Practice & Research in Nursing Group
Faculty of Health Sciences, Queen’s University

Annual Report 2004

Directors:
JM Medves, RN PhD, MB Harrison, RN PhD & JE Tranmer, RN PhD
Executive Summary

The Practice and Research in Nursing (PRN) group is pleased to report on activities in 2004, its first full year of operation. In summary, PRN has been successful with new funding, capacity building in nursing research in Kingston, and acquiring support for graduate students.

The PRN group is housed in two locations, 78 Barrie Street on the second and third floors and the Nursing Research Unit based at the Clinical Research Centre, Kingston General Hospital. In 2004, the PRN group expanded its membership from its three founding members (Drs Jennifer Medves, Dr Margaret Harrison, and Dr Joan Tranmer) to include eight research associates, all of whom are working with PRN on funded studies. The research associates include Dr Marianne Lamb, Dr Elizabeth VanDenKerkhof, Dr Judy DeWolfe, Dr Diane Buchanan, Catherine Perkin, Susan Laschinger, Cheryl Pulling, and Judy Plourde. The graduate students supervised and financially supported by the group increased. In total ten students were provided support from the PRN group. Fairleigh Seaton also received $20,000 in graduate funding from the University of Toronto/McMaster University Indigenous Health Research Development Program Graduate Scholarship, funded by the Canadian Institutes of Health Research-Institute of Aboriginal Peoples Health. Meredith Harvey, a third year nursing student, received a summer studentship from CIHR in 2004 to work with PRN.

Our major research initiative in 2004, the Queen’s Joanna Briggs Collaboration (QJBC), received Ministry of Health funding. The initiative is a 3-year demonstration project and implementation research study on which the PRN Scientists, together with Dr. M. Lamb, are investigators. Dr Harrison serves as Director of QJBC. QJBC was launched in May 2004 as the first North American site. The Joanna Briggs Institute is an Australian nursing initiative that links clinical practice and research in nursing to promote evidence based practice. One goal of QJBC is to conduct at least one systematic review per year on nursing issues that will enhance clinical practice recommendations. The systematic review topic for 2004-5 is The psychosocial and spiritual experience of elderly individuals recovering from stroke and is being completed by Drs Lamb, Buchanan and Harrison.

Another major PRN initiative has been to undertake an integrative systematic review with the international Cochrane Collaboration. This initiative is housed with the Evidence for Practice and Organization of Care (EPOC), and is entitled, Group.Effectiveness of Guideline Implementation in Nursing and Professions Allied to Medicine. Dr. Margaret Harrison is first author.

Over the past year, PRN has developed a solid outreach with the practice community. The PRN web site became fully functional in 2004 and contains information about the
group, links to other research groups within Kingston, and fellowships and other research opportunities with group members. Lunch and learn opportunities were organized for nurses to engage in research and philosophy of nursing discourse.

Our work is also apparent in the peer-review literature. In 2004, 11 manuscripts were published, 5 are ‘in press, and 7 are under review in peer-reviewed journals. Sixteen presentations were delivered at conferences, and five invited presentations were presented.

Eleven new research grants were received in 2004. In total, PRN scientists are engaged in 25 research projects – 12 as Principal Investigators ($3,284,743 in funding) and 13 as co-investigators ($4,956,109 funding). A further $1 million in grants are currently under review.

The PRN group is guided in strategic direction by an advisory committee. The following are members of the advisory committee

Chair: Dr Marianne Lamb
External Member: Dr Judith Ritchie
Committee Members: Dr Samuel Shortt
Dr Samuel Ludwin
Dr William Mackillop
Ms Marnie Dahl
Ms Lenora Duhn
Ms Eleanor Rivoire
Ms Patti Staples
Ms Linda Robb-Blenderman
Ms Sandra Crocker
Annual Report 2004

The Practice and Research in Nursing (PRN) group was formed in January 2003 by bringing together three career scientists, all of whom had PhD’s in nursing from Canadian Universities, with the mandate to build capacity for nursing research in the Kingston area. The strategic plan of the PRN group recognizes and acknowledges the plans and activities of our partner institutions in the Southeastern Ontario Academic Health Science Centre (SEOHSC) and the research plans and activities of the Faculty of Health Sciences. Our key goal is to build upon the strengths and linkages with the academic health science centre (HSC) and to create a focus of nursing research excellence relevant to both nursing discipline and practice.

The Strategic priorities are to:
1) Establish and maintain an organizational structure to support the research, knowledge translation and training activities of the PRN group;
2) Lead and conduct programs of innovative research to address health service issues of relevance to the discipline and practice of Nursing;
3) Lead and conduct research and scholarly activities that contribute to the science of knowledge translation;
4) Develop, create and support educational and training opportunities for undergraduate and graduate nursing students, and practicing nurses;
5) Communicate and market PRN activities locally, nationally and internationally.

Each nurse scientist has a distinct programme of research, but there are significant overlaps since all are involved in producing evidence for direct use in practice, research directions. Initiatives are driven by practice issues and the science of knowledge transfer is a fundamental component of their research programmes. The PRN group sought and received approval from the Queen’s University Advisory Research Committee (ARC) to officially constitute a group and for this received support from the Faculty of Health Sciences. Research space was approved and provided by the Faculty of Health Sciences. The group became active in September 2003. The PRN group provides a yearly annual report to ARC and to the Faculty of Health Sciences, the School of Nursing, and the regional Nursing Research Council. This report provides an update of activities in 2004 as well as challenges experienced and directions for the future.

Dr Jennifer Medves acted as Director for the PRN group in 2004. Her continued appointment will be reviewed by the advisory committee in January 2005. Valerie Angus has provided administration assistance, including budget administration. From May to July 2004, Jennifer Complin was hired to provide part-time secretarial support to the group. A permanent part time position was created in November 2004 and is ably filled by Victoria MacDonald. A CIHR undergraduate summer studentship was provided to Meredith Harvey, a third year nursing student, and a PRN summer studentship was provided to nursing graduate student, Fairleigh Seaton RN. Christina Godfrey RN and Lisa Smith RN were hired for the Queen’s Joanna Briggs Collaboration as Review Coordinator and Project Officer, respectively.
Drs Medves and Harrison maintain research offices at 78 Barrie Street. As well, office space is occupied by Valerie Angus, Victoria MacDonald, Christina Godfrey, and Lisa Smith, and the PRN administration office. Graduate students supervised by the PRN Scientists are provided with office space on the third floor, and "swing space" is available for undergraduate nursing students. Dr Joan Tranmer conducts her programme of research from the Nursing Research Unit based at the Clinical Research Centre, Kingston General Hospital. As with many research programmes at Queen’s University, securing space is an ongoing issue and, if the PRN group increases in capacity, space will be a problem in the foreseeable future. The long term plan for the School of Nursing is to move to new or renovated space at Queen’s University with the PRN group in the same building. This would allow the PRN group to be more visible to nursing students, for PRN resources to be more accessible to nursing faculty and students, both of which will encourage consultation and continued growth. Dr Cynthia Baker recognizes the challenges of visibility for nursing research and will work with the PRN group to further enhance the capacity building with faculty and students.

The PRN group has been successful this year in securing new funding for research activities including seven PI funded projects. The major initiative in 2004 was to establish a collaboration with the International Joanna Briggs Institute at Queen’s University. The Joanna Briggs Institute (JBI) was founded in 1996 to provide leadership and support in evidence-based practice through knowledge translation, knowledge transfer and knowledge utilisation. It has its foundations in nursing through the lead of Professor Alan Pearson, a notable figure in the Burford and Oxford Nursing Development Units in the UK during the 1980s. Professor Pearson at the invitation of the School of Nursing conducted a site visit for initial discussions with Queen’s about the process and requirements of establishing the first Canadian JBI Centre. Professor Pearson returned to open the Queen’s Joanna Briggs Collaboration (QJBC) in May 2004. Around the same time the Ontario Ministry of Health and Long Term Care announced 3 years of funding for QJBC as an Ontario demonstration project and implementation research initiative.

Knowledge translation (the systematic review of international evidence) has been undertaken in a variety of subject areas fundamental to professional practices, such as pressure ulcer prevention and management, falls prevention, best practices in day surgery, the use of restraints, and the management of constipation. In the knowledge transfer program of JBI, these comprehensive systematic reviews of the available evidence are transferred into health systems through the wide dissemination of Best Practice Information Sheets for health professionals and settings within the collaborative centre in our case, SEOHSC. Evidence based policy and procedure manuals are also provided to member health services to facilitate knowledge transfer at the system level. This activity will provide an important practical linkage for academia with the clinical settings and foster further collaborative opportunities for PRN within southeastern Ontario and beyond. Further developments in JBI have seen the incorporation of translation of non-quantitative evidence so that evidence of feasibility, appropriateness and meaningfulness of health care activities, interventions and outcomes can be systematically reviewed. The JBI knowledge utilization program assists member health
services to develop practical programs to embed systems designed to promote the utilization of evidence within health services and to engage in clinical benchmarking between like-institutions internationally. These services are provided by the JBI headquarters in Adelaide, Australia and are funded entirely through the payment of annual membership fees by over 1000 corporate and individual members in 25 countries. Corporate members are health services, universities, libraries and membership organizations. The number of JBI collaborating centres has increased rapidly across the world with an anticipated increase to 22 by 2004, these are in Australia, New Zealand, Thailand, Hong Kong, England (Nottingham) and Spain and further centres are being considered in the US, Scotland, South Africa, Japan and Scandinavia.

The mandate of JBI is similar to PRN in that a priority is to ensure research findings are translated into practice and evaluated. A proposal to fund the centre as a demonstration project was submitted to the Office of Nursing Policy at the Ontario Ministry of Health and Long Term Care and funding was secured. The clinical partners of the Southeastern Ontario Health Sciences Centre were approached to formalize the partnership with QJBC. At the end of December 2004 Hotel Dieu Hospital and the School of Nursing had signed agreements and will now have full access to all JBI materials. Kingston General Hospital are expected to join in January 2005; negotiations continue with Providence Continuing Care and the Kingston, Frontenac, and Lennox & Addington Health Unit. A four-day JBI workshop was conducted by Drs Pearson and Wichelea. Sixteen individuals participated in the workshop, including PRN scientists, faculty and nurses from various local clinical settings. From the workshop, a protocol for the QJBC’s first systematic review was developed and received JBI approval in November 2004. The review is being conducted by Drs Lamb, Buchanan and Harrison.

PRN Career Support
The PRN group has remained small, with a cadre of three nurse scientists. Each of the researchers holds a career award that ensures 75% time is for research. Dr Tranmer and Dr Medves are in the third year of five of their Ontario Ministry of Health and Long Term Career Awards. Dr Harrison is in the second year of a five year Canadian Institute of Health Research New Investigator Award. The challenge in 2007-8 will be to find additional protected research career support that will allow the investigators to continue to explore and build these exciting initiatives. While funding is available to establish chairs, the most recent being an Ontario Women’s Health Council Chair, all require matching funds, the lack of which limits the availability of such opportunities to Nursing faculty. At this time there are no mid-career research awards available nationally for nursing; nonetheless, the PRN group will submit a proposal to have at least one CIHR chair allocated to nursing in the next round of submissions. The PRN group will continue to monitor all announcements to establish chairs in nursing in Canada and apply as appropriate.
Capacity Building
A continuing mandate of the PRN group is to build capacity. This has been achieved by offering PRN the designation of ‘research associate’ to health academics who are engaged in funded research with the group. The following individuals have accepted the designation: Dr Marianne Lamb, Dr Diane Buchanan, Dr Elizabeth VanDenKerkhof, Dr Judy DeWolfe, Susan Laschinger, Cheryl Pulling, Judy Plourde, and Catherine Perkin. The formalization of the research associate role allows recognition for the contribution of faculty members to nursing research and will help build the research portfolio of the School of Nursing. The designation of ‘clinical associate’ will be offered to nurses working in clinical settings who are actively engaged in PRN research. In 2004, post-doctoral supervision was undertaken by Dr Harrison, supervising Dr Rosemary Martino (Knowledge Translation in Stroke Rehabilitation), and Dr Tranmer, supervising Dr Dianne Groll. The PRN group members are also seeking opportunities to supervise PhD students in anticipation of future approval of a PhD programme in nursing at Queen’s University.

External Linkages
Another important mandate for PRN is to facilitate the integration of practice and research initiatives across the practice and academic settings. Dr. Margaret Harrison represents PRN on the Nursing Research Council (NRC) of SEOHSC, and Dr. Joan Tranmer provides organizational support and leadership for the NRC. Through activities such as the annual Nursing Research Day (June, 2004), consultations, and invited presentations, the PRN group is become increasingly recognized as an important research resource and a necessary collaborative entity.

The PRN group was formed to enhance opportunities for nurses to engage in nursing research and to build nursing capacity. However, group members also recognized the responsibility to engage in interdisciplinary research. Each of the scientists is cross-appointed to the department of Community Health and Epidemiology. Each of the directors has either supervised or examined Community Health and Epidemiology students in the past year. More informal links have been created with other departments (rehabilitation therapy, obstetrics and gynaecology, paediatrics) in the Faculty of Health Sciences that allow PRN students to have access to academics in other departments, and to ensure that the issues related to nursing research are known by other researchers. These formal linkages provide a forum to engage in interdisciplinary activities including teaching, research and graduate supervision. Liaison with the Monieson Centre in the School of Business by each of the directors on a number of initiatives has also provided a forum for discussion of knowledge translation in health.

In the following pages of the annual report there is a description of research funds held by the Directors of PRN, selected publications and presentations. Those names in italics are research associates of the PRN group.
Future plans
While we recognize our substantial accomplishments and the dedication required to sustain these initiatives we continue to look to the future. Our goals for the upcoming year include:

1) Determining the future needs for space and personnel, including relocating with the School of Nursing when space becomes available
2) Exploring every avenue to secure career support for nurse scientists in the Kingston community.
3) Developing expertise in research implementation to guide research evidence into practice
4) Applying funds to maintain the PRN group infrastructure for the long term.

Respectfully submitted

Jennifer Medves, RN, PhD
Director, Practice and Research in Nursing Group
New funding in 2004 – Principal Investigator PRN group

<table>
<thead>
<tr>
<th>Title</th>
<th>Evidence for Practice: Nursing Implementation Study (Queen’s University)</th>
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<tr>
<td>Investigators</td>
<td>Harrison, Medves, Tranmer, Lamb</td>
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<tr>
<td>Funding source</td>
<td>Ontario Ministry of Health and Long Term Care ($351,240)</td>
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<td>Years of funding</td>
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**Abstract**

The Practice and Research in Nursing Group will take practice-based issues and respond with the most up to date evidence in practical forms for practitioners and policy developers. The group will actively include clinicians and researchers from varied fields of nursing, including acute care, chronic and long-term care, and community and home care. The focus will be on the provision of nursing practice, based on the best available evidence with the field of home care. The populations of focus will be cross sectors of care with particular emphasis on topics related to chronic conditions, maternal child health and patient safety.

The grant is to support 1) initial infrastructure including personnel and equipment, 2) a demonstration project that will include participation in the international commitments required by membership in the JBI partnership, and 3) an evaluation of the effect of a Joanna Briggs Centre on nursing care delivered through the use of best practice. The priority directions will be a) to build research capacity in knowledge translation, b) conduct implementation research related to best practices and practice change, c) conduct research based on ‘gaps’ that focus on Canadian Health Care, d) participate fully in JBI collaborative activities, and e) promote evidence based nursing practice within the practice partners of the SEOHSC and the remote site of Moose Factory.

The project will utilize an action research methodology throughout the project so that practicing nurses can fully participate in identifying the priority areas, engage in systematic reviews of the evidence, and designing best practice protocols for use in practice.

Each year at least one systematic review will be completed and submitted to the JBI in Australia for world wide dissemination.
Title | Adaptation of best practice guidelines for the management of diabetes in a northern aboriginal community
---|---
Investigators | Medves, Harrison, Pulling, Laschinger, Lamb, Mill, Plourde, McLeod, Oakley
Funding source | Queen’s University (ARC) ($9,995)
Years of funding | 2004-2005

Abstract

The joint initiative between Weeneebayko Hospital, Moose Factory, a northern Ontario community and Queen’s University School of Nursing is focused on using evidence for practices in diabetes management. Transferring evidence into practice is a cornerstone of best practice in health care. It is also an enormous challenge, requiring both clinical and health services adjustments to support the best practice delivery. Clinical practice guidelines (CPGs) are a primary source of “best available evidence” providing clinical recommendations with ranked evidence. In practice, CPGs have been shown to improve both the quality of care and patient outcomes. This implementation research will engage the northern community in the adoption and use of already developed CPGs for diabetic care. The research goal is to study the impact of this implementation and further understanding of how northern communities can adapt national or international guidelines. The community has decided that CPGs related to diabetes health care across the continuum and in particular with young aboriginal families, is their priority.

The primary research objective is: To develop/adapt and implement culturally appropriate best practice guidelines for diabetes care in an aboriginal community in northern Ontario. The secondary objectives are to study the process of establishing culturally appropriate best practice guidelines and the implementation of best practice guidelines identified and adapted by aboriginal nurses and their community. The information gained from this study may be helpful in implementation of research guidelines in other aboriginal communities that require adaptation to be relevant and acceptable for northern contexts and settings. The research will involve an iterative process with each stage having community involvement. The project is broadly defined under ten steps. The research objectives are 1) identify aboriginal community perceived gaps in service and care, 2), identify and assess the quality of potentially relevant guidelines, 3) identify barriers and enablers to ‘best practice’ and selection of appropriate implementation strategies, and 4) evaluate the implementation of ‘best practices’ pilot. Concurrently, the aboriginal community guided by their advisory group will i) identify broad areas of focus, ii) identify specific clinical foci within diabetes, and iii) adapt guideline recommendations to context of aboriginal peoples health, and iv) implement the ‘best practice’ guidelines. The methodologies include well-established evidence and recommendations appraisal techniques (levels of evidence, AGREE), institutional ethnography for barriers assessment, and program evaluation of process and outcomes of the implementation.
**Abstract**

**Rationale and purpose:** Heart failure (HF) is a prevalent chronic cardiovascular condition of particular concern to the elderly and their caregivers. Despite substantial medical advances in the understanding and management of HF, the course of the illness remains unpredictable. Acute exacerbations of HF are associated with poor management of heart failure symptoms, frequent visits to hospitals, and create substantial burden for the patient, family and health care system. Because of the chronicity of the condition, much of the responsibility and burden of management and care rests with the HF patient and/or their caregiver. The older female population with HF represents a unique and highly vulnerable group as the underlying pathophysiology may be different, diagnosis may be delayed, and access to, and utilization of, informal and formal support systems may be less. For the older female (and male), there is limited information about the processes of care associated with optimal outcome. Therefore, the primary aim of this study is to gain a better understanding of the personal, social and system supportive resources that contribute to functional decline in older persons living with symptomatic HF, and the gender differences in this profile and the relative impact of these resources on functional decline. We hypothesize that women with HF, in comparison to their male counterparts, will have lower levels of functional well being and fewer available supportive resources, when age and disease severity are controlled for.

**Research objectives:** Prospective study objectives will involve a one year follow up of a representative sample of persons 65 years of age or older with HF in order to: (1) assess and quantify the potential relationships between (i) the primary outcome measure of functional well being, as assessed with health related quality of life measures, as well as with secondary outcome measures of (ii) use of emergent services and (iii) mortality with (a) personal and social characteristics and (b) use of supportive resources, including personal (self-care), informal and formal supports while simultaneously controlling for the potential confounding effects of age, disease severity and presence of comorbid conditions; and (2) to derive multiple variable models and explore causal pathways based on the relationships described above, with the intention of informing a risk profile of low functional well being and/or high use of emergent services for older men and women living with HF. The qualitative study objective is to describe the patients' and families’ experiences with exacerbation of illness.
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<tr>
<th>Title</th>
<th>Health and well being in older persons living with cancer</th>
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<tr>
<td>Investigators</td>
<td>Tranmer, Green, Robb-Blenderman, Groome, Groll, Ginsburg, McCans</td>
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<tr>
<td>Funding source</td>
<td>Oncology Nursing Society Foundation ($US44,500)</td>
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<td>Years of funding</td>
<td>2004-2006</td>
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**Abstract**

**Rationale and purpose:** The number of elderly patients receiving treatment for cancer has increased and is expected to increase as the population ages. Despite the substantial advances in medical care and treatment protocols there is a poor understanding of the supports required to maximize the effect of treatment and the impact of treatment on overall health of the patient and family. This is particularly important for the older patient as treatment effectiveness may be influenced by preexisting comorbid conditions, social isolation, limited economic resources and diminishing physical and mental capacity. The purpose of this descriptive study is to profile the cardiovascular health, quality of life, informal and formal supports, and physical and emotional well being in older persons with cancer.

**Research objectives:** The specific research objectives are:

1. To systematically measure, over the course of a year cardiovascular health, using validated measures, the symptom burden, social support and health related quality of life (HRQL) in older persons with cancer.
2. To describe these measures across disease site and treatment modality.
3. To determine the prevalence of cardiovascular illness and cardiovascular risk factors across disease site.
4. Where possible (i.e., n > 64 for disease site), across disease sites determine if there are relationships between cardiovascular health, levels of symptom distress, functional comorbidity, social support and HRQL.
5. To describe the informal and formal supports that are accessed by elderly patients with cancer.
6. To compare the characteristics of elderly cancer patients who receive treatment at Kingston Regional Cancer Centre (KRCC) with the characteristics of the elderly cancer population registered in the Ontario Cancer Registry.

**Relevance:** This research is relevant to the increasing number of elderly patients with cancer, their caregivers, and to health care providers. As novel treatments are developed and implemented, we need to ensure that the health care delivery system is optimally designed to support the delivery of this complex care. The information gained from this study will contribute to the future planning of regionally based, age sensitive health services for older persons living with cancer.
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<tr>
<th>Title</th>
<th>KAB Project: Evaluation of the Multidisciplinary Collaborative Primary Maternity Care Project</th>
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<tr>
<td>Investigators</td>
<td>Davies, <strong>Medves</strong>, Graham, Peterson</td>
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<tr>
<td>Funding source</td>
<td>Health Canada ($100,000)</td>
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<tr>
<td>Years of funding</td>
<td>2004-2006</td>
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**Abstract**

An evaluation of the impact of the Multidisciplinary Collaborative Primary Maternity Care Project (MCPMCP) on the attitudes, knowledge and beliefs of practitioners, professional association representatives and government policy decision makers. Practitioners will include family physicians, midwives, nurses, nurse-practitioners and obstetricians in urban, rural and remote settings. We are also proposing to describe the lessons learned over the course of this project and generate suggestions for future initiatives. The overall project is a national initiative with five partner associations:

- The Association of Women’s Health, Obstetric and Neonatal Nurses (Canada)
- Canadian Association of Midwives
- College of Family Physicians of Canada
- Society of Obstetricians and Gynaecologists of Canada
- Society of Rural Physicians of Canada

A pre and post design will be used. Mixed methods of data collection will be used with quantitative surveys, qualitative interviews and focus group discussion sessions. Quantitative surveys will be conducted pre and post project with practitioners. Qualitative interviews will be conducted with professional association representatives and government policy makers pre and post project. One focus group will be held with participants attending one national annual meeting of each of the five collaborating professional associations.

The participants of the study will include:

1. Practitioners: A target of 500 with 100 randomly selected from each of the five participating partner associations.
2. Professional Association Representatives: A target of 15 with 3 from each of the partner groups
3. Government policy decision makers: A target of 15 with 2 to 3 from each of four to six participating provincial government groups (e.g. Ontario, British Columbia, Manitoba, Nova Scotia)
4. Practitioners attending an annual professional association meeting with 6 to 8 participants in each group.
### Title
Enhancing continuity in Pediatrics

### Investigators
Graham, Harrison

### Funding source
Canadian Health Services Research Foundation, Ontario Ministry of Health and Long Term Care, and Children’s Hospital of Eastern Ontario ($270,000)

### Years of funding
2004-2005

### Abstract
Improving continuity of care within and across health care sectors is receiving increasing attention. Patients and families experience numerous transitions across the continuum of health care related to shorter inpatient hospital stays, increased community-based care, and increased specialization of health care. To date, little attention has been given to identifying the barriers and facilitators to management continuity, specifically in pediatric populations. This issue has been identified as a serious concern by patients, families, providers, and decision makers.

This project, examining four patient population groups from three pediatric acute care hospitals across Canada, will not only identify and describe the major factors related to continuity and fragmentation of care in pediatric health services from the perspective of families and providers but also make suggestions for improving continuity. The project will deliver a report on barriers and facilitators to continuity of pediatric care, a list of suggestions for managers about how continuity might be improved, and an instrument to measure management continuity. The project, with a time frame of 15 months, will use a qualitative design to achieve the study objectives. The project is supported by a solid team of principal investigators and decision maker partners with strong linkages with each of the study sites. Decision makers and clinical consultants from each site are members of the investigative team. The research team will be supported by a project Steering Committee that will include parent representatives, clinical managers, and a representative from the Canadian Association of Pediatric Health Centres (CAPHC).

This project is of considerable interest to policy makers and managers in pediatric settings across the country for it will advance knowledge of what families and providers consider essential elements of continuity. The measurement tool that will be developed can provide a benchmark for facilities to evaluate their provision of the components of continuity of care and to propose solutions to improve health care delivery. This project is strongly supported by CAPHC, who will partner to share and disseminate research findings, as well as to facilitate the translation of these findings into practice and policy.
<table>
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<tr>
<th><strong>Title</strong></th>
<th>Primary care management/action plan for advanced chronic diseases (The Road/MAP project)</th>
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<tr>
<td><strong>Funding source</strong></td>
<td>Ontario Primary Care Health Transition Fund ($460,300)</td>
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<td><strong>Years of funding</strong></td>
<td>2004-2006</td>
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**Abstract**

Patients living with advanced chronic diseases (ACD), such as congestive heart failure (CHF) and chronic obstructive lung disease (COPD), present substantial care and economic challenges for the health care system. Morbidity and mortality is high in these complex populations, and patient quality of life is compromised. Care of patients with ACD occurs across health care sectors by providers in the acute, primary, and community settings. Despite recent efforts to enhance the care of patients with ACD through multidisciplinary disease management programs, variations and gaps exist along the continuum of care. Primary health care providers raise particular concern about poor patient comprehension of treatment plans, poor access to services to support patient self management of care, poor self knowledge of medical clinical practice guidelines, inability to readily access other health care providers (i.e., specialists, consultants) and poor coordination of essential clinical information and care. These system weaknesses ultimately compromise the patient’s ability to manage his or her own illness and result in acute care admissions, usually through the emergency department, of patients who might otherwise be able to remain in the community setting.

We are proposing to demonstrate that a comprehensive, primary care based, multidisciplinary strategy will provide intersectoral links between settings, optimize the available health care resources, utilize the best available evidence, and lead to optimization of quality life for patients with ACD. As this program will involve linkages between health care sectors and strategies to facilitate care management, we have labeled the project: the RoadMAP Project.

**The goals of this project are to optimize the:**

1. management of patients with ACD (CHF/COPD) in the primary care setting
2. quality of life of patients with ACD (CHF/COPD)
3. access to, and utilization of, community-based services for patients with ACD
4. access to, and appropriate use of, tertiary and acute care services for patients with ACD
Continuing Principal Investigator Funding

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<tr>
<th>Title</th>
<th>Community Randomised Control Trial of the Effectiveness of two compression bandaging technologies</th>
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<tr>
<td>Investigators</td>
<td>Harrison, Graham, Cullum, Nelson, Lorimer, Harris, VanDenKerkhof</td>
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<tr>
<td>Funding source</td>
<td>Canadian Institutes of Health Research ($622,318)</td>
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Abstract

Although rarely recognized as a pressing health care problem, leg ulcers comprise a common, complex, and costly condition. Over 80% of the ongoing management of chronic wounds occurs in the community, and leg ulcers are one of the most frequently seen chronic wounds. The cost of leg ulcer care is considerable, being reported in both the UK and France to account for 2% of their total national health budgets. In Canada, the impact is only now being recognized due to the pressure on home care caseloads resulting from hospital downsizing, nursing shortages, and growing numbers of complex health populations. In one Ontario study, the care for fewer than 200 community leg ulcer cases cost in excess of $1.5 million for supplies and nursing visits, which translates to $100s of millions yearly Canada-wide. The impact on the individual is significant--chronic, painful, and often takes years to heal. Two-thirds of individuals with leg ulcers have at least one recurrence, and 45% have a history with the condition dating back 10 years.

State of Knowledge & Clinical Practice Guidelines: Over the past decade, evidence from RCT studies and a recent Cochrane systematic review in BMJ demonstrated that venous leg ulcers treated with compression therapy are more likely to heal. Multi-layer high compression systems are more effective than low compression. However, the small number of people in trials comparing different high compression systems meant the review was unable to draw conclusions about their relative merit. Four of these trials have compared 4-layer bandage with the short stretch technologies--the most commonly used technologies in Canada. In total, these trials involved only 220 patients, and were thus underpowered. Furthermore, they did not consider factors such as client preference and ease of use, or incorporate an economic evaluation.

Research objective: To compare the effectiveness of 2 compression technologies delivered in the community on ulcer healing, recurrence rates, quality of life, and expenditures

Interventions: Four-layer bandage vs. Short stretch bandage.
### Title
Implementation of best practice: A prospective study of the uptake of evidence-based guidelines for community care of chronic wounds in four health regions in Ontario

### Investigators
Harrison, Graham, Johnson, Mather, Plain, Campbell, Houghton, Keast, Woodbury, Harris, Hicknell, Hughes, Van de Velde-Coke

### Funding source
Social Sciences and Humanities Council (($221,454)

### Years of funding
2001-2004

### Abstract
This project is about conducting applied interdisciplinary research on how research findings are transferred into practice at both the level of policy makers and practitioners. The project consists of two complementary studies. The primary objective of the project systematically describes the process of research use as it naturally takes place over time in four Ontario communities (referred to as the study of guideline implementation). By ‘research use’ we mean the transfer and uptake of evidence about effective health care interventions into clinical practice by multiple provider groups. In our project, the research is an evidence-based clinical practice guideline for (EBCPG) for leg ulcer care (Graham, et al, 2000). A secondary objective describes the experience and meaning of having a leg ulcer (including the issues related to professional care, lay care given by family and friends, and self-care) of purposive samples of individuals whose leg ulcer care are affected by the implementation of the EBCPG (referred to as study of individuals’ experiences with a leg ulcer). Both our objectives are designed to meet the SSHRC’s program objectives of “expanding applied interdisciplinary knowledge to assist those who can benefit” and “conducting research on how transfer and uptake of knowledge occurs.”

The significance of the study is its potential to improve understanding of how transfer of knowledge from an EBCPG to the interdisciplinary practice arena occurs. To date, little is known about the implementation and uptake of EBCPGs in the community setting. There are virtually no studies that have systematically and prospectively examined the process as it evolves and concurrently collected data on organization/system, provider and health outcomes to assess the impact of uptake of the EBCPG. We believe the time has come to develop an understanding of the process involved in deciding to use best practice guidelines at the policy and provider level and to describe barriers and facilitators to the uptake of knowledge and best practice as they are encountered in real time. Once the process is better understood, research transfer strategies can then be more efficiently selected and tailored to the barriers and facilitators in the community.
The effectiveness of inpatient and outpatient respiratory rehabilitation programs in increasing functional capacity and reducing symptoms in COPD patients has been clearly established. However, the potential impact of these programs has not been fully realized in Canada. Despite their effectiveness, such programs are not universally available, currently reaching only a small number of those who might benefit from them. Further, where the positive effects of these programs have been monitored over the long term, rapid drift toward baseline outcome levels after program completion has often been observed.

A number of strategies to combat diminishing effects of these programs have been proposed and tested, usually by substituting home-based for hospital-based rehabilitation programs. However, these strategies fail to take advantage of the clear success of the more intensive hospital-based programs and do not demonstrate the same degree of impact on functional capacity outcomes, although some clearly show durability of program effects.

We propose to evaluate an integrated program comprising a hospital-based respiratory rehabilitation program followed by home maintenance that focuses on reinforcement of newly acquired skills and knowledge, monitoring, and use of home rehabilitation to regain outcome levels following acute illness. This program will be evaluated by an expert panel and revised, if necessary, based on current evidence. The intervention will then be tested using a randomized usual care controlled trial with all patients (N=70) completing the respiratory rehabilitation program in the region over a one year period, providing consent for participation is given. These patients will be followed at home and in clinic to determine differences in physiological, functional, symptom experience, HRQOL, health system utilization and cost at 2, 4, 6 and 12 months post rehabilitation. The methods will be assessed for use in a broader trial of cost-effectiveness, should this approach to rehabilitation and maintenance indicate effectiveness in this preliminary trial.
Principal Investigators, Drs. Margaret B. Harrison and Ian D. Graham, will conduct an overview of leg ulcer treatments in the 18th 19th and 20th centuries in Britain and how these treatments have been influenced by societal attitudes and medical myths. North American sources become available later in the 19th century. A systematic search will be conducted of original sources, in particular the British Medical Journal, the Lancet, and other early publications available through the Wellcome Institute in London, UK, and other library resources.
Title  A comparison of patient health status, quality of life and caregiver burden in patients >75 years treated for coronary artery disease with coronary artery bypass surgery, percutaneous interventions or medication

Investigators  Tranmer, Hamilton, Adams, Arthur, O’Callaghan, Groll, Bart, Parry, Day

Funding source  Canadian Institutes of Health Research ($217,306)

Years of funding  2002-2005

Abstract

Rationale and Purpose:  Seniors are one of the fastest growing population sectors in Canada with older seniors representing a major proportion of this growth. Coronary artery disease (CAD) is a leading cause of morbidity and mortality in Canadians, with incidence increasing as a function of age. Increasingly, elderly patients are being treated for cardiac disease with coronary artery bypass surgery (CABG), percutaneous interventions (PCI) or medication. While there is evidence to suggest that these treatments can be performed in elderly patients with higher but acceptable morbidity and mortality there is a paucity of evidence about the longer term health related outcomes. Furthermore, there is little if any evidence about informal caregiver’s burden of care associated with the various treatment modalities. Given that patients and their caregivers, and physicians providing the care, desire to make the best decisions about their health care, and wish to optimize the success of treatment, there is an information gap for all. To our knowledge no research to date has examined, prospectively, quality of life issues and care burden in this population.

Research Objectives:  The research objectives for this study are:
1. To describe and systematically measure with validated instruments quality of life outcomes, including health related quality of life, disease specific quality of life, age related quality of life and level of symptom distress in patients ≥ 75 years of age treated for CAD with CABG surgery, PCI or medication only from pretreatment to one year posttreatment at intervals of 1, 3, 6 and 12 months.
2. To describe and systematically measure with validated instruments health related quality of life and burden of care in caregivers of these patients from pretreatment to posttreatment at intervals of 1, 3, 6 and 12 months.
3. To explore for significant associations between patient and caregiver structural variables and process variables (i.e., treatment and caregiver support) on patient quality of life outcomes.
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<thead>
<tr>
<th>Title</th>
<th>Investigators</th>
<th>Funding source</th>
<th>Years of funding</th>
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<td>Title</td>
<td>Effect of brain temperature on neuropsychological and quality of life outcomes</td>
<td>Nathan, <strong>Harrison</strong>, Hendry, Munson, Wells</td>
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<td>Improving the quality of life in Canada: A longitudinal study of seriously</td>
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<td>Building capacity: Development of a transdisciplinary team for improving the</td>
<td>Grimshaw, Graham, <strong>Harrison</strong>,</td>
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<td>quality of health care</td>
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<td>Angus, Legare, Godin, Logan, Lemyre, Pomey, Eccles, Brouwers, Zwarenstein,</td>
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<td>Optimal management of women with distal forearm fractures</td>
<td>Cranney, Graham, Harrison, Grimshaw, Brison, Godwin, Lam</td>
<td>Canadian Institutes of Health Research ($240,000)</td>
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<td>Preceptorship: An investigation of issues from the perspective of three stakeholder groups</td>
<td>DeWolfe, Perkin, Medves, Harrison</td>
<td>School of Nursing, Queen’s University ($2,500)</td>
<td>2004-2005</td>
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<td>Training program for the development of cardiovascular nursing research capacity in Canada</td>
<td>Arthur, King, Purden, Tranmer, Robichaud-Ekstrand, Tapp, McFetridge, Watt-Watson, Rukholm</td>
<td>Canadian Institute of Health Research ($1,446,500)</td>
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<td>Meeting the needs of cancer patients and families today and tomorrow: oncology nurse demographics and clinical role functions</td>
<td>Crooks, Green, Ferguson-Pare, Bakker, Tranmer, Fitch, Sharkey</td>
<td>Ontario Ministry of Health and Long Term Care ($128,000)</td>
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<td>Canada PRIME: Process modelling in implementation research: Selecting a theoretical basis for interventions to change clinical practice</td>
<td>Grimshaw, Graham, Godin, Driedger, Hanna, Hux, Zwarenstein, Lemyre, Eccles, Johnston, Brouwers, Harrison, Lgar, Logan, Pomey</td>
<td>Canadian Institutes of Health Research ($97,000)</td>
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<td>Babies Can’t Wait</td>
<td>Kasperski, Rogers, Freeman, Stewart, Brown, Biringer, Price, McNiven, Rosser, Busing, Lofsky, Smith, Young, Johnston, Sobbe, Dunn, Medves, Van Wagner</td>
<td>Ontario Primary Health Care Transition Fund ($1,029,375)</td>
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<td>Dimensions of Chronicity in Children: Measuring the non-categorical</td>
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<th>The Nature of Nursing Practice in Rural and Remote Canada</th>
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<td>McLeod, Kulig, Stewart, Pitblado, d’Arcy, Thomlinson, Remus, Forbes, Smith, Morton, Medves, Lazure, Martin-Misener, Curran, Vogt, Zimmer</td>
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**Publications in Peer Reviewed Journals 2004**

**Manuscripts Accepted or Submitted**


Cheng PL, Dumas GA, Smith JT, Leger AB, Plamondon A, McGrath MJ, **Tranmer J.E.** Analysis of self-reported problematic task for pregnant women. Accepted pending revisions to *Ergonomics*.


Systematic Reviews


Manuscripts/Reports in Press


Peer Reviewed Publications


On-Line

Selected Presentations in 2004


Invited Presentations


Harrison, M.B. (2004). Quality of Life as Primary Trial Outcome for Patients with Heart Failure: Lessons Learned. Visiting Scholar. Public Lecture, April 12-14, University of Manitoba, Winnipeg, Manitoba.


Graduate Student Supervision

The following students completed a Master of Science Degree and were supervised or co-supervised by one of the PRN Nurse Scientists in 2004

Susan Jewell (Medves) Composition of Preterm human milk insufficient human milk supply: Is it real or perceived issue for the preterm/low birth weight infant?

Bernardine Cowperthwaite (Medves [cosupervision]) Effects of maternal smoking on health perception and fetal behaviour

Michelle Foulkes (Medves) ‘Having Postpartum’: Enablers and barriers to seeking help for a postpartum mood disorder.

Laura Kerr (Harrison) Supportive care needs of parents of children with cancer: Transition from diagnosis to treatment.

The following students are enrolled in a Master of Science Degree and are supervised or co-supervised by one of the PRN Nurse Scientists in 2004

Christina Godfrey (Harrison and Tranmer)

Lisa Smith (Harrison)

Mary Eicholz (Harrison)

Kerrie Girouard (Harrison)

Fairleigh Seaton (Medves)

Stephanie Prince (Tranmer)