Promoting the Health of Community-Living Older Adults with Multiple Chronic Conditions through Nurse-Led Interventions: A Program of Research

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Scientific Director, Aging, Community and Health Research Unit

Nursing Research Seminars
School of Nursing, McMaster University
April 6, 2015
Starting with Passion

- What are you **passionate** about?

Passionate about older adults and family caregivers

Passionate about building **research capacity**: students, junior faculty, clinicians
Starting with Passion

- What are funders and decision-makers passionate about?
- What are the current policy and funding priorities?
- What are goals and priorities of the University?
Building on Past Experiences

- Working as a staff nurse in the Cardiac Care Unit
- Working as a visiting nurse, including home visiting to older adults
- Working as a Clinical Nurse Specialist in Cardiovascular Medicine, including a focus on older adults
- Working as a home care case manager, including a focus on older adults
- Working as a manager of an inpatient Geriatric Assessment Program
- Working as a manager of a visiting nursing program
- Working as faculty at McMaster University
Building on Past Research

**Master’s thesis:** social support in the early discharge phase for post-MI patients

**PhD dissertation:** nursing health promotion intervention for frail older home care clients

**Other studies:**
- Interprofessional (IP) nurse-led team approach to fall prevention for frail older home care clients
- IP nurse-led team approach to stroke rehabilitation in home care
- IP nurse-led mental health promotion intervention for older home care clients
- IP nurse-led self-management support intervention for community-living older adults with Type 2 diabetes
- Support for caregivers of persons with dementia
Building on Previous Relationships

- Community partners involved in my previous research
- Grant review panels: CIHR, Alzheimer’s Society of Canada
- Editorial position with CJA
- Colleagues I met at conferences
- Contacts made through my Ontario Ministry of Health and Long-Term Care Career Scientist Award: Aging at Home Strategy
Other Building Blocks

- Ontario Ministry of Health and Long-Term Care Career Scientist Award (2004-2009): ‘The needs, effects and costs of alternative approaches to the care of older persons with chronic needs and their informal caregivers requiring home care services’

- Publications and presentations
Research Mentorship
Research Program Goal

- To determine the **feasibility** and **acceptability** of new interprofessional nurse-led health promotion interventions, and to explore their **effects** on health-related quality of life in community-living older adults with multiple (3 or more) chronic conditions
In 2012, Dr. Maureen Markle-Reid was awarded the Canadian Institutes of Health Research (CIHR) Tier 2 Canada Research Chair in Aging, Chronic Disease and Health Promotion Interventions, valued at $500,000, for a period of five years.

This funding, matched by the McMaster University School of Nursing, will allow Dr. Markle-Reid to conduct research focused on promoting optimal aging at home for older adults with multiple (three or more) chronic conditions and to support their family caregivers.

To achieve this, Dr. Markle-Reid will design, evaluate and translate new and innovative community-based interventions to improve access to health care, quality of life, and health outcomes in this population, while reducing the demand for expensive health services, like hospital admissions.
Acknowledgements

- CIHR Canada Research Chair Program (2012-2017)
- School of Nursing, McMaster University
Programmatic Research Objectives

1) Design innovative, interprofessional (IP) nurse-led health promotion interventions to promote optimal aging at home for older adults with MCC

2) Examine the feasibility and acceptability of the newly designed interventions

3) Determine the comparative effects of the newly designed intervention and existing services on health-related quality of life (QOL) and costs
Programmatic Research Objectives

4) Determine the most appropriate combination of intervention components, dose, and provider type required for the achievement of optimal outcomes.

5) Implement diverse strategies for translating the findings and improving practices and policies related to caring for older adults with MCC.

6) Build research capacity in the field of IP nurse-led health promotion interventions for older adults with MCC.
1. An IP Nurse-Led, Self-Management Support Intervention for Community-Living Older Adults with Type 2 Diabetes and MCC

2. An IP Nurse-Led Team Approach to Community-Based Stroke Rehabilitation for Stroke Survivors with MCC Using Home Care

3. Mobile Health Technology to Support Community-Based Stroke Rehabilitation for Stroke Survivors with MCC Using Home Care

4. Collaborative leadership and knowledge translation practices used by Public Health to engage community service providers in fall prevention
Research Environment

- Aging, Community and Health Research Unit, McMaster University
- Launched in 2012
- Funding from CIHR and the Ontario Ministry of Health and Long-Term Care
- Purpose: to promote optimal aging at home for older adults with multiple chronic conditions (MCC) and to support their family caregivers
- Involves:
  - Eight interrelated studies;
  - An integrated knowledge transfer strategy
  - A capacity building strategy
What steps were involved in developing the program?

- Support for grant development
- Built on existing relationships and partnerships
- Built on previous research
- Demonstrate that research is innovative and significant (aligned with funder and community partner priorities)
<table>
<thead>
<tr>
<th>Strategic Priority Research Areas</th>
<th>Anticipated Outcomes and Impact by Proposed Research Program</th>
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<tbody>
<tr>
<td><strong>Nursing Research</strong></td>
<td>Inform the role of nurses within an IP and intersectoral team in the prevention and management of MCC in the community</td>
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<td><strong>Seniors’ Care</strong></td>
<td>Understand the prevalence, correlates and costs of MCC; use person- and family-centred approaches to care; engage providers, clients and families in designing, implementing and translating effective interventions; increase access to in-home visits from health care professionals for vulnerable seniors; increase support for self-management of chronic conditions; design and evaluate strategies to improve caregivers’ health outcomes and access to health care</td>
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</tbody>
</table>
What steps were involved in developing the program?

- Topic fits with the University’s strategic research plan
- Secured institutional support
- Defined projects in collaboration with researchers and community partners
- Defined the overarching framework and the threads that tied together individual projects
- Selected projects that tied in with the overall framework
Threads that tie the research program together

- Cross-cutting themes
- Common approaches
- Inter-related conceptual frameworks
- Common outcomes
<table>
<thead>
<tr>
<th>Theme</th>
<th>Study 1</th>
<th>Study 2</th>
<th>Study 3</th>
<th>Study 4</th>
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<td>Prevention and management of MCC</td>
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<td>Inequities in access to community-based services</td>
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<td>Person and family-centered approaches to community-based care</td>
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<td>Gender sensitive approaches</td>
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<td>Social determinants of health</td>
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<td>Support for family caregivers of persons with MCC</td>
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<td>Self-management support</td>
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<td>Interprofessional team-based approaches to community-based care</td>
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<td>Volunteer-based peer support</td>
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<td>Application of relevant technologies</td>
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<td>Capacity Building</td>
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Common approaches

- MRC guidelines for developing complex interventions
- Pragmatic randomized controlled trial
- Mixed-methods design
Inter-Related Conceptual Frameworks Underlying Research Program

- Vulnerability model (Markle-Reid)
- Social cognitive theory (Bandura)
- Self-efficacy (Bandura)
- Normalization process theory (May et al)
- Developmental evaluation (Patton)
- Theoretical works on “tailored interventions” and steps of intervention design (Bartholomew, Sidani, Whittemore & Grey)
Programmatic Outcomes

- Feasibility of the intervention
- Acceptability of the intervention
- Effect of the intervention:
  - Health-related quality of life
  - Costs of use of health services, from a societal perspective
## Expected Impact

| Access | • More **coordinated care for patients** with complex medical conditions  
• Expanding scope/removing barriers to full practice  
• **Easy access to best practices** for management of MCC, thereby promoting evidence-informed, client-centred care |
| Connect | • Transforming home and community care- **improved communication between providers**  
• Improvements for personal support workers  
• Expanding patient engagement |
| Inform | • Supporting patients - **providing education, information** and **transparency** needed to make the decisions about their health |
| Protect | • More **innovative approaches based on evidence**  
• **Reducing potential safety gaps** |

(Patients First: Action Plan for Health Care, 2015)
Capacity Building

Capacity building and mentorship is a key component

- Undergraduate
- Graduate
- Post graduate
- New investigators
- Clinicians
Capacity Building

Opportunities for students to:

- Volunteer
- Complete course requirements
- Participate in research activities as RAs
- Take on a part of one study as part of their thesis
- Develop a proposal that builds on the existing research projects
Capacity Building
Capacity Building


Objective:

➢ To examine the theoretical basis for the development, evaluation and translation of complex nurse-led interventions
Topics to be addressed

- The steps of intervention design
- Implementation of an intervention
- Evaluating an intervention
- Translation of effective interventions into practice
### Canada Research Chair Seminar Series

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<th>Date, Time/Location</th>
<th>Title</th>
<th>Presenter</th>
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<tbody>
<tr>
<td><strong>Tuesday, October 28, 2014</strong> 12:00 – 1:00 pm Room HSC 3H41</td>
<td>Evaluating Intervention Fidelity in Complex Community-Based Interventions</td>
<td>Dr. Maureen Markle-Reid</td>
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<tr>
<td><strong>Tuesday, January 20, 2015</strong> 12:00 – 1:00 pm Room: TBD</td>
<td>The Essentials of Pilot Studies: The What, Why and How</td>
<td>Dr. Lehana Thabane</td>
</tr>
<tr>
<td><strong>Tuesday, March 3, 2015</strong> 12:00 – 1:00 pm Room: TBD</td>
<td>Designing Complex Community-based Interventions for Older Adults</td>
<td>Dr. Holly Reimer</td>
</tr>
<tr>
<td><strong>Tuesday, May 5, 2015</strong> 12:00 – 1:00 pm Room: TBD</td>
<td>Mixed Methods in Health Intervention Research: Traditions, Myths and Strategies</td>
<td>Dr. Kathy Fisher</td>
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Integrated Knowledge Translation

Annual KT events: Ministry, CIHR
Stakeholder meetings 2x per year
Quarterly meetings with Ministry
Communication plan for each study: publications, presentations, newsletters, infographs, policy briefs, final report, videos, media and press releases
Social Media: website, email blasts, Twitter, Facebook
Lessons Learned

Plan ahead:
- Meetings with dean, others to obtain institutional support
- Meetings with faculty, others to learn about research at McMaster in your area of study
- Meetings with community and decision-maker partners early in plan development
- Conduct small pilot projects as a foundation
- Apply for funding for projects
- Get feedback
- Persevere