Improving Occupational Performance for Clients Living in Long Term Care

Aruna Mitra B.Sc.OT, M.Ed [1], Steven Friesen MEDes[1,3]
Bethany Care Society[1], University of Alberta[3]

ARP Program

The *Bethany Care Society Occupational Therapy Service Model* was developed as part of a quality improvement project. The model provides a foundational framework from which an active rehabilitation approach could be implemented. The goal was to better meet the needs of our residents using an evidence informed, systematic approach to rehabilitation thereby improving occupational performance and quality of life. The model also provided therapists with clear guidelines for conducting an active rehabilitation program.

Introduction

- The number of people with dementia living in long term care is increasing; Alberta 23.2% in 1990 to 60% in 2014/15.
- For residents living in long term care, decreasing mobility and increasing dependency are known to have many adverse effects
  - •increased incidence of pressure sores, contractures, cardiovascular deconditioning, urinary infections, and loss of independence
- Rehab programs can significantly improve cognitive and ADL functioning of people in long term care with dementia (Telenius et al., 2015)
- Physical function and balance improvements have been demonstrated in short (4-wk) task-oriented ambulation training for long-term care residents (Tsaih et al., 2012)
- Longer term (3-mth) occupational therapy and physiotherapy however has indicated no significant effect on mobility and independence (Sackley et al., 2009)

> "*Evidence that physical rehabilitation interventions for elderly people residing in long-term care may be both safe and effective, improving physical and possibly mental state. However, the size and duration of the effects of physical rehabilitation interventions are unclear. Although physical rehabilitation may be beneficial for care-home residents, the specific type(s) with most benefit, and how these relate to resident characteristics, is unclear*." 2013 Cochrane review, Physical rehabilitation for older people in long-term care.

.

- 88% of Canadian LTC residents do not receive any rehab and less than 1% of residents received 150 minutes 5 days per week (McArthur et al., 2013)
- Long term care residents spend the majority of their time inactive, with low levels of interaction with staff (Sackley's, 2006)
- While occupational therapists working in long-term care homes focus on resident needs, an outcome of OT service intervention can be the reduction of nursing staff requirement for day to day resident care. (OSOT, 2015)
- Since fully implementing ARP in April 2012, many of our clinicians reported that rehabilitation approaches are positively impacting occupational performance beyond physical function

Method

Assessment Data

- RAI MDS 2.0 outcome scores were selected by clinical leaders to examine impacts of participation in rehabilitation programs in long term care (e.g. level of independence in ADLS, social participation, symptoms of depression and skin integrity).
- Outcome scores were extracted for all long term care residents who;
  - •had at least two Long Term Care RAI assessments completed between April 2012-March 2016;
  - •met the criteria for Rehab RUG (Resource Utilization Group);
  - •received ≥150 minutes per week of rehab services (OT/PT)

Chart Review

- Chart reviews were conducted for residents whose scores had changed during ARP participation and for residents that rehab staff observed increased occupational performance
- Chart reviews examined care plan goals, therapy program details, ADL Kardex, and therapy minute documentation.
- Specific therapist assessment tools (e.g. BERG, TUG) were not included in this review.

Staff Interviews

- Unstructured interviews were conducted with clinical staff (case managers, rehab therapists) to relate and detail impacts of ARP to specific residents

Bethany Active Rehabilitation Programs (ARP)

Program	Goal	Schedule/ Duration
"Goal to Stroll"	Improve physical and emotional aspects of functional mobility (ambulation and wheelchair mobility)	3-5 times/week 30 min session (min) 1:1 or group
"Pump Up the Power"	Improve functional strength, ability to transfer and participate in Activities of Daily Living (ADLs)	2-5 times/week 30 minutes. Group
"Stretch & Flex"	Prevent further decline of ROM in order to provide ease of care and/or reduced pain.	30 minutes 1:1 or Group
"Healthy Minds"	Mediate further decline in cognitive ability, improve symptoms of depression and anxiety and improve performance in ADLs for some residents.	2 week program 30 min session Group
Therapy assistant run, therapist monitored & reassessments quarterly *Groups 1:4 Staff/ Resident ratio*		

Objective

Using a case based approach, we intended to document the impact of implementing a rehabilitation approach for seniors and young adults with mobility, strength and cognitive limitations living in long term care. Our program review was guided by the following questions:

1. *How can the impact of rehabilitation services (OT/PT) be demonstrated and measured in long term care ?*
2. *Can the impact of a structured active rehabilitation program be effectively demonstrated in RAI MDS outputs (e.g. outcome scores)?*

Results: Occupational Performance

SELF CARE

It makes such a difference for him. He can transfer onto the toilet himself, he does not have to wait 15-20 minutes for a staff member. It's dignified.

She was in a BRODA chair during the day (to off load pressure area). She started with 2 wheeled walker, 2 assistants and went 20 meters. She now walks 100-200 meters with the walker and is working on 1 person standing transfers. Her pressure ulcer is healing.

He went from a Golvo lift to transferring independently with a saska pole. He's starting to walk in the parallel bars. His leg strength definitely has improved.

PRODUCTIVITY ROLE

She is intact cognitively, but struggles emotionally and had poor social skills. She stayed in her room, didn't socialize or engage much. She now participates in the cognitive group. It has had an impact. She has someone to share stories with and made a friend. When her friend was dying she wanted to go to see her. Afterwards she said "I was a good support for her. I was a good friend. I was there to support her.

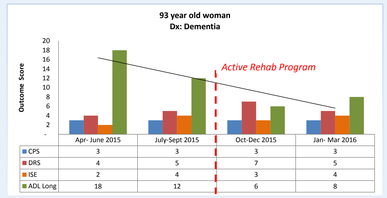
LEISURE

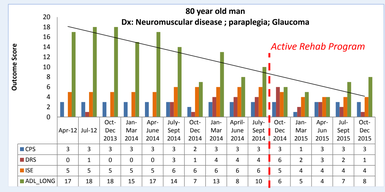
It made a HUGE different for her. She was always tearful, worrying about where her family was, staff would have to reassure and redirect her. She would sit, not engage or participate. Now she seeks out others residents for social contact on her own. She looks forward to the cognitive group. The staff spend less time redirecting her.

Results: Outcome Scores

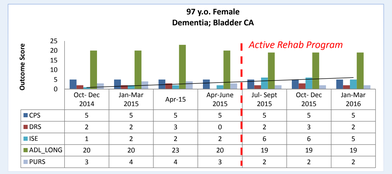
- 355 residents across 6 LTC sites participated in ARP from April 2012- March 2016 (based on Rehab RUG #'s)
- 14 charts were examined. The minimum length of participation was 5 months; The maximum was 21 months (M=15.6 SD=4.6)
- Five themes reflected in outcomes scores include:

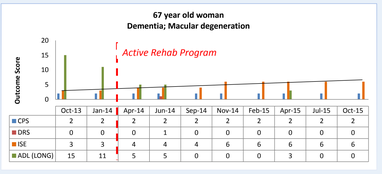
Theme 1: ADL score improved during ARP involvement



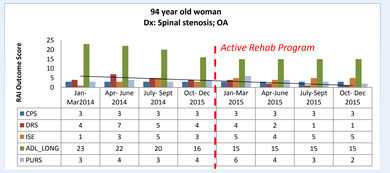


Theme 2: Index of Social Engagement (ISE) score improved during ARP involvement

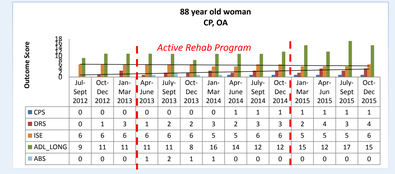




Theme 4: Aggressive Behaviour Scale improved



Theme 5: Observed clinical change not reflected in score change



Summary of Findings

- The focus in long term care tends to be on enhancing quality of life rather than promoting independence or working toward discharge to another setting.
- Although RAI outcome scores suggest examples of positive impacts of active rehab they don't tell the whole story.
  - Positive changes in outcome scores were seen in many residents but not all
  - Some residents who were reported to have improved function from ARP participation, with no significant changes reflected in outcome scores
- A more complete picture of the impact of rehabilitation on occupational performance requires broader data sources such as interviews with residents, families and staff

Implications

A rehabilitation approach to programs provided to long term care residents may have impacts not clearly indicated using current assessment tools (e.g. RAI-MDS 2.0). This program review suggests the importance of more extensive and longer term measures when considering impacts on occupational performance.

bethany®
CREATING CARING COMMUNITIES

References

Crocker T, Forster A, Young J, Brown L, Ozer S, Smith J, Green J, Hardy J, Burns E, Glidewell E, Greenwood DC. *Physical rehabilitation for older people in long-term care.* Cochrane Database of Systematic Reviews 2013, Issue 2. Art. No.: CD004294. DOI: 10.1002/14651858.CD004294.pub3

Forbes D, Theissen EJ, Blake CM, Forbes SC, Forbes S. *Exercise Programs for people with dementia.* Cochrane Database of Systematic Reviews *2013, Issue 12. Art. No.:CD006489. DOI: 10.1002/14651858. CD006489.pub3.*

McArthur C, Hirdes J, Berg K, Giangregorio L. *Who Receives Rehabilitation in Canadian Long-Term Care Facilities? A Cross-Sectional Study.* Physiotherapy Canada*. 2015; 67 (2): 113-21.*

OSOT, *Occupational Therapy in Long Term Care homes: Strategies to achieve capacity and meet resident needs,* OSOT Submission to Ministry of Health & Long-Term Care - March 2015, www.ocot.on.ca

Sackley C, Wade DT, Mant D, Atkinson JC, Yudkin P, Cardoso K, et al. *Cluster randomized pilot controlled trial of an occupational therapy intervention for residents with stroke in UK care homes*. Stroke 2006;37(9):2336-41.

Sackley C., van den Berg, M., Lett, K. Patel, S., Hollands, S., Wright, C., Hoppitt, T. *Effects of a physiotherapy and occupational therapy intervention on mobility and activity in care home residents: a cluster randomised controlled trial* BMJ 2009 2009;339:b3123.

Telenius EW, Engedal K, Bergland A. *Effect of a High-Intensity Exercise Program on Physical Function and Mental Health in Nursing Home Residents with Dementia: An Assessor Blinded Randomized Controlled Trial.* Cameron DW, ed. PLoS ONE. 2015;10(5):e0126102. doi:10.1371/journal.pone.0126102.