

Innovations in geriatric education and the knowledge-to-practice process in long-term care

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“Health professionals receive scant preparation in caring for frail seniors , have unperceived learning needs and often believe the myth that simple exposure to older people is a sufficient way of learning to provide care. “

(Ryan et al 2012)

Caring for frail seniors in acute care (Ryan & Kirst, 2005)

Emergency Care (Roethler et al, 2011)

Medical Clerkship (Diachun et al, 2010)

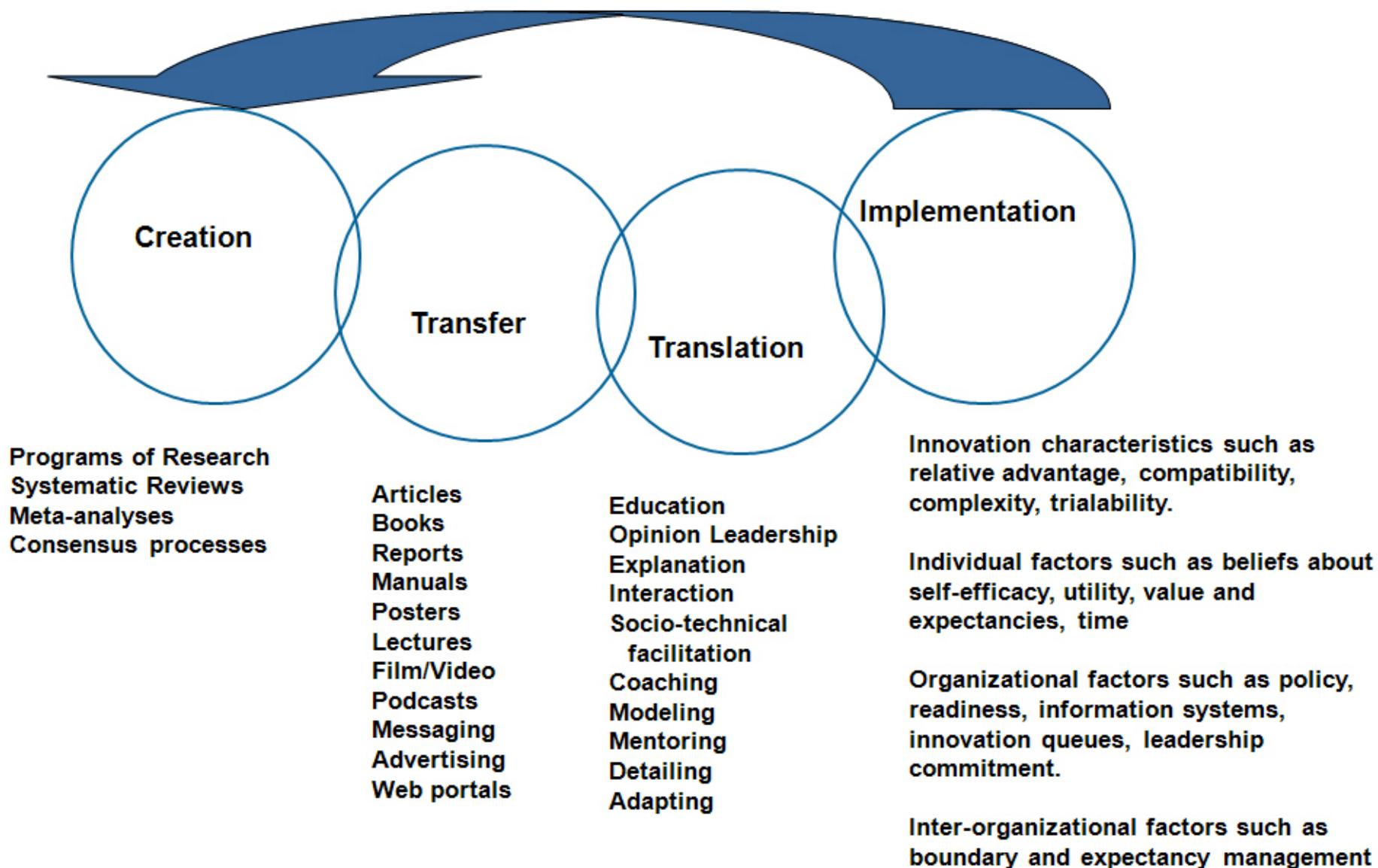
LTC end of life care (Brazil et al 2012)

Surgical skills (DeBlacam et al 2012)

Family members

Education is a complex process and there is no magic bullet

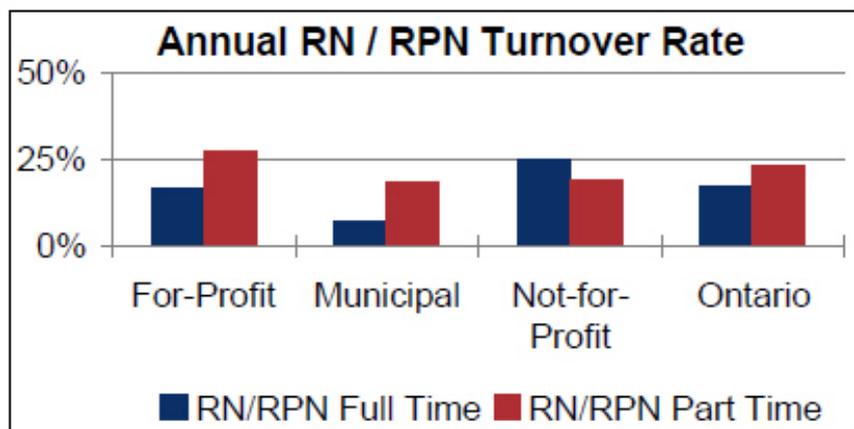
Figure 1. A Knowledge-to Practice-Process Framework



“There is an indisputable correlation between the number of nurses (RN, RPN and PSW) who provide direct care to residents on a daily bases (high “nurse staffing” levels) and high quality of care and quality of life for residents.” (Edelman and Harrington, 2009)

“In addition to staffing levels the report identifies “education, experience, skill mix, and leadership qualities” as factors affecting the quality of nursing care” (Edelman & Harrington quote from Canadian Health Services Research Foundation, 2006)

Annual turnover rates in 334 (54%) of Ontario LTCHomes (Wodchis et al 2007a)



Retention of FT nurses associated with municipal and larger homes, staff engagement in QI, QI culture, more BPG

Retention of PSWs associated with smaller homes, onsite education and training and BPG. (Wodchis et al 2007 b)

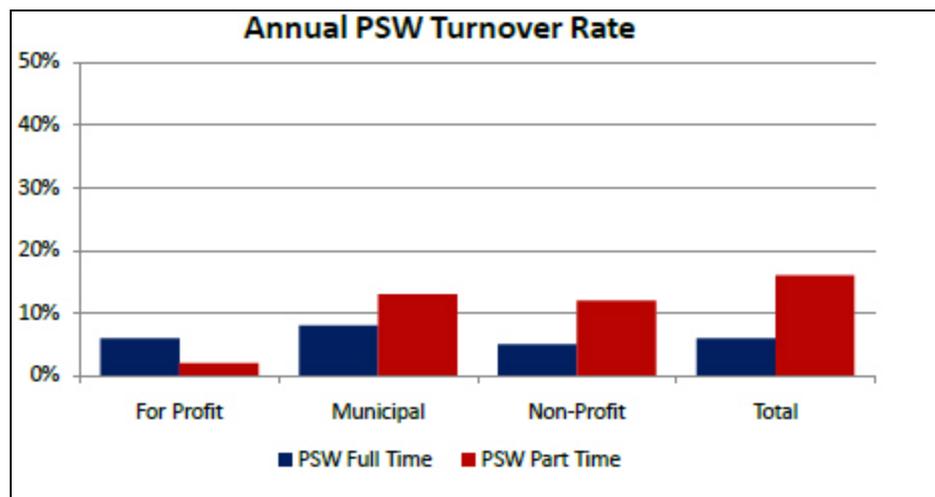


Table 2: Workplace violence in Nordic and Canadian long-term care facilities

Country	Staff subjected to violence by a resident or family member*				
	more or less every day	Weekly	Monthly	Less often	Never
Denmark	5.0%	10.3%	7.0%	43.0%	34.7%
Finland	8.1%	11.6%	10.5%	46.5%	23.3%
Norway	6.8%	10.7%	7.5%	45.2%	29.7%
Sweden	6.2%	13.3%	10.5%	43.0%	26.9%
Nordic Europe	6.6%	11.4%	8.8%	44.6%	28.6%
Canada	43.0%	23.1%	7.8%	15.8%	10.3%

*Note that the Nordic questionnaire likely over estimates the level of violence as it asks about violence *and* threats of violence. The Canadian questionnaire asks only about actual violence.

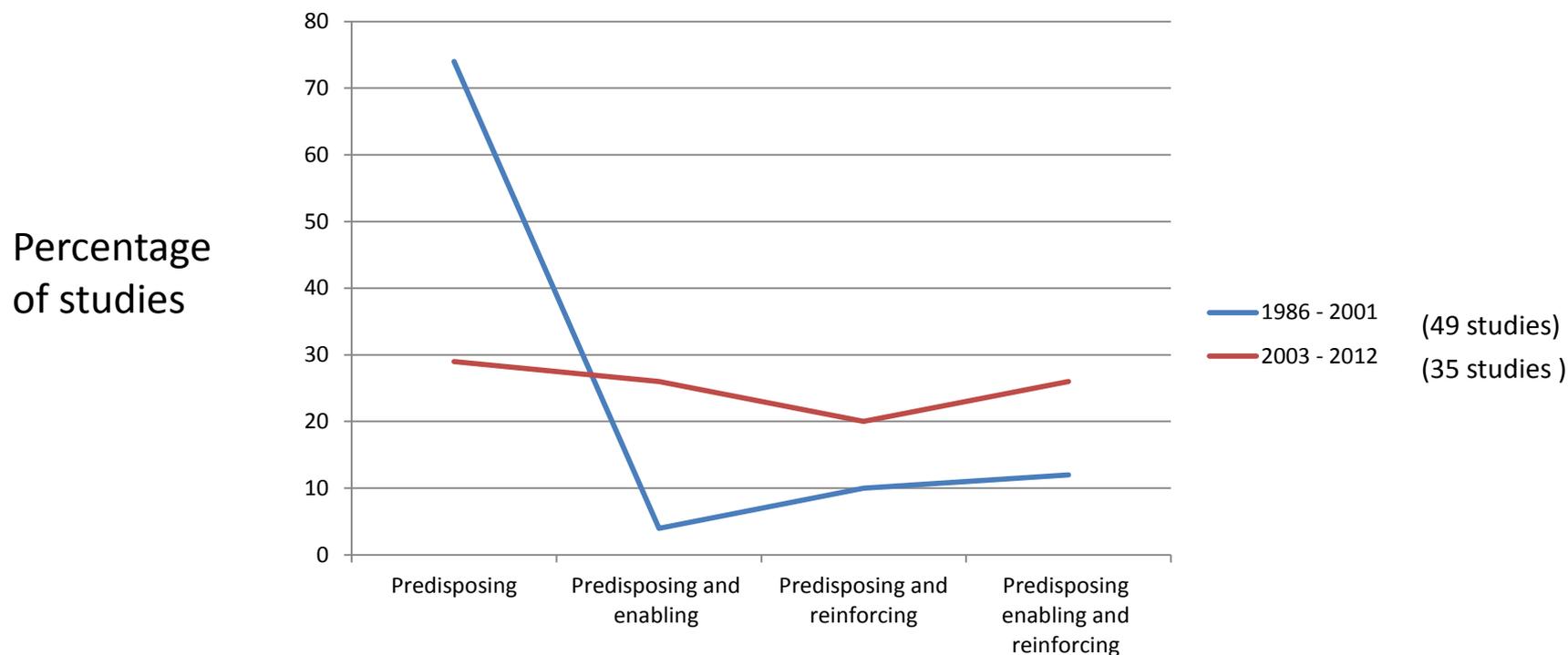
(From Bannerjee et al. 2008)

Effects of working in long-term care comparing Canada and Nordic Europe

	Canada	Nordic Europe
Not enough time to discuss difficulties	54%	22%
Unable to affect planning of days work	45%	24%
Left alone too often	38%	6%
Physical exhaustion	63%	29%
Mental exhaustion	44%	11%
Back Pain	36%	12%

(Source Bannerjee et al 2008)

Comparing educational designs before (using data from Aylward & Stolee et al 2003) and after (Ryan 2013) the introduction of knowledge-to-practice concepts



Educational design

(from Green et al. 1980, Davis et al. 1992, Aylward et al. 2003)

Effectiveness by design type 1989-2000/2003-2012

(based on the reviews Aylward et al. 2003; Ryan, 2013)

Design type	Training effectiveness		
	Positive (% type)	Uncertain	Negative
Predisposing (I)	18 (39%)	19	9
Predisposing and Enabling (II)	5 (45%)	2	4
Predisposing and Reinforcing (III)	6 (50%)	6	
Predisposing, enabling and reinforcing (IV)	10 (71%)	4	1
Total number of studies	39 (46%)	31	14

Educational research (Aylward et al 2003, Ryan, 2013): clinical topics

Dementia and Behavior	23	
Restraint	9	
Continence	5	
Oral Health	5	
Attitudes towards elderly	4	
Mental illness	3	
Infection control	3	
Medication Management	2	
Pressure ulcers	2	
Antibiotic prescribing	2	
Nutrition and weight loss	2	
Chronic Pain	2	
Restorative/rehab care	2	

Other topics Inhaler technique, nursing skills/satisfaction, cognitive impairment, bathing, fracture prevention, communication, diabetes, swallowing, fire safety, end of life care , geriatrics, hand hygiene

Rank order of subjective learning needs in psycho-geriatrics within GTA LTCHs

1. Depression assessment and treatment
2. Dementia assessment and treatment
3. Understanding agitation
4. Behavioral assessment and treatment
5. Anxiety in older people
6. Schizophrenia in older people
7. Developing effective care plans
8. Adapting the environment to help agitation
9. Psychotropic drugs and how they work
10. Managing work related stress
11. Caring for dying patients
12. Understanding and working with families
13. Assessing and helping people in pain
14. Delirium assessment and treatment
15. The activities of daily living and their effect on treatment
16. Knowing more about different cultures

Common Foci of Capacity Building in Geriatric Medicine by Nurse Led Outreach Teams

1. Hydration
2. UTI recognition
3. Pain
4. Fever in the elderly
5. Sepsis
6. INR, coagulation – what comes after pradax?
7. Medication interactions
8. Abdominal assessment - nausea and vomiting, abdominal sounds
9. Skin and skin tear assessment
10. Foley catheter insertions, care and maintenance
11. CHF, COPD and Asthma assessment
12. Advance care planning
13. Care and maintenance of G-tubes
14. Butterfly priming, flushing and documentation
15. I.M. injections
16. Pre-Post operative exercise routines
17. General assessment skills e.g. how to use a stethoscope
18. Critical thinking skills
19. Ability to recognize acute change of condition

From periphery to the core: introducing new staff to long-term care – RNs

(Burgess & D'Hondt, 2007)

RNs not prepared for the LTC nursing specialty (Kaasalainen et al 2006)

LTC career choice is greeted with skepticism (Hammers, 2004)

“In addition to providing nursing care for residents, nurses in LTC are expected to lead a team of health care staff, including personal support workers, who may have years more experience than the new graduate nurse. This can be a daunting and intimidating task for the new graduate who remains uncertain of his or her own clinical knowledge and decision -making skills.” (Burgess & D'Hondt, 2007)

Suggestions

1. Development LTC nursing specialty
2. Supportive Leadership
3. Interprofessional job shadowing
4. Consistent preceptor, mentor and coach
5. Avoid early night shift assignments if resource nurse is not available
6. Longer orientation period

Medical Directors have learning needs too (Bhaloo & Mithani, 2008)

Overview of LTC (legislation, policy)

Infection control

Role Clarification

Managing medical staff

Financial issues (eg budgets)

Leadership style and development

Quality Management

Union relations

Risk Management

Working with a team

Ethics in LTC

LTC Clinical Protocols

Working with families

Alternate dispute resolution

Managers have learning needs as well

Management turnover may be as high as 40%

Management turnover affects quality of care

Leadership training increases staff satisfaction and retention (Wilson, 2005)

Need more training in leadership and health team management (Dwyer, 2011)

Coaching and mentorship on regulatory process

Managing stress by developing a network

Business Planning

Understanding regulatory environment

HR and staff development

Issues in understanding learning needs

People don't know what they don't know

People who say they have a learning need know more than those who say they don't

Learning needs research is typically discipline specific

There are contextual variations (e.g. age, shift)

Determining whether the organization is ready

Innovative approaches to the identification of learning needs

Resident/family feedback

Care provider narratives

Practice reviews

Build-a-case

Critical incident technique

Simulation

Levels of evaluation in the reviewed research

Staff Attitudes	18	16%
Staff Knowledge	32	29%
Staff Behavior	38	34%
Resident Outcomes	24	21%

On knowledge transfer and evaluation

‘Evaluation might be the single most important strategy to ensure accountability and improve training transfer’ (Burke & Saks 2009)

“What gets measure gets done” (Burke & Huchins 2008)

“Use evaluation edumetrically” (Ryan et al 2012)

Of Kirkpatrick's four levels of evaluation the behavior and health outcomes evaluations are associated with higher levels of transfer than reactions and attitude evaluations. (Saks & Burke 2012)

When the knowledge-to-practice process concept drives change

1. Ontario's knowledge to practice process in dementia care

The Alzheimers Strategy

- Psychogeriatric Resource Consultants

- PIECES trained resources nurses

- Behavioral support teams within LTCHs

- U-First trained PSWs

- Attending physician training

- Montessori training for recreationists, sitters, families, housekeepers etc

- GPA training so everyone knows how to calm down

- Code white for when things go horribly wrong

Seniors Health Research Network communities of practice

Behavioral Supports Ontario

- BETSI tool to clarify organizational readiness

PIECES and GPA in the Emergency Department

PIECES and healthy workplace initiative Mt. Sinai

Along the continuum from standardized curriculum to emergent learning opportunity

Standardized

PIECES, UFirst, GPA
Montessori, Guidelines

Semi-standard /Adaptation

Collaborative needs A_x
(McAiney et al 2009)

Build your own toolbox
(Arnetz & Hasson 2007)

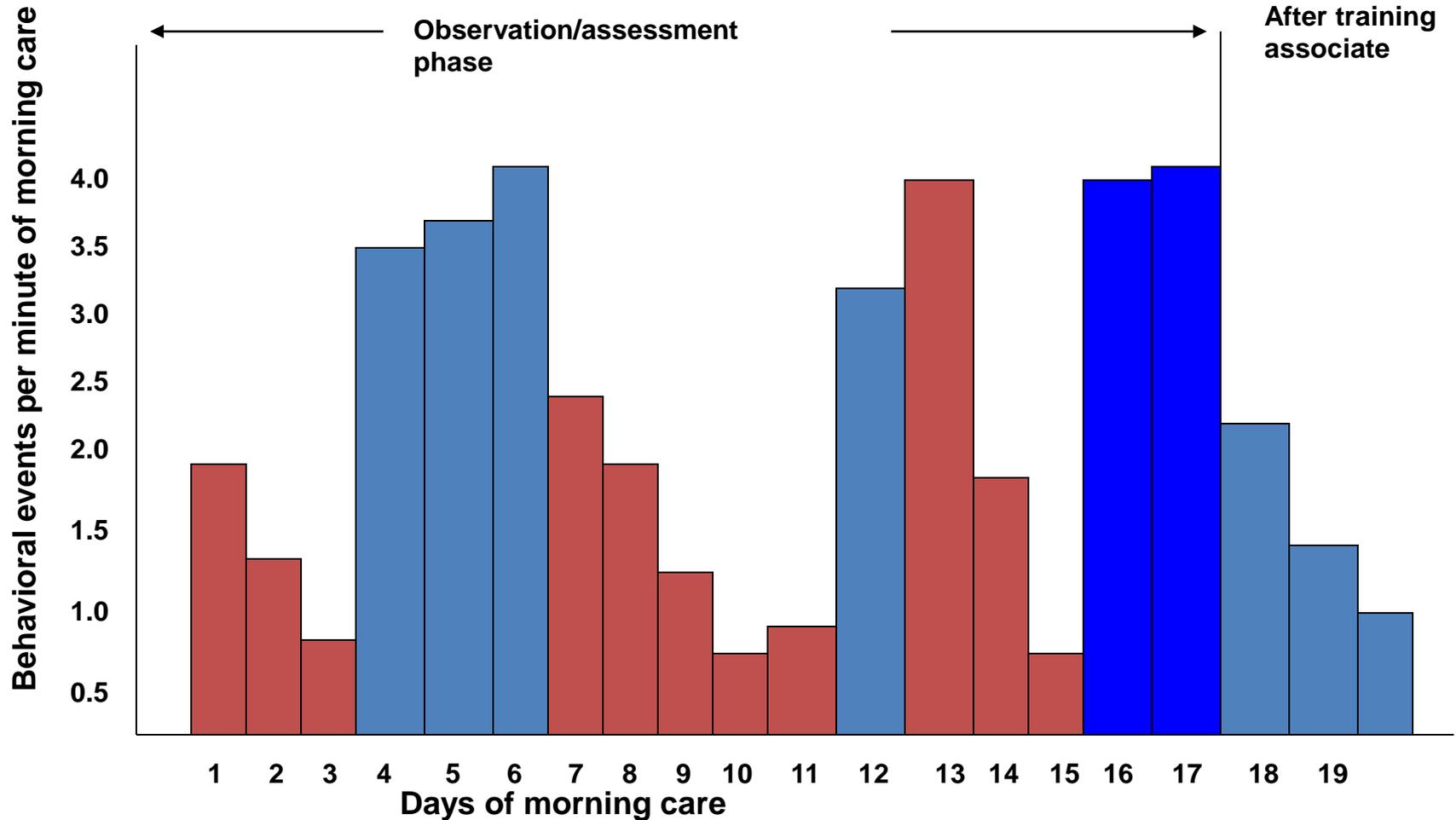
BPG adaptation

Emergent

Bedside coaching
Teachable moments

An instance of embedded knowledge and ktp

- Primary caregiver
- Associate
- Other caregiver



The primary caregiver of this resident with diffuse anoxic brain injury was doing something that worked but didn't know what. Behavioral observation revealed several things then focused on 'low turn frequency' and taught these to the associate on day 18

The implicit continuum of standardized curricula

PIECES – A framework for assessing and preventing responsive behaviors for RN's

U-First – A companion curriculum to PIECES for PSW's

GPA - A behavioral approach to managing responsive behavior when it emerges

Montessori – a curricula for those who spend recreational and visiting time

Code White – when everything goes wrong

PRC Program of Toronto Behavioral Support Team Training Pre/Post Knowledge Quiz

Program	Topics	Comparison	Means (sd)	t value	d.f.	Sig (2-tailed)
Day 1	PIECES 3 Ds U-First!	Day 1 pre Day 1 post	4.7 (1.57) 5.9 (1.45)	4.883	62	.000
Day 2	Behavioral support roles/ Developmental Disabilities	Day 2 pre Day 2 post	2.5 (1.08) 6.0 (1.45)	19.189	62	.000
Day 3	Acquired Brain Injury/communication/ Behavior assessment	Day 3 pre Day 3 post	3.7 (1.14) 4.1 (1.33)	5.835	62	.000
Day 4	Cycle of aggression/. Systemic response/ and Debrief	Day 4 pre Day 4 post	2.5 (1.33) 5.0 (1.53)	9.721	59	.000
		Total pre Total post	13.3 (3.11) 21.5 (3.42)	17.935	62	.000

Comparing limited and high success PIECES/PRP/PRC implementation homes

	Response options	
	Limited success	High success
Self assessed ratings of PIECES success	1.8	6.1
Frequency of use of in-house PRP	0.8	2.8
Performance of PRP	1.9	4.6
PRP aided planning/internal resources	0.6	2.6
PRP aided planning/external resources	0.6	2.3

From Stolee et al (2009) Sustained transfer of knowledge to practice in LTC

2. Delirium KTP intervention

“Our intervention incorporated the following features: targeting risk factors for delirium, a 'delirium practitioner' functioning as a facilitator, an education package for care home staff, staff working groups at each home to identify barriers to improving delirium care and to produce tailored solutions, a local champion identified from the working groups, consultation, liaison with other professionals, and audit or feedback. ”

(Siddiqi et al. 2008)

Process and outcome measures base-line/10 months (Siddiqi et al 2011)

• Number of drugs (1-day survey)	6.81/6.01
• Residents with cognitive tests in previous 6 mos	54%/74% *
• Resident hospital admission in previous month	6%/ 4% *
• Residents attending ED in previous month	2%/ 8% *
• Urgent GP consults in previous month	45%/36% *
• Falls ratio	29/16 *
• Antibiotic prescriptions ratio	25/17 *
• Residents with delirium episode recorded	7%/11% *

- Note * indicates $p < .05$

3. Mobility KTP intervention in long term care (Rosemond & Mercer 2002)

Implementation team led by the director of nursing and two nursing supervisors
The initiative was conceptualized as a change in organizational culture

Seven 'mobility magic' educational modules

- Program overview, introducing a mobility culture

- The impact of inactivity

- Aging simulations

- Integrating mobility techniques into bed and bath care

- Integrating mobility into wheelchair use

- Increasing the activity level of staff

- Module review and unit based implementation planning

Transfer Clinics at change of shift where nursing aids were able to discuss cases and make care planning decisions. Peer mentoring program

Mobility Kardex enhances communication

Mobility in Action - a weekly posting of tips on successful innovations, mobility messages on pay stubs .

Mobility Pearls – weekly management meetings for program review, identify and remove barriers (eg change old equipment) , test management knowledge , review mgmt role modelling and build a system of rewards.

Information technology and the KTP process: EMR

What is needed (Phillips et al. 2010)

Access to extensive patient history information

Descriptive patient information

Communication among providers

Facilitation of integrated care

Cost benefits

What can be achieved

LTC EMR no paper, data entry points everywhere, integrates almost everyone's information

Saved 4.745 hours of nursing hours in dispensing time

Reduced medication errors, avoided missed treatments

Enhanced staff productivity by 2,300 hrs

Most important training need

Socio-technical facilitation

There are many excellent online learning resources but still no magic bullet

The RNAO best practices toolkit for long-term care

<http://ltctoolkit.rnao.ca/content/introduction>

The Brock University Nursing Education Wiki

http://kumu.brocku.ca/geriatricnursingeducation/Main_Page

Training and e-learning from the Alzheimer's Society

<http://www.alzheimer.ca/en/on/About-dementia/For-health-care-professionals/Training-and-e-learning>

The Seniors Health Research Network <http://www.shrtn.on.ca/>

The Ontario Telehealth Network <http://otn.ca/en>

Information technology and the KTP process: Simulation



Geriatric mannikins to assist in the recovery of lost skills, the maintenance of skills for lower frequency events, and the learning of new skills

e.g. IV, catheter, G-tube, wound

Information technology and the KTP process: Ubiquitous computing



Caregivers as cyborgs

Engaging the shadow workforce: family caregivers and health care teams

The distinction between “formal” and “informal” care giving does not reflect the reality of the work of many family caregivers who are often:

1. Geriatric Case Managers
2. Mobile medical records
3. Service gap fillers
4. Continuous care providers
5. Acute change of condition monitors
6. Paramedic service providers
7. Quality Control experts
8. Inter-organizational boundary crossers
9. Continuing medical education students

(From Brookman & Harrington: 2007)

Family Caregivers: why the shadow workforce and team player

We underestimate the amount and value of family care giving - \$90 billion (Brown 2010) .

We underestimate the sophistication of family care giving that is required (Brookman & Harrington, 2007)

We understate the quality of family caregivers contributions. Instead of saying “two thirds are correct” we say “Surrogates incorrectly predict patients’ treatment preferences in one-third of cases” (Shalowitz et al 2006, cited in Kirchoff et al 2010)

We need a simple model for understanding family engagement

Moderators of continuing education outcomes in long-term care homes (Stolee et al 2005)

1. Management support
2. Sufficient resources to implement new learning
3. Learners belief's about the practicality of training
4. Learning integrated into ongoing practice
5. Staff feeling valued
6. On the job reinforcement of training
7. Knowing that change of practice is supported
8. Seeing benefits of new approaches
9. Attitudes towards the elderly population
10. Knowing patient care will be completed while taking training

Enablers from Siddiqi 2008 and others

- Prepare organizational readiness
- It's the organization that learns
- Realistic expectations of time to achieve outcomes
- Continuing process evaluation (CQI) before summative evaluation
- Attitudes/knowledge at the beginning behavior/outcomes at the end
- Flexibility – timing, lengths, group size
- Involvement of all staff
- Understand learning needs at an individual level
- Tailoring to individual homes
- Provide between session tasks
- Developing pride through primary and secondary rewards
- Encourage stretch targets but do not punish failure to stretch
- Cascading support LHINs, DoCs, managers, staff
- Minimize extra work and manage competing demands
- Integrate KTP at the point of care in EMR
- Respect implicit/embedded knowledge arising from proximity and relationships
- Engage informal as well as formal opinion leaders
- Respect diverse learning styles
- Engage residents and families



That's all for now

Goodnight Irene

For Workshop Slides
<http://prcp.rgp.toronto.on.ca/prcp-toolkit-and-libraries>

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