Translating research in acute care hospitals (AKUTE)

6. Translating research in pediatric care (pain management)

7. Translating research in elder care

8. Facilitating the Implementation of Research Evidence (FIRE)

9. Older Persons Transitions in Care (OPTIC): A CIHR Partnerships in Health System Improvement (PHSI) grant
Understanding the influence of context on knowledge translation

Suite of three programs

**Pediatric Acute Care**
- CIHR Team grant (TROPIC)
  - Context assessment
  - Context to KT
  - Multi-level & structural eqn. modeling
  - KT and clinical outcomes

**Pilot** (in progress) in AB teaching hosp.
**Five “groups” of health professionals**
**Instrument testing**
**Next stage - western provinces** (outcomes, multi-level modeling)

**Facility Based Elder Care (LTC)**
- Translating research in elder care (TREC)
  - Sweden/Canada knowledge & work project (dementia)
  - TREC program
    - 3 prairie prov., LTC
    - Context surveillance
    - Enhanced A&F
    - KT and resident outcomes
    - Pilot studies

**Utilization of research in hospitals (AKUTE)**

2006-2011
2005-2007
2007-2012
**Adult/acute care (AKUTE)**

- **Objectives:**
  - To determine the feasibility of a larger scale study in Western Canada
  - To develop & validate the Alberta Context (ACT) tool
  - To identify predictors of research utilization
  - To assess five provider group differences and similarities

N=4 teaching hospitals
N=453 (5 professional groups)

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$150K$ AHFMR

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Purpose:
To examine knowledge translation activities of Alberta health researchers from different disciplines and faculties using Mode I and Mode II archetypes as an analytical frame.

<table>
<thead>
<tr>
<th>Sample characteristics (n=240)</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>152</td>
<td>63.3%</td>
</tr>
<tr>
<td>Female</td>
<td>88</td>
<td>36.7%</td>
</tr>
<tr>
<td>Faculty</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Medical school</td>
<td>128</td>
<td>53.3%</td>
</tr>
<tr>
<td>Other health science faculties</td>
<td>112</td>
<td>46.7%</td>
</tr>
<tr>
<td>Research Domain</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Basic</td>
<td>72</td>
<td>30.0%</td>
</tr>
<tr>
<td>Applied</td>
<td>168</td>
<td>70.0%</td>
</tr>
<tr>
<td>Academic Rank</td>
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<td></td>
</tr>
<tr>
<td>Full professor</td>
<td>104</td>
<td>43.3%</td>
</tr>
<tr>
<td>Associate professor</td>
<td>74</td>
<td>30.8%</td>
</tr>
<tr>
<td>Assistant professor</td>
<td>53</td>
<td>22.1%</td>
</tr>
<tr>
<td>Other</td>
<td>9</td>
<td>3.8%</td>
</tr>
<tr>
<td>Work setting</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hospital only</td>
<td>18</td>
<td>7.5%</td>
</tr>
<tr>
<td>University only</td>
<td>110</td>
<td>45.8%</td>
</tr>
<tr>
<td>University + Hospital</td>
<td>112</td>
<td>46.7%</td>
</tr>
</tbody>
</table>
We defined:

- Mode I activities as the number of scholarly publications
- Mode II activities as the scores on items reflecting *plain* and *engaged* dissemination
<table>
<thead>
<tr>
<th></th>
<th>Plain Dissemination</th>
<th>Engaged Dissemination</th>
<th>Number of Publications</th>
</tr>
</thead>
<tbody>
<tr>
<td>Contribution provided by users</td>
<td>.507(**)</td>
<td>.448(**)</td>
<td></td>
</tr>
<tr>
<td>Perceived impact</td>
<td>.624(**)</td>
<td>.590(**)</td>
<td></td>
</tr>
<tr>
<td>Relational capital</td>
<td>.561(**)</td>
<td>.495(**)</td>
<td></td>
</tr>
<tr>
<td>Barriers to uptake of research</td>
<td>.241(**)</td>
<td>.267(**)</td>
<td></td>
</tr>
<tr>
<td>Perceived importance of dissemination activities (A)</td>
<td>.306(**)</td>
<td>.164(*)</td>
<td></td>
</tr>
<tr>
<td>Perceived importance of dissemination activities (B)</td>
<td>.404(**)</td>
<td>.341(**)</td>
<td></td>
</tr>
<tr>
<td>Recognition of expertise</td>
<td>.618(**)</td>
<td>.448(**)</td>
<td></td>
</tr>
<tr>
<td>Years of experience (as service provider)</td>
<td>.364(**)</td>
<td>.331(**)</td>
<td></td>
</tr>
<tr>
<td>Research focus – users’ need</td>
<td>.464(**)</td>
<td>.542(**)</td>
<td></td>
</tr>
<tr>
<td>Research focus – scholarly advancement</td>
<td>-.144(*)</td>
<td>-.191(**)</td>
<td>.192(**)</td>
</tr>
<tr>
<td>Perceived importance of original studies leading to publication</td>
<td>-.133(*)</td>
<td>-.157(*)</td>
<td>.316(**)</td>
</tr>
<tr>
<td>Cost of utilization</td>
<td></td>
<td></td>
<td>.213(**)</td>
</tr>
<tr>
<td>Number of research personnel</td>
<td>.247(**)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Years of experience (post grad)</td>
<td>.303(**)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
PARiHS Framework for Research Implementation

- Context
  - Leadership
  - Culture
  - Evaluation
- Evidence
- Facilitation

Adding to context:
- Slack
- ITM’s
- Resources
- Social capital

Individual attributes:
- Attitude
- PSA
- Belief suspension
- MBI
- SF-8

Kitson, et al., 1998, QSHC
Rycroft-Malone et al, 2002 (J Adv Nurs)
Constructs in the Alberta Context Tool (ACT)

- Leadership
- Culture
- Evaluation (feedback processes)

- Information sharing interactions
- Information sharing activities
- Information sharing processes (social capital)
- Structural and electronic resources
- Organizational slack

Core elements (~65% variance)
Additional concepts

- Knowledge translation (research use)
- Facilitative mechanisms in the workplace
- Relationship with work
  - job satisfaction, career/occupation satisfaction
  - knowledge, orientation for work
- Demographics
- Selectively added scales, e.g.,
  - MBI-GS
  - Health Status SF-8
  - Problem Solving Inventory (PSI)
  - Attitude to research
  - Belief suspension
**Objective:** To determine the influence of organizational context on KT, and KT on patient outcomes (pain intensity)

**Three projects:**
1. EPIC (dBase)
2. Assessing context (Edmonton led)
3. A facilitation intervention

- N = 8 pediatric hospitals
- N = 32 patient care units
- N = 1200+ (~900 nurses + 4 additional provider groups in wave 1)

$6M CIHR
Purpose: To address the impact of context on knowledge translation (KT) and subsequent impact of KT on health outcomes* (as well as provider and system outcomes)

Facility Based Elder Care (LTC)

Translating research in elder care (TREC)

- Multi-method
- Multi-level
- Longitudinal (5 years)
- 3 major inter-related projects:
  - Organizational monitoring system
  - Context case studies
  - A & F intervention
  - Series of 3 pilot studies

$4.7M CIHR
The Translating Research in Elder Care (TREC) Research Program is a five-year study funded by CIHR (Canadian Institutes of Health Research). In our research program the researchers will explore the factors that influence the use of 'best practices' by staff providing care in long-term care facilities in the three Canadian Prairie Provinces (Alberta, Saskatchewan, Manitoba). They will also look at how the organizational environment and the use of 'best practices' influence resident and staff outcomes. TREC has three components:
Team members

Alberta: Carole Estabrooks (PI), Peter Norton, Greta Cummings (SL), Joanne Profetto-McGrath, Corinne Schalm, Caroline Clarke, Belle Gowriluk, Donna Stelmachovich

Saskatchewan: Debra Morgan (SL), Norma Stewart, Gary Teare, Gretta-Lyn Ell, Juanita Treemer

Manitoba: Lesley Degner (SL), Malcolm Smith, Verena Menec, Lori Lamont, Luana Whitbread

ONT: Kathy McGilton, Heather Laschinger

UK: Sue Dopson, Jo Rycroft-Malone

Collaborators, advisors:
Jack Williams, David Hogan, Chuck Humphrey, Judy Birdsell, Michael Leiter, Charles Mather, Phyllis Hemple

Scientific Advisory Committee: Dot Pringle (Chair), Rejean Hebert, Alison Kitson, Rosalie Kane, Cy Frank
Purpose

To address the impact of context on knowledge translation (KT) and subsequent impact of KT on resident outcomes (and secondarily provider and system outcomes)
Aims

1. To build knowledge translation theory on the role of context in influencing knowledge use in long term care (LTC) settings and among non-professional care givers

2. To contribute to better use of knowledge leading to better quality care and better resident outcomes*

3. To pilot knowledge translation interventions (to increase best practices)

   *pain management, dementia behavior management, falls and injury falls reduction
Program Description

- Multidisciplinary, multi-method, multiple stakeholders
- Multi-level (provinces, regions, facilities, individuals)
- Longitudinal (5 years)
- Series of inter-related projects
The Projects

Project 1: Building context: An organizational monitoring program
Project 2: Building context: A Case Study Program in LTC
Feedback Mechanisms: Front line and Site administrators

Pilots:
Leadership development
Supportive supervision
Strategic storytelling

+ Post doc projects
Project 1: An Organizational Monitoring Program

**Purpose:** To explore the effect of context upon knowledge translation and resident, provider, and system outcomes in long-term care

**Design:** Longitudinal, descriptive

**Sample:** 36 long-term care facilities
- Alberta (urban)
- Manitoba (urban)
- Saskatchewan (mixed urban and rural)

**Methods:**
- Survey data collection (TREC survey includes ACT)
- RAI-MDS 2.0
- Facility and unit level data
Project 2: A Case Study Program

**Purpose:** To develop a robust explanation of the way context mediates the use of knowledge in practice in long-term care.

**Design:** Longitudinal, case study

**Sample:**
- 3 major case studies (1/province)
- 6 focused case studies (2/province)

**Methods:**
- Non-participant observation
- Interviews
- Family perspectives
- Documents
- Focus groups
Pilot Projects

Intervention-focused Pilot Studies:

- Storytelling (Malcolm Smith, Winnipeg)
- Supportive Supervision (Profetto-McGrath & McGilton, AB)
- Leadership Development (Cummings & Laschinger, AB)

Additional pilot ideas:
- A good day’s work
- Quality of moment*
- Increasing mobility in dementia residents*
- Development of a facilitation (KT) intervention*
- Development of organizational slack concept*
Results

Project 1
- Year 1 of survey data collection completed
- Year 2 in progress
- RAI-MDS 2.0 data acquisition in progress
- Structural data collection in progress

Project 1
- Major case studies round 1 data collection and analysis complete, interviews complete, analysis in progress

Feedback mechanisms
- Underway

Pilots
- All in progress
TREC Commitment

In addition to the science, to work toward:

- Establishing processes where all facilities within the organizations supporting TREC research (and eventually facilities in the Prairie Provinces) learn in ways meaningful to them from our research

- Contributing to the creation of sustainable enhanced capacity within the LTC sector
The Translating Research in Elder Care (TREC) Research Program is a five-year study funded by CIHR (Canadian Institutes of Health Research). In our research program the researchers will explore the factors that influence the use of 'best practices' by staff providing care in long-term care facilities in the three Canadian Prairie Provinces (Alberta, Saskatchewan, Manitoba). They will also look at how the organizational environment and the use of 'best practices' influence resident and system outcomes. TREC has three

Profiles

Carole Estabrooks
Dr. Estabrooks is Professor, Faculty of Nursing, at the University of Alberta, Edmonton, Alberta, Canada, and holds a
Ongoing plans for assessments of organizational context
1. Links to Outcomes
Patient/Resident Outcomes – links to context

**Pediatric study (TROPIC)**
- Link children's pain intensity

**Nursing home study (TREC)**
- Link RAI-MDS 2.0 outcomes: pain management, dementia behavior management, falls and injury falls reduction, as well as, other RAI-MDS 2.0 QI’s

**OPTIC study (NHs, EMS, EDs in AB and BC)**
- Link data on transitions (e.g., EMS, ED and return to nursing home times and transition outcomes) with RAI-MDS 2.0 QI’s

**SCOPE study (Quality & Safety in NHs: AB and BC)**
- Link RAI-MDS 2.0 QI’s to intervention and context
Staff Outcomes – links to context

- Burnout
- Health status
- Job satisfaction
- Career satisfaction
- Aggressive acts (TREC only)
2. To Guide KT Intervention Development
European Union Project (FIRE)

- Seventh Framework Program: Facilitating Implementation of Research Evidence (FIRE)

- Will explore and evaluate *facilitation* as a process for promoting the uptake of research evidence on continence promotion in clinical practice in long-term care

- Will be conducted in long-term care facilities in Ireland, Canada, Sweden, Netherlands

- The impact of context on the successful implementation of the facilitation intervention will be assessed

- ACT being used to measure context
OPTIC
(Older persons transitions in Care)

Mixed methods
• Qualitative interviews residents, families, providers
• Follow NH-ED transfers over one year using T3
• Link data on transitions with RAI-MDS 2.0 QI’s
• Develop OPTICS tool
SCOPE

- Aim is to improve the safety and quality of care to frail elderly Canadians living in nursing homes and to improve the quality of work life for direct caregivers.

- Will consist of an intervention composed of education on quality improvement techniques (Safer Healthcare Now) that will be tailored to context.

- Will be conducted in 8 nursing homes in Alberta and BC.

- ACT being used to measure context.
Applied Health Research Agenda
Improving Care and outcomes for Older Canadians

History

- Assembly of TREC group (Fall 2004)
- TROPIC grant submitted (Sept 2005)
- TROPIC grant started (Sept 2006)
- TREC grant submitted (Sept 2006)
- TREC grant started (April 2007)
- FIRE (EU 7th Fr’wk) grant submitted (Sept 2007)
- FIRE grant started (July 2008)
- OPTIC funded (Fall 2009)
- SCOPE funded (January 2010)
- PHSI to extend SCOPE (MPD in 2010 then grant)
- TREC renewal (2011)
KUSP - Knowledge Utilization Studies Program

KUSP is a funded health research program focusing on nursing and the social sciences. One of our particular areas of focus has been research utilization in the nursing profession. For more information on our program, please click on the links in the left-hand bar.
Questions

www.kusp.ualberta.ca