NURSE MIGRATION INTENTIONS IN A CANADIAN BORDER CITY

MIGRATION INTENTIONS OF NURSE GRADUATES IN A CANADIAN BORDER CITY

By MICHELLE FREEMAN, RN., BA., BScN., MScN

A Thesis

Submitted to the School of Graduate Studies

In Partial Fulfillment of the Requirements

For the Degree

Doctor of Philosophy

McMaster University

DOCTOR OF PHILOSOPHY (2012) McMaster University

Nursing Hamilton, Ontario

TITLE: Migration Intentions of Nurse Graduates in a Canadian Border City

AUTHOR: Michelle Freeman, B.Sc.N. (University of Windsor) B.A. (University of Windsor) M.Sc.N. (Wayne State University)

SUPERVISOR: Andrea Baumann, R.N., Ph.D.

NUMBER OF PAGES: xii, 184

Abstract

Migration Intentions of Nurse Graduates in a Canadian Border City

Background. The nursing profession has a long tradition of migration. However nurse mobility is becoming increasingly relevant to a world faced with a critical nursing shortage. The migration of nurses from Canada has received little attention. This sandwich thesis describes a program of research intended to increase knowledge of one aspect of nurse migration.

Objective. The purpose of this research program was to understand the migration intentions of nurse graduates in a Canadian border city, their intention to become commuter migrants, and to explore the factors influencing these intentions.

Methods. To accomplish this goal, two qualitative studies of the migration literature were completed. They included an analysis of the use of the concept of migration and an integrative review of the use of case study methodology in the study of nurse migration. Then a mixed methods study, guided by the Value-Expectancy framework, was undertaken to explore the migration intentions of nurse graduates in a Canadian border city and the factors influencing these intentions. In the first quantitative phase of this study, data was collected by a web-based self-report survey. In the subsequent qualitative phase, semi-structured interviews were conducted.

Results. The concept of nurse migration was found to be multifaceted. Its attributes, antecedents and consequences were defined. The mixed methods study

provided insights into the migration intentions of recently graduated Canadian nurses. The majority preferred to work in Canada, but because of a perceived absence of valued jobs factors, were willing to migrate. Two thirds considered migrating and sixteen percent were interested in becoming commuter migrants. The findings supported the hypothesis that nurses weigh employment values (goals) against the expectation of achieving them, thus influencing intentions to migrate or stay. Other factors such as knowing a nurse who worked in the US (Michigan) influenced the intention to migrate. Living in a border community was found to be a strong predictor of migration.

Conclusion. The value-expectancy framework offered a novel approach for understanding and identifying the job factors that were driving migration intentions. There is a need for more primary research employing different methodologies to explore the characteristics, causes, and consequences of nurse migration that were identified through this research.

ACKNOWLEDGEMENTS

I wish to acknowledge a number of people who have supported me in the completion of this dissertation.

Sincere appreciation is extended to my Doctoral Committee, Dr Andrea Baumann, Dr Jennifer Blythe, Dr Anita Fisher and Dr Noori Akhtar-Danesh, a team of exceptional individuals who guided me along each step in my PhD journey. A special thank you for your support and encouragement in publishing these studies so they could contribute to future research on nurse migration. I was very fortunate to have been supervised and mentored by Dr. Baumann, an expert in nursing health services, who shared my interest in studying nurses in a border community.

I am indebted to the nursing students from the graduating class of 2011 from the University of Windsor. This study took place at a very busy time for them as they prepared for licensing exams and launching their careers. Thank you for volunteering your time to participate in my survey and interviews.

A special thank you to my husband Stephen who supported and encouraged me when I needed it most and to my wonderful children Wesley, Rachel, and Bridget who never doubted that I could accomplish this.

I am very grateful for the funding from the Ministry of Health and Long-Term Care through the Nursing Health Services Research Unit, McMaster site who supported this work.

Preface

The content of this thesis represents original work that I conducted for the purpose of obtaining a Doctor in Philosophy of Science in Nursing degree. As the author of this thesis, I am the main contributor to these works which were conducted between 2008 and 2011. As principal investigator for these studies, I was responsible for conceiving the research questions, study design, and for collecting and analyzing the data. This dissertation would not have been possible however without the guidance of my supervisor Dr. Andrea Baumann, and committee members Dr. Jennifer Blythe, Dr. Anita Fisher, and Dr. Noori Akhtar-Danesh.

The three articles in this thesis have been prepared for submission to scholarly nursing journals. Chapter Two has been published, Chapter Three has been accepted for publication, and Chapter Four has been prepared and submitted for future publication. My supervisory committee are identified as co-authors in the publications because of their contributions to the studies' concept and design, provision of methodological and statistical expertise, reviewing of the manuscripts for important intellectual content, and final approval for publication. They have granted permission to include these articles as part of my thesis.

The study in Chapter Four was supported by funding from the Ministry of Health and Long-Term Care through the Nursing Health Services Research Unit, McMaster site.

TABLE OF CONTENTS

List of Appendices

List of Tables

Chapter Two

Chapter Three

Chapter Four

List of Figures

Chapter Two

Chapter Four

CHAPTER ONE

Migration Intentions of Nurse Graduates in a Canadian Border City

Introduction

This doctoral dissertation is a sandwich thesis that summarizes a program of research on nurse migration. It is organized in five chapters. This chapter provides background information, describes the problem to be addressed, the purpose of the study, and summarizes the dissertation. Three articles, prepared for submission to scholarly nursing journals, follow. Chapter Two has been published, Chapter Three has been accepted for publication, and Chapter Four has been prepared and submitted for future publication. Chapter Five includes the contributions, implications, limitations, and conclusion.

Background and Statement of the Problem

Migration has had a long tradition in the nursing profession but current rates are unprecedented (Troy, Wyness, & McAuliffe, 2007). Nurse migrants are of great interest nationally and internationally (Brush, 2008). Globally, there is a shortage of Registered Nurses (RNs) and almost every country in the world predicts needing more nurses than they will produce or retain (Aiken, Buchan, Sochalski, Nichols, & Powell, 2004; Buchan & Calman, 2004; Kline, 2003). As a result of failed policies and underinvestment in nursing, developed countries have a growing dependence on nurse migrants (Aiken et al., 2004; Brush, 2008). This

shortage is occurring at a time when the role of nurses has been acknowledged as critical to maintaining the health of countries (Buchan, 2006).

RNs are the largest profession in the health-care work force in Canada and an adequate supply is crucial to the health and well being of the Canadian population (Canadian Nurses Association, 2007). In 2007, there was a shortage of nearly 11,000 full-time equivalent (FTE) RNs in Canada, a number projected to increase to almost 60,000 FTEs by 2022 (Tomblin Murphy et al., 2009). Many recommendations have been made to address the shortage such as increasing RN productivity (Tomblin Murphy et al., 2009) and improving workplaces (Baumann et al., 2001). Although migration has been identified as a significant brain drain contributing to the nursing shortage, little attention has been focused on preventing the exodus of nurses from Canada (McGillis Hall et al., 2009; Pink, McGillis Hall, & Leatt, 2004).

Nursing graduates who attend university nursing programs in communities along the United States (US) Canada border are in a unique location and more predisposed to becoming commuter migrants. The US is the largest importer of nurses because of its size and Canada has long been an important source country, especially in border states (Aiken et al., 2004). Commuter nurse migrants are a reality in many Canadian border cities although the actual numbers are unknown. These nurses have received only recent attention in the literature (Cameron, Armstrong-Stassen, Rajacich, & Freeman, 2010). Other Canadian studies (Registered Nurses Association of Ontario, 2001) have focused on nurses living

outside Canada and have excluded commuters. Commuter nurse migrants exist in a number of countries (e.g., European Union) but they have rarely been studied.

Little is known about the migration intentions of graduating nursing students in general, and border city graduates in particular. After being licensed in the US, they are able to assume the role of nurse migrants without leaving Canada. They can cross the international border as daily commuter migrants and return to their home country after work. These nurses, although still contributing to the Canadian economy, represent the loss of valuable health human resources for Canada. Investigation of the literature found only one study on the intent of nursing students to migrate from Uganda (Nguyen et al., 2008); no studies were found on the intent of newly-graduating Canadian nurses to migrate. Although there has been a recent investment by Canada to increase the number of nursing students to address the shortage (Baumann, Yan, Degelder, & Malikov, 2006), there is a gap in our understanding of the migration intentions of these graduate nurses and the factors influencing their decision making. This increase in nurses will have little impact on shortages in Canada if large numbers migrate for work in other countries, such as the US. The purpose of this research is to explore the migration intentions of nurse graduates in a Canadian border city, their intention to become commuter migrants, and to explore the factors influencing these intentions.

Little agreement is found in the literature on how "migrant worker" should be defined (Baumann, Blythe, Kolotylo, & Underwood, 2004). Definitions were

vague, controversial, or contradictory and varied by country (International Organization for Migration, 2004, p. 3). To study migration intentions, it was necessary to understand how the concept of migration is used in nursing and, in particular, how the term "commuter migrant" was used. In this study, commuter migrant refers to RNs who live in Canada but cross the international border each day to work in the US.

Although migration theories have been evolving for many years, there are few examples of their use in research on nurse migration. The theory most frequently used to explain nurse migration is the push pull theory (Bach 2007, Kingma 2006, Kline 2003, Meija, Pizurki, & Royston, 1979). It offers an explanation of why nurses migrate but does not explain individual decision making and has been criticized for its inability to explain why people decide not to migrate (Arango 2000, De Jong & Fawcett 1981). This theory is also limited because it focuses on the antecedents of nurse migration and does not explain its characteristics or consequences.

De Jong and Fawcett (1981) developed the Value-Expectancy framework, based on the theory of planned behavior (Ajzen, 1988), to study migration decision- making. "The model assumes migration is purposive behaviour, that is, that the potential migrant makes a conscious decision to migrate or not to migrate through a process by which perceived consequences are weighed and evaluated" (De Jong & Fawcett, 1981, p. 57). Nurse migrants, like all migrants, make a

decision to move for better pay, working conditions, professional development, personal safety, or adventure (Kingma, 2006; Kingma, 2007). This framework had the potential to provide valuable insights into how an individual nurse arrives at the decision to migrate by weighing a complex array of personal values against the expectation of meeting them.

The causes and impact of nurse migration have been described and debated extensively in the literature but there has been limited primary research on the topic and a critical need for more research has been identified to guide practice and policy (Buchan, 2004; Buchan, Kingma, & Lorenzo, 2005; Haour-Knipe & Davies, 2008; Kingma, 2006; McGillis Hall et al., 2009).

In addition, understanding the overall causes of nurse migration has been identified as an essential step in improving health human resource planning (Brush, 2008; Kingma, 2001). The question often asked in nurse migration is "What distinguishes the nurse who decides to stay and the nurse who leaves family, friends and familiar culture to work abroad?" (Kingma, 2004, p. 197). Nurse migration studies are required from both a global perspective (issues common to all nurse migrants) and a national perspective (issues common to nurse migrants because they live in a specific location). The specific research questions which guided these studies are presented in the next section.

Statement of the Purpose

The purpose of this research is twofold: first to explore the migration intentions of nurse graduates in a Canadian border city and second, the factors influencing these intentions. Specific questions included: (1)What are their migration intentions? (2) What are the factors influencing their decision making? (3) Can a framework be constructed to explain their decision making?

To answer these questions, answers to additional questions were required:

1. How is the concept of migration defined and used in the nurse migration literature?
2. What theories have been used to study nurse migration?
3. What research has been conducted on nurse migration and commuter migration?
4. What studies have been conducted on the migration intentions of nurse graduates before they enter the workforce?
5. What factors (values, expectations, personal characteristics and other) influence the migration decision making of potential nurse migrants?

These questions were addressed through an extensive literature review, by completing a concept analysis on nurse migration, an integrative review of the use of case study methodology in the study of nurse migration, and by conducting a mixed methods study. All are briefly described in the next section.

Content of Thesis

This section provides an overview of each chapter, their contribution to the thesis, the research objectives and/or questions, and the methodology used. All papers were written according to the requirements of the journal to which the manuscript was submitted.

Chapter Two

The article reports on the results of a qualitative study examining how migration is defined and used in the nurse migration literature.

The specific objectives of this chapter were to:

1. Explore the concept of migration by examining its use, defining attributes, antecedents, and consequences in the nurse migration literature.
2. Based on the findings, propose a theory to guide the study of nurse migration.

The concept analysis method developed by Walker and Avant (2005) guided the analysis. This approach involves eight sequential steps used iteratively: selecting the concept; determining the aim of the analysis; identifying all uses of the concept; determining defining attributes; developing model cases; constructing additional cases (e.g., borderline, related, contrary, invented, and illegitimate cases); identifying antecedents and consequences; and defining empirical referents.

This paper, titled *Migration: A Concept Analysis from a Nursing Perspective,* has been published in the *Journal of Advanced Nursing* (Freeman, Baumann, Blythe, Fisher, Akhtar-Danesh, 2011). Permisson has been granted by the managing editor of the journal to include the article in my thesis (see Appendix A).

Chapter Three

This article reports on the use of a specific research methodology in the study of nurse migration. An integrative review was conducted on the use of case study methodology (CSM) in nurse migration research. This methodology was chosen because of its strong historical tradition in the study of migrant populations (Tellis, 1997). Whittemore and Knafl's (2005) integrative review method guided the analysis. The process includes: problem formulation, a literature search, data evaluation, data analysis and interpretation, and presentation of the findings (Cooper, 1998; Whittemore & Knafl, 2005).

The research questions were:

1. Where have studies using CSM in nurse migration research been conducted and by whom?
2. What was the purpose of the study?
3. What methods were used?
4. What themes were explored in the nurse migration research using CSM?

This article, titled *Case Study Methodology in Nurse Migration Research: An Integrative Review*, has been accepted for publication in the *Applied Nursing Research* journal (Freeman, Baumann, Blythe, Fisher, Akhtar-Danesh, in press). Permisson has been granted by the managing editor of the journal to include the article in my thesis (see Appendix B).

Chapter Four

This article is a report of a study exploring the migration intentions of a class of baccalaureate nursing students graduating in June 2011 in a Canadian border community and their intent to migrate from Canada for their first nursing job. The value-expectancy (V-E) framework (De Jong & Fawcett, 1981) guided the study and was tested to determine if it contributed to our ability to understand the factors that influenced their decision-making.

The research questions were:

1. What are the migration intentions of these graduates?
2. What factors (values, expectations, personal characteristics and other) influence their migration intentions?
3. Does the Value-Expectancy framework contribute to our understanding of these factors?

An explanatory sequential mixed methods design was used (Creswell & Plano Clark, 2011). In the first quantitative phase of the study, data was collected

by a web-based self-report survey. In the qualitative phase, semi-structured interviews were conducted to address findings arising from the survey. In keeping with this approach, sequential data analysis was completed with the findings of both phases integrated in the discussion (Creswell & Plano Clark, 2011).

This study, titled *Workforce Integration of New Nurses: Employment Goals, Expectations, and Migration Intentions of Nursing Graduates in a Canadian Border City*, has been submitted for publication in the *Journal for International Nursing Studies*.

References

Aiken, L., Buchan, J., Sochalski, J., Nichols, B., & Powell, M. (2004). Trends in international migration. *Health Affairs, 23* (3), 69-77.

Ajzen, I. (1988). *Attitudes, personality and behavior.* Chicago: The Dorsey Press.

Arango, J. (2000). Explaining migration: A critical view. *International Social Science Journal, 52* (165), 283-296. doi: 10.1111/1468-2451.00259

Bach, S. (2007). Going global? The regulation of nurse migration in the UK. *British Journal of Industrial Relations, 45*(2), 383-403. doi: 10.1111/j.1467-8543.2007.00619.x

Baumann, A., O'Brien-Pallas, L., Armstrong-Stassen, M., Blythe, J., Bourbonnais, R., Cameron, S.,...Ryan, L. (2001). *Commitment and care: The benefits of a healthy workplace for nurses, their patients and the system A policy synthesis.* Retrieved from Canadian Health Services Research Foundation: http://www.chsrf.ca/funding_opportunities/commissioned_research/polisyn/pdf/pscomcare_e.pdf

Baumann, A., Blythe, J., Kolotylo, C., & Underwood, J. (2004). *Immigration and emigration trends: A Canadian perspective.* Retrieved from Canadian Nurses Association: http://www.cna-nurses.ca/cna/documents/pdf/publications/immigration_emigration_trends_e.pdf

Baumann, D., Yan, J., Degelder, J., & Malikov, K. (2006). *Retention strategies for nursing: A profile of four countries, Human Health Resource 5.* Hamilton: Nursing Health Services Research Unit.

Brush B. (2008) Global nurse migration today. *Journal of Nursing Scholarship, 40*(1), 20-25.

Buchan, J. (2004). The migration of nurses: Trends and policies. *Bulletin of the World Health Organization, 82*, 587-594.

Buchan, J., & Calman, L. (2004). The global shortage of Registered Nurses: An overview of issues and actions. Retrieved from http://www.icn.ch/global/shortage.pdf

Buchan, J., Kingma, M., & Lorenzo, F. (2005). *International migration of nurses: Trends and policy implications.* Geneva: International Council of Nurses.

Buchan, J. (2006). The impact of global nurse migration on health services delivery. *Policy, Politics, & Nursing Practice, 7* (3), 16S-25S.

Cameron, S., Armstrong-Stassen, M., Rajacich, D., & Freeman, M. (2010). Working in Canada or the United States: Perceptions of Canadian nurses living in a border community. *Nursing Leadership, 23* (3), 30-45.

Canadian Nurses Association. (2007). *Canada's Registered Nurses: Trends and realities.* Retrieved from Canadian Nurses Association: http://www.cna-

nurses.ca/CNA/documents/pdf/publications/Media_Backgrounder_May9_2007_e.pdf

Cooper, H. (1989). *Integrating research: A guide for literature reviews.* London: Sage.

Creswell, J. & Plano Clark, V. (2011). *Designing and conducting mixed methods research.* Thousand Oaks, California: Sage.

De Jong, G., & Fawcett, J. (1981). Motivations for migration: An assessment and a value-expectancy research model. In G. De Jong, & R. Gardner, *Migration decision making: Mutlidisciplinary approaches to microlevel studies in developed and developing countries* (pp. 13-58). New York: Pergamon Press.

Freeman, M., Baumann, A., Blythe, J., Fisher, A., Akhtar-Danesh, N. (2011). Migration: a concept analysis from a nursing perspective. *Journal of Advanced Nursing*. Advance online publication. doi: 10.1111/j1365-2648.2011.05858.x

Freeman, M., Baumann, A, Blythe, J., Fisher, A., & Akhtar-Danesh, N.(in press). Case Study Methodology in Nurse Migration Research: An Integrative Review. *Applied Nursing Research.*

Haour-Knipe, M., & Davies, A. (2008). *Return migration of nurses*. Geneva: International Centre on Nurse Migration.

International Organization for Migration. (2004). *International migration law: Glossary on migration.* Geneva: International Organization for Migration.

Kingma, M. (2001). Nursing migration: Global treasure hunt or disaster-in-the-making? *Nursing Inquiry, 8* (4), 205-212.

Kingma, M. (2004). Nurse migration is only a symptom, not the disease. *International Nursing Review, 51*, 196-197.

Kingma, M. (2006). Nurses on the move: Migration and the global health economy. London: Cornell University Press.

Kingma, M. (2007). Nurses on the move: A global overview. *HSR: Health Services Research, 42* (3), 1281-1298.

Kline, D. (2003). Push and pull factors in international nurse migration. *Journal of Nursing Scholarship, 35* (2), 107-111.

McGillis Hall, L., Pink, G., Jones, C., Leatt, P., Gates, M., & Peterson, J. (2009). Is the grass any greener? Canada to United States of America nurse migration. *International Nursing Review, 56*, 198-205.

Meija, A., Pizurki, H., & Royston, E. (1979). Physician and nurse migration: Analysis and policy implications. Geneva:World Health Organization.

Nguyen, L., Ropers, S., Nderitu, E., Zuyderduin, A., Luboga, S., & Hagopian, A. (2008). Intent to migrate among nursing students in Uganda: Measures of

the brain drain in the next generation of health professionals. *Human Resources for Health, 6* (5). doi: 10.1186/1478-4491-6-5.

Pink, G., McGillis Hall, L., & Leatt, P. (2004). Canadian-trained nurses in North Carolina. *Longwoods Review, 2* (2), Retrieved from www.longwoods.com/view.php?aid=17237&cat=368

Registered Nurses Association of Ontario. (2001). *Earning their return: When and why Ontario RNs left Canada, and what will bring them back.* Toronto: Registered Nurses Association of Ontario.

Tellis, W. (1997). Introduction to case study. *The Qualitative Report, 3*(2). Retrieved from http://www.nova.edu/ssss/QR/QR3-2/tellis1.html.

Tomblin Murphy, G., Birch, S., Alder, R., MacKenzie, A., Lethbridge, L., Little, L. & Cook, A. (2009). *Tested solutions for eliminating Canada's Registered Nurse shortage.* Ottawa: Canadian Nurses Association.

Troy, P., Wyness, L., & McAuliffe, E. (2007). Nurses' experiences of recruitment and migration from developing countries: A phenomenological approach. *Human Resources for Health, 5* (15). doi: 10.1186/1478-4491-5-15

Walker, L., & Avant, K. (2005). *Strategies for theory construction in nursing.* Upper Saddle River, New Jersey: Pearson Prentice Hall.

Whittemore, R., & Knafl, K. (2005). The integrative review: Updated methodology. *Journal of Advanced Nursing, 52* (5), 546-553.

CHAPTER TWO

Migration: A Concept Analysis from a Nursing Perspective

Michelle Freeman, MSN, RN
Doctoral Student, School of Nursing, McMaster University
Lecturer, Faculty of Nursing, University of Windsor

Andrea Baumann, PhD, RN
Associate Vice-President, Global Health, Faculty of Health Sciences
Scientific Director, Nursing Health Services Research Unit (NHSRU), McMaster Site

Jennifer Blythe, PhD
Associate Professor (part-time), School of Nursing & Research Associate NHSRU, McMaster University

Anita Fisher, PhD, RN
Associate Professor, School of Nursing & Senior Researcher NHSRU, McMaster University

Noori Akhtar-Danesh, PhD
Associate Professor of Biostatistics, School of Nursing, McMaster University

This article has been published.

Freeman, M., Baumann, A., Blythe, J., Fisher, A., Akhtar-Danesh, N. (2011). Migration: a concept analysis from a nursing perspective. *Journal of Advanced Nursing*, *68*(5), 1176-1186. doi: 10.1111/j1365-2648.2011.05858.x

Abstract

Title. Migration: a Concept Analysis from a Nursing Perspective

Aim. This paper is a report of a concept analysis of nurse migration.

Background. International migration is increasing and nurse migrants are active participants in this movement. Migration is a complex term and can be examined from a range of perspectives. Analysis of nurse migration is needed to guide policy, practice and research.

Data Sources. A literature search was undertaken using electronic literature indexes, specific journals and websites, internet search engines, and hand searches. No timeframe was placed on the search. Most literature found was published between 2001-2009. A sample of 80 documents met the inclusion criteria.

Method. Walker and Avant's approach guided the analysis.

Discussion. Nurse migration can be defined by five attributes: the motivation and decisions of individuals; external barriers and facilitators; freedom of choice to migrate; freedom to migrate as a human right, and dynamic movement. Antecedents of migration include the political, social, economic, legal, historical and educational forces that comprise the push and pull framework. The consequences of migration are positive or negative depending on the viewpoint and its affect on the individual and other stakeholders such as the source country, destination country, health care systems and the nursing profession.

Conclusion. This concept analysis clarified the complexities surrounding nurse migration. A nursing-specific middle-range theory was proposed to guide the understanding and study of nurse migration.

Keywords: concept analysis; migration; nurse migration; middle-range theory; human right

Summary Statement

What is already known about this topic

- Nurse migration is a growing global phenomenon as a result of the RN shortage in most countries.
- Migration is a complex term with many meanings that can be examined from a range of perspectives.
- Walker and Avant's concept analysis methodology is a standardized approach for clarifying antecedents, attributes and consequences.

What this paper adds

- The antecedents are the political, social (personal), economic, legal, historical and educational forces that comprise the push pull theory.
- The attributes include: the motivation and decisions of individuals; external barriers and facilitators; freedom of choice to migrate; freedom to migrate as a human right, and dynamic movement.
- The consequences of nurse migration can be positive or negative and depend on its affect on the individual, the family, and other stakeholders such as the source country, destination country, health care systems and the nursing profession.

Implications for policy and/or practice

- The identification of attributes, antecedents and consequences can guide the development of research instruments to study nurse migration.
- Categories of terms used to describe nurse migration in the literature reflect its complexity.
- Terms that label nurse migrants as outsiders such as "foreign nurses" should be used carefully because they could influence the acceptance and treatment of these nurses.

MIGRATION: A CONCEPT ANALYSIS FROM A NURSING PERSPECTIVE

INTRODUCTION

People have always migrated, either voluntarily in search of a better life or involuntarily, because of war, famine or persecution. International migration is a reality in our global community with the number of migrants doubling in the last four decades (International Organization for Migration [IOM] 2005). A significant proportion of these migrants are professional health care workers, specifically registered nurses (RNs) (Kingma 2007).

As one of the defining issues of the twenty-first century (IOM 2009), migration is an important area on which to focus attention. The IOM describes migration as "an essential, inevitable and potentially beneficial component of the economic and social life of every country and region" (IOM 2009). As the world is faced with a critical shortage of nurses, nurse migrants are of great interest nationally and internationally. These "on the move" nurses, migrate each year in search of better pay and working conditions, professional development, personal safety, or adventure (Kingma 2006a, Kingma 2007). Although there is a great deal of published literature on nurse migration in the past 10 to 15 years (Khaliq *et al*. 2009), the topic has received limited attention from the nursing community.

Migration is a complex term with many meanings that can be examined from a range of perspectives. Definitions have been described as vague, controversial, or contradictory and vary by country (IOM 2004, p. 3). Although migration theories have been evolving for many years, there are few examples of their use in research on nurse migration. Migration theories focus on various levels of analysis: micro levels concentrate on individual migration decisions, macro-levels on aggregate explanations, and the meso-level examines household and community level influences on migration (Hagen-Zanker, 2008). The theory most frequently used to explain nurse migration is the push pull theory (Meija *et al*. 1979, Kline 2003, Kingma 2006a, Bach 2007). This micro-level framework offers an explanation of why nurses migrate but not the individual's decision making. It has also been criticized for its inability to explain why people decide not to migrate (De Jong & Fawcett 1981, Arango 2000). These limitations affect our ability to describe, study, and/or address issues related to increasing rates of nurse migration.

This paper presents a concept analysis of nurse migration. Two aims guided this analysis: to understand how the concept of migration is used in nursing and to propose a middle-range theory to guide the study of nurse migration.

Background

A concept is a mental image of a phenomenon, an idea, a person, or an object (King 1988, Walker & Avant 2005). A concept analysis is a formal, linguistic exercise that examines the elements of a concept, its usage and how it is similar to or different from other related words (Walker & Avant 2005, p. 63). It is useful in clarifying words that are vague or overused so that everyone subsequently using the word will be speaking about the same thing (Walker & Avant 2005, p. 64). In addition, they provide precise definitions for use in theory and research (p. 74). Since concepts are dynamic and change over time, a concept analysis should never be regarded as a "finished product" (p. 64) but only as defining its attributes at the current time.

Migration is a commonly used word with explicit meaning and an unusual topic for a concept analysis in nursing. An analysis is usually done on abstract concepts such as quality of life (Haas 1999). Penrod and Hupcey (2005) state however, that an everyday concept with explicit meaning is inadequate for scientific inquiry. There is also no guarantee that everyday concepts are similarly understood. "Definitions- and this is true of all terminology, not only that related to migration- may vary according to a given perspective or approach" (IOM 2004, p. 3). Since the concept analysis process includes the identification of antecedents and consequences of nurse migration, it will contribute to a more complete understanding of the concept.

Conducting a concept analysis requires similar skills and level of rigour as other research methods (Baldwin & Rose 2009). The concept analysis method developed by Walker and Avant (2005) was used for this analysis. This approach involves eight sequential steps to be used iteratively: selecting the concept; determining the aim purpose of the analysis; identifying all uses of the concept; determining defining attributes; developing model cases; constructing additional cases (e.g., borderline, related, contrary, invented, and illegitimate cases); identifying antecedents and consequences; and defining empirical referents. This method was chosen because it is the most widely used in the literature (Hupcey *et al.* 1996), and is systematic (Brennan 1997, Xyrichis & Ream 2008). The first two steps of the process, choosing the concept and purpose, have been described. The analysis will continue with describing data sources and selection.

Data sources

In the past decade, there has been an explosion of interest in international migration (Favell 2008, p. 259). This presented a major challenge for this analysis given constraints of time and space and therefore required the development of clear inclusion criteria. An extensive literature review was conducted. All uses of the term migration were examined by reading as many different sources as possible since ignoring some uses could bias findings (Walker & Avant 2005).

Searches were performed on the general topic of migration and the specific subject of nurse migration. No limit was placed on the timeframe for the

search. Electronic literature indexes and specific journals were searched using keywords such as “migration” “immigration” “emigration”, “nurse migration”, “internationally educated nurses”, and “health worker migration” in full and truncated forms. Indexes included CINAHL, PubMed, SCOPUS, Sociological Abstracts and PsychINFO. Reference lists (ancestry searching) were used to locate relevant sources and specific journals and websites focusing on migration were searched. A Google search was also performed using the terms migration, nurse migration and human migration. Definitions of migration were sought in dictionaries, migration specific glossaries and in all the retrieved literature.

Data Selection

The literature represented diverse disciplines including nursing, law, human resources, psychology, sociology, anthropology, geography, demography, economics, statistics, political science, as well as policy and professional groups. Most publications on nurse migration were written during the last eight years (2001-2009). Approximately 500 articles, documents, and books were initally scanned for inclusion based on the following criteria: (a) English language; (b) contribution to understanding of the concept of migration; (c) contribution to the definition, attributes, antecedents and/or consequences of nurse migration; (d) focus on out of country rather than internal migration; and (e) reference to a professional registered nurse in his/or her home country. Using these criteria approximately 150 documents were identified. All documents were read in full and excluded if they did not meet criteria.

The final sample of 80 documents included articles, research, grey literature, and books. An inductive content analysis approach was used to organize the information (Elo & Kyngas 2007). Each document was reviewed and information was tracked by using sticky notes. The information was transferred to a data tracking form and summarized in a matrix to extract defintions and themes. Tracking is not usually explicitly described and/or done but it was critical to ensuring the integrity of this complex analysis.

RESULTS

Identifying uses of the concept of migration and nurse migration

The third step in the process was to identify all uses of the concept. According to the Merriam-Webster dictionary (2009) the meaning of migration is "to move from one country, place, or locality to another"; "to pass usually periodically from one region or climate to another for feeding or breeding"; "to change position in an organism or substance". Migration, therefore, describes the movement of individuals, groups, organisms or objects such as humans, birds, insects, animals, planets, cells, and data.

Since the focus of this concept analysis is human migration, definitions focusing on humans were explored. Migration, according to the Glossary on Migration (IOM 2004, p. 41), is "A process of moving, either across an international border, or within a State. It is a population movement, encompassing any kind of movement of people whatever its length, composition,

and causes; it includes migration of refugees, displaced persons, uprooted people, and economic migrants". Migrant is described in the same source as having no universally accepted definition but "usually understood to cover all cases where the decision to migrate is taken freely by the individual concerned for reasons of "personal convenience" and without intervention of an external compelling factor" (p. 40). Even these two explanations, from the same source, present conflicting views with one including forced movement (e.g., refugees); the second a decision to move taken freely. Similar confusion was found in literature on nurse migration.

A specific definition of migration was "… the crossing of the boundary of a political or administrative unit for a certain minimum period of time" and includes the "movement of refugees, displaced persons, uprooted people as well as economic migrants" (United Nations Educational, Scientific and Cultural Organization [UNESCO] 2005). It is interesting that this definition does not specify the individual leaving the home country and timeframes are vague.

Migration is also described using a variety of terms that attempt to categorize and describe migrants (see Table 1). These include (a) movement (e.g., external), (b) motivation (e.g., economic), (c) freedom of choice (e.g., voluntary), (d) length of time of migratory period (e.g., temporary), (e) frequency of moves (e.g., circular), (f) status of migrant (e.g., skilled), and (g) legal status.

Table 1

Categories and Terms for Migrants/ Migration

Categories and Terms
(a) Movement
*Internal
*External
*Emigration
*Out-migration
*Immigration
*Cross border commuters
*Commuter migration
*Shuttle migration
*Cross-industry
*Geographical
(b) Motivation
*Economic migrant
*Quality- of- life migrant
*Career-move
*Partner
*Adventurer
*Holiday workers
Student
*Family reunification
(c) Freedom of choice
*Voluntary
Involuntary, forced, population transfer
Impelled, reluctant or imposed
Survival
(d) Length of time of migratory period
Seasonal
*Temporary
*Permanent
(e) Frequency of moves
*Carousel
*Step
*Chain
*Return
*Circular
(f) Status of migrant
*Skilled or highly skilled
(g) Legal status
*Legal
Illegal, irregular or undocumented

Note. *Indicates terms found in nurse migration literature

These terms were not standardized. For example, Brettel and Hollifield (2008, p. 21) used migration to describe movement within borders, immigration to describe crossing national borders but identified that some disciplines prefer the term mobility to migration. Out-migration was an alternative term found in the nurse migration literature for emigration (Buchan *et al.* 2005).

No definition of nurse migration was found in the search. Presumably authors assumed a common understanding of the term. A number of different terms were used to refer to the nurse migrant (see Table 2).

Table 2

Terms Used For Nurse Migration/Nurse Migrants in Literature

Term	Source
Overseas nurses	Troy *et al.* (2007)
Overseas qualified nurses	Hawthorne (2001)
Overseas trained nurses	Allan *et al.* (2008)
Foreign-educated nurses	Aiken *et al*. (2004), Aiken (2007)
Foreign nurses	Brush *et al*. (2004), Kline (2003)
Nurse recruits	Brush *et al.* (2004)
Internationally Educated Nurses	Baumann e*t al.* (2006)
Internationally recruited nurses	Buchan *et al.* (2006)
International health worker	Ray *et al.* (2006)
Global nursing migration	Keatings (2006), Brush (2008), Khaliq *et al.* (2009)
International Registered Nurses	North (2007)
International nurses	Buchan *et al*. (2005)
International nurse migration	Kline (2003), Kingma (2008)
Non English Speaking Background Source Countries (NESB) and English Speaking Background Source Country (ESB)	Hawthorne (2001)
Canadian trained nurses	Pink *et al.* (2004)

They included "foreign" (Brush *et al.* 2004, Kline 2003), "foreign-educated" (Aiken *et al.* 2004, Aiken 2007), "nurse recruits" (Brush *et al.* 2004), "Canadian trained" (Pink *et al*. 2004), and "overseas qualified" (Hawthorne 2001). The decision of the authors regarding the choice of labels was not explicit. Some of these terms however, identified nurse migrants as outsiders or aliens and could have significant consequences for their acceptance and treatment. Kingma (2006a, p. 70) has identified racism and discrimination as the most serious problem that migrant nurses encounter. She paints a sad reality where migrants' are bullied, their professional skills are undermined and they are discriminated against in promotion and continuing educational opportunities. Other terms used such as trained versus educated communicate a different view and valuing of the nursing profession.

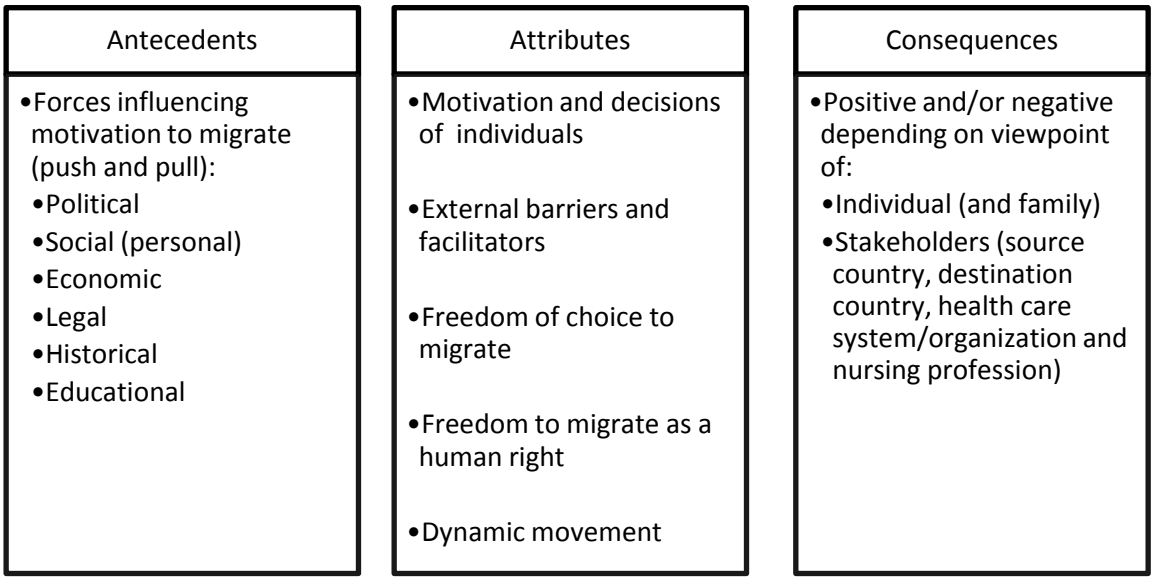
In summary, although there was no single definition of nurse migration, attributes recurred in the literature and will be described in the next section.

Defining attributes

The fourth step in the process was to describe the attributes, the cluster of characteristics most frequently associated with the concept in the literature (Walker & Avant 2005). Tracking and summarizing the characteristics required multiple revisions. As shown in Figure 1, five attributes were identified: (a) the motivation and decisions of an individual, (b) external barriers and facilitators, (c) freedom of choice, (d) migration as a human right, and (e) movement is dynamic. A brief overview of each follows.

Figure 1

Concept of nurse migration: antecedent, attributes and consequences



Migration is determined by the motivation and decisions of an individual

Motivation to migrate is a key characteristic associated with nurse migration. It has been described as a subjective decision-making process (Fawcett 1985) influenced by push and pull factors (Pink *et al.* 2004, Brush 2008, Kingma 2008, McGillis Hall *et al.* 2009). Motivation can be both intrinsic and extrinsic. Many theories and models have been offered to explain it including Equity Theory, Maslow's Hierarchy of Needs, Expectancy Theory (Winkelmann-Gleed 2006, p. 42), behavioural models (Fawcett 1985), and economic and social network theories (Teitelbaum 2008). Motivations driving nurse migration are

multifaceted and no theories have yet been developed to explain them (Kingma 2006a).

Migration is influenced by external barriers and facilitators

Barriers and facilitators to nurse migration, a recurrent theme in the literature, were classified as external when they were not under the control of the migrant. Major barriers to migration were language competency and inadequate educational preparation (Kingma 2006a, Kingma 2008). Facilitators of nurse migration assumed many forms. Nurse migrants, as professional or highly skilled migrants, were granted preferential treatment for admission to some host countries (IOM 2004). For example, labour mobility clauses in trade agreements between countries, such as the North American Free Trade Agreement (NAFTA), were written to facilitate migration (Blouin 2005, Aiken 2007). Countries' immigration policies have been modified to allow additional visas for skilled professionals, such as nurses (Aiken 2007). Improving access to the writing of licensing exams is another strategy. For example, the American exam (NCLEX-RN) has been made available since 2005 in many different countries to lessen the financial burden on qualified nurses who want to migrate to the U.S (Aiken 2007).

Entrepreneurs have emerged to facilitate nurse migration, now described as big business (Kingma 2006a). These include international nurse recruiting agencies that link nurses with jobs for profit (Brush *et al*. 2004, Perrin *et al*. 2007); governments, such as China, which organize groups of nurses to work in other countries and charge handling fees (Fang 2007); and the development of

new nursing schools to train nurses for export (Lorenzo *et al.* 2007). Barriers and facilitators in the complex global environment are constantly changing and evolving. Economic downturns and international events such as 9/11 can quickly result in new policies that limit immigration or make it more difficult (Kingma 2006a, Buchan 2007).

Freedom of choice to migrate

Freedom of choice in nurse migration can be described as a continuum from completely voluntary (taken freely), to reluctant (impelled), to completely involuntary (forced). All of these forms are described in the literature on nurse migration. Although many nurses view migration as voluntary, Kingma (2006a, p. 5) questioned, "Is migration a matter of choice or is it imposed on nurses as an obligation or [as a result of] constraint?" She and others stress that migration does not occur without strong push factors from the home country. "Without both sets of [push and pull] forces operating in unison, little migration would occur. In other words no matter how strong the "pull" forces, large scale migration will not take place from countries where strong "push" factors do not exist" (Meija *et al*. 1979, p. 102). For example, the lack of full time work in Canada acted as a strong push factor resulting in Canadian nurses migrating for full time work in the United States (McGillis Hall *et al*. 2009), a move that would not be considered truly voluntary.

Freedom to migrate is a human right

Nurse migration is characterized by the human right of freedom of movement. This right is articulated in Article 13 of the Universal Declaration of Human Rights which states "Everyone has the right to leave any country, including his own, and to return to his country" (United Nations 1948). This right is supported by the International Council of Nurses (2007) who state that all nurses have the right to migrate as a function of choice, regardless of their motivation. Although concerns were expressed in the literature about the negative consequences of nurse migration on some countries, no one recommended that the rights of nurses to migrate be denied (Buchan *et al*. 2005, Chikanda 2005, Buchan *et al*. 2006, Kingma 2006a, Thupayagale-Tshweneagae 2007, Kingma 2008).

Movement is dynamic

Nurse migration is dynamic, characterized by movement that is unpredictable and ever changing and not, as often portrayed, as a "one-way linear brain drain" (Buchan *et al*. 2005, p. 5, Humphries *et al.* 2008). Movement is influenced by both country-specific and broader global issues and the length of migratory periods and patterns of movement (e.g., circular; commuter) are diverse (Bach 2004, Buchan *et al.* 2005). The varieties of countries of origin, different demographic profiles and individual motivations as well as career goals contribute to the dynamic patterns of movement (Buchan 2004, Buchan *et al.* 2006, Perrin *et al.* 2007).

Model case to illustrate the concept of nurse migration

The next step in the concept analysis is to construct a model case that illustrates all of these attributes. The case can be constructed from real life, found in the literature or invented (Walker & Avant 2005) although it is recommended that cases be identified rather than constructed whenever possible (Rodgers 1989). A model case, adapted using elements from a study by Perrin and colleagues (2007) and others found in the literature is used.

Jeanette is a 24 year old who graduated from a university in the Philippines with a bachelor's degree in nursing. She has just taken her licensing exams, now offered in her home country, to work as a nurse in the U.S. She does not want to leave her family but there are no jobs at home. She will make $4,000 per month in the U.S., compared to $69 per month in the Philippines. This will allow her to send money home to support her family. She knows nurses are trained for export in her country but hoped that there would be job openings by the time she finished school. She is recruited through an agency that found her a job and arranged her travel. She migrates to the U.S., plans to obtain a graduate degree and work in other countries, such as Great Britain or Canada, before returning home.

All attributes occur in this case and illustrate the complexity of the concept. Jeanette demonstrated individual motivation in her decision to migrate. Her migration was facilitated by the availability of U.S. exams, jobs, higher income, and recruiters. She had the right to migrate but her decision was made reluctantly, rather than freely, because of lack of work in her home country. Her

migration path will be dynamic involving moves to other countries but it will be influenced by her motivations.

Since the development of other cases (e.g., borderline) does not contribute to concept clarification, Walker and Avant (2005) support omiting them.

Antecedents and consequences

The identification of antecedents and consequences is the next step in the process. The push and pull model is the dominiant framework for explaining nurse migration (Bach, 2007). The antecedents for nurse migration are the political, social (personal), economic, legal, historical and educational forces that comprise this framework (Meija *et al*. 1979, Kline 2003, Kingma 2006a). The pull factors are conditions in the destination country that attract and facilitate the migration of nurses; the push factors are conditions that encourage nurses to leave their own country (Kingma 2006a, p. 19). These factors usually mirror each other; for example, a nurse from a country making a low salary will be pulled to a country offering higher wages (Kingma 2006a, p.19). The main pull factor is the world-wide shortage of nurses with countries competing for scarce resources. Common factors are the desire for better incomes and benefits, full time work, healthy work environments, professional development opportunities, better resourced health systems, and safe and supportive work environments (Pink *et al.* 2004, Buchan *et al.* 2005, International Centre on Nurse Migration [ICNM] 2008, McGillis Hall *et al.* 2009). Other pulls include a shared language, appropriate nursing qualifications and family, historical and trade ties to the destination

country (Ross *et al.* 2005, Kingma 2006a, Winkelmann-Gleed, 2006). Newly emerging pull factors include aggressive recruitment agencies who receive large payments per nurse and encourage migration by funding the move and linking nurses with jobs (Brush *et al.* 2004), the Internet which has increased awareness of opportunities around the world for nursing skills, and the growing big business of educating nurses for export (Kingma 2006b, Lorenzo *et al.* 2007).

Nurse migration can be considered both positive and negative depending on the viewpoint and their affect on the individual and stakeholders. Stakeholders include the source country, destination country, health care systems and the nursing profession. For example, positive consequences for the individual (e.g., a well paying secure job) may produce negative consequences for the home country (e.g., loss of a scarce nursing resource). The growing mobility of nurses has been criticized as occurring without a careful analysis of the implications of this movement on the nurses and on health care delivery systems that both send and receive them (Brush, Sochalski, & Berger, 2004). One consequence for source countries is a brain drain that diminishes nursing resources for their population (Meleis 2003, Pink *et al.* 2004, Perrin *et al*. 2007, Kingma 2008, McGillis Hall *et al*. 2009).

There are social costs to the individual who migrates (Kingma 2006). Adapting to a new country, a new culture, and an unfamiliar health care environment, with or without a support network can be a monumental task. Often

these nurses, who may have children in their home country, are responsible for financially supporting their families. In addition, they frequently experience discrimination and exploitation by agencies and institutions in the destination country (Hawthorne 2001, Allan *et al.* 2008, Kingma 2008). There are also positive consequences. In many countries in the world, a nursing license is viewed as a ticket to a better life (McCarthy 2009). Remittances sent home improve the family life in the home country through redistribution of global wealth (ICNM 2007, Kingma 2008). There is improved personal and professional safety and empowerment for some migrants (Meleis 2003, Kingma 2008) who leave unsafe environments and countries with gender inequities (Hawthorne 2001, Meleis 2003, Buchan *et al.* 2005, Buchan 2006, Thomas 2006, Allan *et al*. 2008, Bourgeault & Wrede 2008).

Although the Philippines has had the most success in training nurses for export and benefited as a country from the remittances sent home, it serves as an example of unexpected negative consequences. The ease of nurse migration has resulted in physicians retraining as nurses to migrate, a waste of an already limited health human resource (Brush *et al*. 2004). The country also experienced a decrease in the quality of nursing education as evidenced by high exam failure rates as a result of schools being pressured to educate large numbers of nurses for both foreign and domestic markets (Perrin *et al*. 2007).

Nurse migration has consequences for the nursing profession, some known and others which are emerging. There appears to be an attitude in many countries that a supply of nurses exists somewhere in the world waiting to be enticed to migrate to their country. As a result, many developed countries are not educating enough nurses to meet their needs and instead, rely on the recruitment of nurses from other countries to address shortages (Buchan 2006). Institutions have also been accused of recruitment from abroad rather than raising salaries and improving working environments to retain nurses (Brush *et al.* 2004). Nurse migrants also stress health systems resources if they require language competency training, orientation to vastly different health care systems and, to autonomous professional nursing roles (Hawthorne 2001, Buchan *et al.* 2005). A positive outcome is that nurses from different cultures and countries contribute to making the nursing profession more culturally aware (Meleis 2003, Kingma 2008). Finally, the uncontrolled growth in the business of exporting nurses for profit presents unknown consequences for the profession.

Defining empirical referents

The final step in the concept analysis is to determine the empirical referents. In this step, the question is asked, "If we were to measure this concept or determine its existence in the real world, how do we do so?" (Walker & Avant 2005, p. 73). While nurse migration, the actual movement of nurses, can be measured in many ways, it has been a challenge for most researchers. Data come

from a variety of sources and are collected by different organizations for different uses (Diallo 2004). The lack of data accuracy is usually identified as a limitation in most studies.

The attributes of nurse migration, as well as its antecedents and consequences can be examined using a combination of qualitative, quantitative and mixed methods. For example, a survey in combination with focus groups could be used to explore motivations for migration, perceptions of freedom of choice and human rights, and explore the facilitators, barriers and dynamic nature of the process. The challenge for the researcher is to understand the complex nature of these characteristics to ensure a robust research design to capture the many variables of interest.

One instrument was found that measures immigration-specific distress. The Demands of Immigration (DI) Scale, developed by Aroian and colleagues (1998), was created for use with other populations but tested with nurse migrants (Tsai 2002, Beechinor & Fitzpatrick 2008). Standardized measures and approaches would contribute greatly to the understanding of nurse migration and allow findings to be compared to or generalized in different contexts and countries.

DISCUSSION

Conducting this concept analysis was a challenging exercise which began with choosing a model. Although there were publications on specific models, examples of applications of models, and articles criticizing the approaches and/or

use of concept analysis in nursing (Paley 1996, Hupcey & Penrod 2005, Beckwith *et al.* 2008) there was no guidance to assist in the choice. To advance this scientific process, it is recommended that several models be used concurrently to analyze the same concept. This would test the strength and limitations of different models and allow for examination of the findings through the use of different approaches.

The concept analysis process was found to be a challenging undertaking requiring the same skills and level of rigour as any research method (Baldwin & Rose 2009). Walker and Avant's (2005) process, presented as simple steps, was found to be overly simplified related to the scope of the literature review and organizing and synthesizing the findings. Although they state that a review of the literature helps support and validate the attributes, they provided no direction on how to organize a review except by extensive reading in as many different sources as possible. Therefore, the first hurdle to clear was the huge volume of literature on the topic of migration and determining relevant literature from irrelevant. The search involved not just the usual sources, but also a large number of websites dedicated to the topic of migration; for example the Migration Policy Institute, Mobility of Health Professionals, Global Migration Group, and International Centre on Nurse Migration (to name only a few). This increased the complexity of the literature review. Since a concept analysis involves examining all uses of the concept, it was a challenge to conduct a comprehensive review and not get lost in the process.

Another hurdle was organizing the findings. Defining attributes, the heart of the concept analysis process, has been criticized as an arbitrary process (Paley 1996). Examining other methods and reviewing information on qualitative content analysis were necessary to develop a method for collecting, organizing and managing the data, and distilling defining attributes (Paley 1996, Elo & Kyngas 2007). These insights on the challenges are meant to contribute to improving the process and offer some guidance to novice analysts.

Regardless of these challenges, this concept analysis on nurse migration has contributed to nursing in several ways. The first aim was to understand how the concept of migration is used in nursing. The results can inform nurses in education, administrative, and research positions who are involved directly and indirectly with nurse migration. It has not only deepened the understanding of the characteristics related to this complex concept, it has clarified some of the misunderstandings related to human rights, freedom of choice and characteristics of nurse migration. It has also alerted nursing leadership that nurse migration is a complex and dynamic process and there will be no simple solutions to the issues surrounding it (Buchan *et al*. 2006). An unexpected contribution was that through this analysis of the literature, awareness was raised that authors need to choose the labels for nurse migrants with caution as they may be unwittingly contributing to the alienation of and discrimination against this group. This is an important caution and reminder about the use of language and labels in our research and writings.

The second aim was to generate a discipline-specific theory to guide the study of nurse migration. A middle-range theory is a set of related ideas with suggested relationships among the concepts depicted in a model (Smith & Liehr 2003). It is narrower in scope than a grand theory and comprised of concepts that are empirically measurable (Fawcett 1997). The identification of the attributes, antecedents and consequences represents a framework for a middle range theory of nurse migration. Although requiring testing and further development, this theory is more robust than the push pull theory which focuses only on the forces influencing the decision to migrate (antecedents). It offers a more complete and explicit model of this complex concept to guide policy and research. For example, understanding that the consequences of nurse migration should be examined through the eyes of all stakeholders is important for policy makers. This theory could also guide the development of a predictive model of nurse migration to guide nursing human resource planning.

CONCLUSION

This paper provided unique insights into conducting a concept analysis. The analysis suggested that nurse migration is a human right, characterized by dynamic movement and a continuum of freedom of choice, guided by individual motivation and decision-making but influenced by external barriers and facilitators. Nurse migration is on the rise. The consequences of this movement will affect nursing practice and healthcare throughout the world. Although there

has been a growing interest in nurse mobility in the past 10 years, there is little primary research and therefore, little evidence to guide practice, policy, or research (Haour-Knipe & Davies, 2008; McGillis Hall *et al*. 2009). This concept analysis proposes a middle-range theory of nurse migration to guide this much needed research.

References

Aiken L., Buchan J., Sochalski J., Nichols B. & Powell M. (2004) Trends in international migration. *Health Affairs* **23**, 69-77.

Aiken L. (2007) U.S. nurse labor market dynamics are key to global nurse sufficiency. *Health Services Research* **42**, 1299-1320.

Allan H., Tschudin V. & Horton K. (2008) The devaluation of nursing: a position statement. *Nursing Ethics* **15**, 549-556.

Arango J. (2000) Explaining migration: a critical review. *International Social Science Journal,* **52**(165), 283-296.

Aroian K., Norris A., Tran T. & Schappler-Morris N. (1998) Development and psychometric evaluation of the Demands of Immigration scale. *Journal of Nursing Measurement* **6**, 175-194.

Bach S. (2004) Migration patterns of physicians and nurses: still the same story? *Bulletin of the World Health Organization* **82**, 624-625.

Bach S. (2007) Going global? The regulation of nurse migration in the UK. *British Journal of Industrial Relations* **45**, 383-403.

Baldwin M. & Rose P. (2009) Concept analysis as a dissertation methodology. *Nurse Education Today* **29**, 780-783.

Baumann A., Blythe J., Rheaume A. & McIntosh K. (2006) *Internationally educated nurses in Ontario: maximizing the brain gain.* Nursing Health Services Research Unit, McMaster University, Hamilton, Ontario.

Beckwith S., Dickinson A. & Kendall S. (2008) The "con" of concept analysis: a discussion paper which explores and critiques the ontological focus, reliability and antecedents of concept analysis frameworks. *International Journal of Nursing Studies* **45**, 1831-1841.

Beechinor L. & Fitzpatrick J. (2008) Demands of immigration among nurses from Canada and the Philippines. *International Journal of Nursing Practice* **14**, 178-187.

Blouin C. (2005) NAFTA and the mobility of highly skilled workers: the case of Canadian nurses. *The Estey Centre Journal of International Law and Trade Policy.* Retrieved from http://www.esteycentre.ca/journal/j_pdfs/blouin6-1.pdf on 10 July 2009.

Bourgeault I. & Wrede S. (2008) Caring beyond borders: comparing the relationship between work and migration patterns in Canada and Finland. *The Canadian Journal of Public Health* **99** (Supplement 2), S22-26.

Brennan M. (1997) A concept analysis of consent. *Journal of Advanced Nursing* **25**(3), 477-484.

Brettel C. & Hollifield J. (eds.). (2008) *Migration Theory:Talking Across Disciplines.* Routledge, New York.

Brush B., Sochalski J. & Berger A. (2004) Imported care: recruiting foreign nurses to U.S. health care facilities. *Heatlh Affairs* **23**(3), 78-87.

Brush B. (2008) Global nurse migration today. *Journal of Nursing Scholarship* **40**(1), 20-25.

Buchan J. (2004) International rescue? The dynamics and policy implications of the international recruitment of nurses to the UK. *Journal of Health Service Research Policy* **9** (Supplement 1), 10-16.

Buchan J., Kingma M. & Lorenzo F (2005) *International migration of nurses: trends and policy implications,* International Council of Nurses, Geneva.

Buchan J. (2006) The impact of global nurse migration on health services delivery. *Policy, Politics, & Nursing Practice* **7**(3), 16S-25S.

Buchan J., Jobanputra R., Gough P. & Hutt R. (2006) Internationally recruited nurses in London: a survey of career paths and plans. *Human Resources for Health* **4**(14). doi:10.1186/1478-4491-4-14

Buchan J. (2007) International recruitment of nurses: policy and practice in the United Kingdom. *Health Services Research* **42**(3), 1321-1335. doi:10.1111/j.1475-6773.2007.0071.x

Chikanda A. (2005) Nurse migration from Zimbabwe: analysis of recent trends and impacts. *Nursing Inquiry* **12**(3), 162-164.

De Jong G. & Fawcett J. (1981) Motivations for migration: An assessment and a value-expectancy research model. In M*igration Decision Making: Mutlidisciplinary Approaches to Microlevel Studies in Developed and Developing Countries*. (De Jong G. & Gardner R., eds),. Pergamon Press, New York, NY, pp. 13-58.

Diallo K. (2004) Data on migration of health workers: sources, uses and challenges. *Bulletin of World Health Organization* **82**, 601-607.

Elo S. & Kyngas H. (2007) The qualitative content analysis process. *Journal of Advanced Nursing* **62**(1), 107-115.

Fang Z. (2007) Potential of China in global nurse migration. *Health Services Research* **42**(3), 1419-1428. doi:10.1111/j.1475-6773.2007.00717.x

Favell A. (2008) Rebooting migration theory: interdisciplinary, globality, and postdisciplinarity in migration studies. In *Migration theory: Talking across Disciplines* (Brettel, C. & Hollifield, J. eds.), Routledge, New York, NY, pp. 259-278.

Fawcett J. (1985) Migration psychology: new behavioral models. *Population and Environment* **8** (1/2), 5-14.

Fawcett J. (1997) The structural hierarchy on nursing knowledge: components and their definitions. In *The Language of Nursing Theory and Metatheory* (King I. & Fawcett J., eds), Sigma Theta Tau International Honor Society of Nursing, Indianapolis, IN, pp. 1-7.

Haas, B. (1999). A multidisciplinary concept analysis of quality of life. *Western Journal of Nursing Research* **21**(6), 728-742.

Hagen-Zanker J. (2008) *Why do people migrate? A review of the theoretical literature.* Social Science Research Network. Retrieved from http://ssrn.com/abstract=1105657 on 10 October 2010.

Haour-Knipe M. & Davies A. (2008) *Return migration of nurses,* International Centre on Nurse Migration, Geneva.

Hawthorne L. (2001) The globalisation of the nursing workforce: barriers confronting overseas qualified nurses in Australia. *Nursing Inquiry* **8**(4), 213-229.

Humphries N., Brugha R. & McGee H. (2008) Overseas nurse recruitment: Ireland as an illustration of the dynamic nature of nurse migration. *Health Policy*, **87**, 264-272.

Hupcey J. & Penrod J. (2005) Concept analysis: examining the state of the science. *Research and Theory for Nursing Practice: An International Journal* **19**, 197-208.

Hupcey J., Morse J., Lenz E & Tasón M. (1996) Wilsonian methods of concept analysis: a critique. *Scholarly Inquiry for Nursing Practice* **10**(3), 185-210.

International Centre on Nurse Migration. (2007) *International Nurse Migration and Remittances Fact Sheet.* Retrieved from http://www.intlnursemigration.org/assets/pdfs/Nurse%20Migration%20Remit%20fact%20sheet%20US.pdf on 15 June 2009.

International Centre on Nurse Migration. (2008) *Return Migration of Nurses.* Retrieved from http://www.intlnursemigration.org/assets/pdfs/Return%20Migration%20fact%20sheet%20US.pdf on 14 June 2009.

International Council of Nurses. (2007) *Nurse Retention and Migration.* Retrieved from http://www.icn.ch/PS_C06_NurseRetenMigration.pdf on 17 June 2009.

International Organization for Migration. (2004) *International Migration Law: Glossary on Migration.* International Organization for Migration, Geneva.

International Organization for Migration. (2005) *World Migration 2005: Costs and Benefits of International Migration.* International Organization for Migration, Geneva.

International Organization for Migration. (2009) *Facts and Figures.* Retrieved from http://www.iom.int/jahia/Jahia/about-migration/facts-and-figures/lang/en on 14 June 2009.

Keatings M. (2006) Health services delivery: reframing policies for global nursing migration in North America: a Canadian perspective. *Policy, Politics, & Nursing Practice* **7** (3), 62S-65S.

Khaliq A., Broyles R. & Mwachofi A. (2009) Global nurse migration: its impact on developing countries and prospects for the future. *Nursing Leadership* **22**(1), 24-50.

King I. (1988) Concepts: essential elements of theories. *Nursing Science Quarterly* **1**, 22-25.

Kingma M. (2006a) *Nurses on the Move: Migration and the Global Health Economy*, Cornell University Press, London.

Kingma M. (2006b) Nurse migration: mini-business, big business. *Harvard Health Policy Review*, **7**(1), 1002-112.

Kingma M. (2007) Nurses on the move: a global overview. *Health Services Research* **42**(3), 1281-1298.

Kingma M. (2008, May 31) Nurses on the move: historical perspective and current issues. *OJIN: The Online Journal of Issues in Nursing* **13**(2)

Retrieved from http://www.nursingworld.org/MainMenuCategories/ANAMarketplace/ANAPeriodicals/OJIN/TableofContents/vol132008/No2May08/NursesontheMove.aspx on 10 June 2009.

Kline D. (2003) Push and pull factors in international nurse migration. *Journal of Nursing Scholarship* **35**(2), 107-111.

Lorenzo F., Galvez-Tan J., Icamina K. & Javier L. (2007) Nurse migration from a source country perspective: Philippine country case study. *Health Services Research* **42**(3), 1406-1418. doi:10.1111/j.1475-6773.2007.00716.x

McCarthy C. (2009) Adapting nurse education in the face of nurse migration. *International Nursing Review* **56**(2) 148-149.

McGillis Hall L., Pink G., Jones C., Leatt P., Gates M. & Peterson J. (2009) Is the grass any greener? Canada to United States of America nurse migration. *International Nursing Review* **56**, 198-205.

Meija A., Pizurki H. & Royston E. (1979) *Physician and nurse migration: analysis and policy implications*, World Health Organization, Geneva.

Meleis A. (2003) Brain drain or empowerment? *Journal of Nursing Scholarship* **35**(2), 105.

Merriam-Webster Collegiate Online Dictionary. (2009) *Migration.* Retrieved from http://www.merriam-webster.com/dictionary/migration on 8 June 2009.

North N. (2007) International nurse migration: impacts on New Zealand. *Policy, Politics & Nursing Practice* **8**(3), 220-228.

Paley J. (1996) How not to clarify concepts in nursing. *Journal of Advanced Nursing* **24**, 572-578.

Penrod J. & Hupcey J. (2005) Enhancing methodological clarity: principle-based concept analysis. *Journal of Advanced Nursing* **50**(4), 403-409.

Perrin M., Hagopian A., Sales A. & Huang B. (2007) Nurse migration and its implication for Philippine hospitals. *International Nursing Review* **54**, 219-226.

Pink G., McGillis Hall L. & Leatt P. (2004) Canadian-trained nurses in North Carolina. *Longwoods Review* **2** (2), 2-10. Retrieved from www.longwoods.com/view.php?aid=17237&cat=368 on 17 July 2009.

Ray K., Lowell B. L. & Spencer S. (2006) International health worker mobility: causes, consequences, and best practices. *International Migration* **44**(2), 181-203.

Rodgers B. (1989) Concepts. analysis and the development of nursing knowledge: the evolutionary cycle. *Journal of Advanced Nursing* **14**, 330-335.

Ross S., Polsky D. & Sochalski J. (2005) Nursing shortages and international nurse migration. *International Nursing Review* **52**, 253-262.

Smith M. & Liehr P. (2003) Introduction: middle range theory and the ladder of abstraction. In *Middle Range Theory for Nursing* (Smith M. & Liehr P., eds), (pp. 1-23). Springer, New York, NY, pp. 1-23.

Teitelbaum M. (2008) Demographic analyses of international migration. In *MigrationTheory: Talking Across Disciplines* (Brettell C. & Hollifield J., eds), Routledge, New York, NY, pp. 51-62.

Thomas P. (2006) The international migration of Indian nurses. *International Nursing Revew* **53**, 277-283.

Thupayagale-Tshweneagae G. (2007) Migration of nurses: is there any other option? *International Nursing Review* **54**, 107-109.

Troy P., Wyness L. & McAuliffe E. (2007) Nurses' experiences of recruitment and migration from developing countries: a phenomenological approach. *Human Resources for Health,* **5** (15). doi: 10.1186/1478-4491-5-15

Tsai J. (2002) Psychometric evaluation of the Demands of Immigration Scale with Taiwanese–Chinese immigrants: a pilot study. *Journal of Advanced Nursing* **39**(3), 274-280.

United Nations. (1948, December 10) *Universal Declaration of Human Rights.* Retrieved from http://www.un.org/en/documents/udhr/ on 18 July 2009.

United Nations Educational, Scientific and Cultural Organization (UNESCO). (2005) *Glossary of Migration.* Retrieved from www.unesco.org/shs/migration/glossary on 18 July 2009.

Walker L. & Avant K. (2005). *Strategies for Theory Construction in Nursing,* Pearson Prentice Hall, Upper Saddle River, NJ.

Winkelmann-Gleed A. (2006) *Migrant Nurses: Motivation, Integration and Contribution,* Radcliffe, Oxford.

Xyrichis A. & Ream E. (2008) Teamwork: a concept analysis. *Journal of Advanced Nursing* **61**(2), 232-241.

CHAPTER THREE

Case Study Methodology in Nurse Migration Research: An Integrative Review

Michelle Freeman, MSN, RN
Doctoral Student, School of Nursing, McMaster University
Lecturer, Faculty of Nursing, University of Windsor

Andrea Baumann, PhD, RN
Associate Vice-President, Global Health, Faculty of Health Sciences
Scientific Director, Nursing Health Services Research Unit (NHSRU), McMaster Site

Anita Fisher, PhD, RN
Associate Professor, School of Nursing & Senior Researcher NHSRU, McMaster University

Jennifer Blythe, PhD
Associate Professor (part-time), School of Nursing & Research Associate NHSRU, McMaster University

Noori Akhtar-Danesh, PhD
Associate Professor of Biostatistics, School of Nursing, McMaster University

This article has been accepted for publication.

Freeman, M., Baumann, A, Blythe, J., Fisher, A., & Akhtar-Danesh, N.(in press). Case Study Methodology in Nurse Migration Research: An Integrative Review. *Applied Nursing Research.*

Abstract:

The migration of nurses combined with a global nursing shortage affects the supply of nurses and access to health services in many countries. The purpose of this paper was to conduct an integrative review of Case Study methodology (CSM) in nurse migration research. Findings identify where studies using CSM have been conducted, by whom and the themes explored. More studies using CSM are required to answer the important "how" and "why" questions related to nurse migration. Nurses should take a leadership role in this research.

Case Study Methodology in Nurse Migration Research: An Integrative Review

Current rates of Registered Nurse (RN) migration are unprecedented (Troy, Wyness, & McAuliffe, 2007). The movement of nurses, compounded with a global shortage, is having a profound effect on the supply of nurses and affecting access to health services in many countries (Aiken, 2007; Khaliq, Broyles, & Mwachofi, 2009; Kingma, 2001; Kingma, 2008).

Although debated in the literature, there has been little primary research on the causes and consequences of nurse migration. Leaders in the field have all identified the critical need for more research (Buchan, 2004a; Buchan, Kingma, & Lorenzo, 2005; Haour-Knipe & Davies, 2008; Kingma, 2006) to guide practice and policy (Haour-Knipe & Davies, 2008; McGillis Hall et al., 2009). Case study methodology (CSM), a qualitative research method, could contribute to the understanding of nurse migration. The purpose of this paper is to conduct an integrative review of the use of CSM in nurse migration research and make recommendations about how it can be more effectively utilized.

Case Study Methodology

CSM, popular in the social sciences, has had a long history in many disciplines (Creswell, 2007) "marked by periods of intense use and periods of disuse" (Tellis, 1997, p. para 8). In the United States it was used extensively by

the University of Chicago, Department of Sociology from early 1900's until 1935 to study immigrants who had moved to Chicago from abroad (Tellis, 1997). CSM, therefore, has a strong historical tradition in the study of migrant populations.

Robert Stake (1995) and Robert Yin (2009) both proposed approaches to CSM based on a constructivist paradigm. From this perspective, meaning is assumed to be subjective and based on one's own experiences but also influenced by interactions with others and historical and cultural norms (Creswell, 2009, p. 8). Cases are studied in the context of people's lives and work, and are based on the participant's perspective (p. 8). "Case study is done in a way that incorporates the views of the 'actors' in the case under study" (Tellis, 1997, p. para 9) rendering it ideal for exploring nurse migration which is both person and context dependent.

Although considered qualitative research, CSM utilizes both qualitative and quantitative research methods (Bryar, 1999). Like all qualitative research methodologies, CSM has been criticized as a "less desirable" strategy lacking systematic procedures, rigour and producing biased results (Yin, 2009, p. 14). However, Yin (2009) considers it as a challenging research approach with a rigorous methodological path. Its major strength is its reliance on multiple data-collection techniques and data sources which increase the validity of findings (Ridenour & Newman, 2008).

Challenges for CSM are the multiple definitions and inconsistent use of the term "case study" in the scientific and professional literature (Zucker, 2001). Case study has been used to describe a teaching tool and/or a form of recording keeping (Yin, 2009). Some consider it a methodology (Creswell, 2007; Yin, 2009), others a choice of what is to be studied (Stake, 2000). The American Psychological Association (2010) differentiates case study articles and methodological articles describing the former as reports of case materials that illustrate a problem, provide solutions to the problem and/or shed light on needed research, clinical applications or theoretical issues (p. 11) but do not require a description of the methodological approach. This integrative review will reveal whether similar confusion about CSM exists in the nurse migration literature.

The findings of CSM can benefit the study of nurse migration. Since it can examine multiple variables and relies on multiple sources of evidence (Yin, 2009), it has the potential to create a holistic description of the complex nature of nurse migration. CSM provides an in-depth description of a particular case (or cases) in context (Bryar, 1999). It allows for the study of individuals, groups, organizational, social, and political experiences (Yin, 2009, p.4). A case can be an individual nurse, a group of nurses in one hospital, region or country. Its strength in answering "how" and "why" research questions (Yin, 2009), allows for the exploration of the how and why of nurse migration.

For the purposes of this integrative review, CSM will be defined as a qualitative approach in which the investigator explores a case or cases through in-depth data collection using multiple data sources of information and reports case description, themes, and/or findings (Creswell, 2007, p. 73).

The Review

Purpose

The purpose of this integrative review was to conduct an analysis of the use of CSM in the study of nurse migration. The following research questions guided the analysis (1) Where have studies using CSM in nurse migration research been conducted and by whom? (2) What was the purpose of the study? What methods were used? What themes were explored in the nurse migration research using CSM?

Design

Whittemore and Knafl's (2005) revised integrative review method guided the analysis. An integrative review is a rigorous, systematic method of literature review described as "research of research" (Whittemore & Knafl, 2005, p. 548). It differs from a critical review in that it is guided by research questions defining both the purpose and scope of the review (Broome, 2000). These questions help the investigator stay focused when managing large amounts of information. Integrative reviews support evidence-based practice by providing a comprehensive understanding of a particular topic. A review of this type must

meet similar standards of methodological rigour to prevent systematic error and bias as primary research (Cooper, 1989; Whittemore & Knafl, 2005). The process includes: problem formulation, a literature search, data evaluation, data analysis and interpretation, and presentation of the findings (Cooper, 1998; Whittemore & Knafl, 2005).

Search Method and Outcomes

A thorough literature search is crucial to conducting a quality review because incomplete or biased searches result in inadequate findings and faulty conclusions (Conn, Isaramalai, Rath, Jantarakupt, Wadhawan, & Dash, 2003; Whittemore, 2005). A comprehensive search of nurse migration research using CSM was undertaken. Keyword searches of literature indexes including Cumulative Index of Nursing and Allied Health Literature (CINAHL), MEDLINE, PubMed, EMBASE, PschINFO, Sociological Abstracts, and Human Resources Abstracts were undertaken. Full and truncated words used singly and/or in combination included: nurse, nurs*, professional, health worker, migration, migrat*, immigration, immigrat*, emigration, emigrat*, qualitative study and case study. No time limits were placed on the search except those imposed by the individual indexes. In addition, web search engines such as Google Scholar, and migration specific web sites with research and resources indexes, such as the International Center for Nurse Migration were searched using key words and/or searched by hand. Journals specializing in health human

resource publications were individually searched. Grey literature was found through web search engines and by hand searching of published work, government reports, and books.

Despite the interest in health worker migration evident in the literature, there is limited primary research on nurse migration. An initial inclusion criterion was nurse as primary author but this resulted in too few studies and was modified to include non nurses. The label "case study", as anticipated, was used liberally. This combined with the lack of description of the research methodology made it a challenge to determine whether the research was a case study or not. Initially, to be included, articles had to be identified as case studies by the author. This criterion also had to be altered to include an important set of "case studies" in a special issue of a health services research journal. Some of these articles used the term case study; others did not. All were included because they were believed essential to addressing the questions in this review. Thirty one case studies on nurse migration published between 1996 and 2009 representing countries and researchers from around the world were identified initially. Each study was read to determine eligibility for inclusion based on the inclusion and exclusion criteria outlined in Table 1. Sixteen studies met inclusion criteria and were accepted for analysis.

Table 1

Inclusion and Exclusion Criteria

Inclusion Criteria	Exclusion Criteria
No restriction by year	Working papers
Nurse migration focusing on Registered Nurses	Dissertations and Thesis
Primary author from any discipline	Chapters in books
Publication in English	Migration of Health workers
Identified as case study by author and/or journal article in special edition	Workshops and conference presentations
Nurse migration described as movement of nurse from one country to another	Migration within countries (urban to rural)
Meets operational definition of case study methodology	"Case study" used to illustrate a case but research method other than CSM identified

Data Evaluation Stage

Strategies for data analysis with integrative reviews have been identified as one of the least developed aspects of the process but require "a thorough and unbiased interpretation of primary sources, along with an innovative synthesis of the evidence…" (Whittemore & Knafl, 2005, p. 550). As recommended, a systematic method for conducting the analysis was identified prior to undertaking the review (Whittemore & Knafl, 2005). Each selected study was read three times, information and themes were tracked and transferred to the data collection

tools. Data were displayed and compared by placing the findings from each study in matrices to allow for systematic comparison.

Results

Where have studies using CSM in nurse migration research been conducted and by whom?

The discipline of the primary author, the country of focus for the research, and whether the study focused on the source country, destination country, or both were tracked (see Table 2).

Table 2

Where have studies using CSM in nurse migration research been conducted and by whom?

Article	Primary Author	Country of Focus	Context: Source, Destination, Both
(Aiken, 2007)	Nurse	U.S.A	destination
(Blouin, 2005)	Political scientist	Canada	source
(Bourgeault & Wrede ,2008)	Behavioural scientist	Canada and Finland	both
(Buchan, 2004b)	Policy scientist	United Kingdom	destination
(Buchan, 2006)	Policy scientist	United Kingdom	destination
(Buchan, 2007)	Policy scientist	United Kingdom	destination

Article	Primary Author	Country of Focus	Context: Source, Destination, Both
(Dovlo, 2007)	Physician	Sub-Saharan Africa (48 countries)	source
(Fang, 2007)	Physician	China	source
(Goode, 2009)	Political scientist	Philippines	source
(Khadria, 2007)	Economist	India	source
(Kober & Van Damme, 2006)	Public health researcher	Swaziland	source
(Little, 2007)	Nurse	Canada	both
(Lorenzo et al., 2007)	Nurse	Philippines	source
(Phillips, 1996)	Sociologist	Trinidad and Tobago	source
(Salmon et al., 2007)	Nurse	Caribbean	source
(Smith & Mackintosh, 2007)	Nurse	United Kingdom	destination

Five studies (31.25%) had a nurse as the primary author. One individual, James Buchan, a policy expert, was the lead author in three studies (18.75%). Two lead authors were physicians (12.5%), two were political scientists (12.5%), and the others were a sociologist, behavioural psychologist, economist, and public health researcher. While this finding illustrated that nurse migration was of interest to other disciplines, it also identified an opportunity for more nurses to

take a leadership role in nurse migration research. Nurses can contribute different perceptions and perspectives in both the design and interpretation of findings. For example Blouin (2005) correctly observed that trade agreements had encouraged Canadian nurses to migrate to the United States (U.S.) but incorrectly concluded that these agreements had not encouraged the same movement of Mexican nurses. In reality, Mexican nurses were not eligible for U. S. licensure requirements because they did not meet educational requirements (Aiken, 2007). This is the reason for the lack of migration, not the trade agreement.

Countries from around the world were the focus of these studies. The United Kingdom (U.K.) was the country of focus in four (25%) of the studies and the Philippines in two (12.5%) as these two countries were found to have originated most primary research on nurse migration reported in the literature. James Buchan, an expert in nurse migration authored three of the studies (18.75 %) focused on the U.K. Canada was the focus of two articles (Blouin, 2005; Little, 2007) and compared with Finland in another (Bourgeault & Wrede, 2008). Other studies focused on the United States, Sub-Saharan Africa, China, India, Swaziland, Trinidad and Tobago, and the Caribbean. These findings indicate that although case studies have been used internationally to explore the experiences and perspectives of different countries related to nurse migration, all countries are not represented by these studies. Are the issues the same in these countries? More studies are needed to answer this question.

The case studies were next examined to determine whether they reflected the perspective of the source country, destination country or both. The source country is defined as the supplier of the nurse migrant; the destination country as the receiver. The views of stakeholders in different countries may vary because as one gains a nursing resource, the other loses. Nine studies (56.25%) reflected the source country perspective, five (31.25%) that of the destination country and two (12.5%) represented both perspectives. There is a need to examine nurse migration from the perspective of stakeholders in both the source and destination countries since the impact of nurse movement would affect both differently.

What was the purpose of the study? What methods were used? What themes have been explored in the nurse migration research using CSM?

To answer these questions, the purpose and methods were summarized and themes were tracked as previously described (see Table 3).

Table 3

What was study's purpose? What methods were used? What themes were explored in the nurse migration research using CSM?

Author/Year	Purpose	*Method*	Themes
(Aiken, 2007)	Examine trends and projections in US nursing workforce and nurse immigration	Data from four data sources (U.S. Department of Homeland Security; National Sample Survey of Registered Nurses; U.S. Population Census; National Council on State Boards of Nursing)	Country specific antecedents (pull factors) and consequences to destination country Description of nurse migrants (origin and destination)
(Blouin, 2005)	Examine impact of trade treaties on Canadian nursing labour market	Data from licensing bodies and historical surveys; interviews with representatives from six nursing organizations and focus groups with 15 participants; policy review	Country specific antecedents (push and pull factors) and consequences
(Bourgeault & Wrede, 2008)	Compare contexts of nurse migration in Canada and Finland and explore social rights of these nurses	Data from licensing bodies, professional organizations, and historical surveys	Country specific antecedents (push and pull factors) and consequences
(Buchan, 2004b)	Explore the international recruitment and migration of nurses to the U.K	Data from previous research by author, international and national workforce data and licensing data	Country specific antecedents (push and pull factors) and consequences
(Buchan, 2006)	Explore trends in nurse migration to the U.K. and career motivations and mobility of these migrants	Data from Nurses and Midwives Council (NMC) and previous survey (N= 380) of international nurse migrants	Country specific antecedents (push and pull factors) and consequences
(Buchan, 2007)	Synthesize information about nurse migration in and out of U.K. and policy implications	Data from two previous surveys by author and registration data	U. K context pull factors
(Dovlo, 2007)	Analyze the impact of nurse migration on sub- Saharan Africa	Data from previously published and unpublished literature and document review	Country specific antecedents (push and pull factors) and consequences

Author/Year	Purpose	*Method*	Themes
(Fang, 2007)	Examine nursing education and potential for future nurse migration from China	Data from previously published findings of studies conducted by Ministries of Health and Education and employment data	Country specific antecedents (push and pull factors) and consequences
(Goode, 2009)	Examine migrant Filipino nurses and their role in supporting economic growth of their country	Findings from previous field work and theoretical literature	Country specific antecedents (push and pull factors) and consequences
(Khadria, 2007)	Examine nursing education and nurse migration in India	Data from World Health Statistics, registration and educational institutions and reports from media	Country specific antecedents (push and pull factors) and consequences
(Kober & Van Damme, 2006)	Describe current crisis in nursing resources in the public sector in Swaziland	Semi-structured interviews with individuals and groups (sample not described) and analysis of primary documents and relevant reports and studies	Country specific antecedents (push and pull factors) and consequences
(Little, 2007)	Synthesize information about nurse migration in and out of Canada and policy implications	Data from multiple data bases and studies and reports from professional organizations, licensing bodies and government	Country specific antecedents (push and pull factors) and consequences
(Lorenzo et al., 2007)	Describe nurse migration patterns in the Philippines, its benefits and costs	Data from previous case study reanalyzed; literature reviews, record reviews, focus groups and interviews conducted (sample not described)	Country specific antecedents (push and pull factors) and consequences
(Phillips, 1996)	Describe the migration of nurses from Trinidad and Tobago	Questionnaire administered to sample of RNs (N= 273) and review of policy documents	Country specific antecedents (push and pull factors) and consequences
(Salmon et al., 2007)	Describe the current state of nurse migration in the Caribbean and plan to manage it	Data from previous studies and reports and ongoing projects	Country specific antecedents (push and pull factors) and consequences; managing migration
(Smith & Mackintosh, 2007)	Analyse role nurse migration plays in creating division and disadvantage within the nursing	Primary and secondary data sources including migration data, current research and literature	Consequences of nurse migration (status of nursing; treatment of nurse migrants)

All the studies had a clear purpose and used multiple methods of data gathering. Yin (2009) identifies that evidence can come from documents, archival records interviews, direct observation, participant-observation and physical artifacts (p. 99). Most studies used documents and archival records in the form of data obtained from previous research, licensing boards, educational institutions, national nursing surveys and population census reports. There is an opportunity to use more primary sources in CSM study designs.

Themes found were consistent with the antecedents and consequences of nurse migration. Antecedents are the political, social, economic, legal, historical and educational forces that influence the motivation to migrate, called the push and pull factors of migration (Kingma, 2006; Kline, 2003; Meija, Pizurki, & Royston, 1979). Pull factors are conditions in the destination country that attract and facilitate the move of nurses to that country; the push factors are conditions that encourage nurses to leave their country. These factors mirror each other; for example, a nurse from a country making a low salary will be pulled to a country offering higher wages (Kingma, 2006, p.19). The consequences are the outcomes of nurse migration. These can be evaluated from the perspectives of the individuals and of other stakeholders (e.g., source country, destination country, health care systems, and nursing profession) and are described as both positive and negative. For example, positive consequences for the individual (e.g., well

paying, secure job) may produce negative consequences for home country (e.g., loss of a scarce nursing resource).

Thirteen (81.25%) articles dealt with country specific antecedents and consequences. Other studies, like the U.S. study (Aiken, 2007), examined only U.S. pull factors, the consequences to destination countries and the nurses who had migrated there; another study examined only U.K. pull factors (Buchan, 2007); and the last analyzed the consequences of nurse migration on the status of nursing and treatment of these migrants in the long term sector in the U.K. (Smith & Mackintosh, 2007).

These findings identify an interest in both why nurse migration takes place and the outcomes of this movement. It also identifies the many different perspectives that can be researched. Although CSM is frequently used to study the individual case in-depth, none of these studies focused on the individual nurse. CSM would offer an ideal approach, for example, to study the individual nurse in the destination country since little is known about the profiles, future career plans and equality of treatment of these nurse migrants (Buchan et al., 2005).

Discussion

Conducting a review of the use of CSM in research on nurse migration presented several challenges. The first challenge was the unclear and inconsistent use of the term “case study” in the titles and abstracts of published works. This confusion occurs in CSM studies in other fields and the nurse

migration literature was no different. As expected, alternative terms for case study such as field work (Goode, 2009; Phillips, 1996) and case method (Smith & Mackintosh, 2007) were found.

Another challenge was that the majority of the publications were published as case study articles and not as methodological articles meaning there was an absence of a description of the methodological approach in the studies. This resulted in the need to constantly ask "Did this study use CSM?" This, however, is not unusual and Yin (2009) provides several interesting insights. He states that case studies have more potential audiences than other types of research and one of the essential tasks in writing the report is to ensure it is designed for the target audience. He supports the lack of inclusion of the research methodology (p. 170) and emphasizes the importance of using the study report as a device to communicate research-based information to nonspecialists (p. 169). This view supports the critical need in health services research for knowledge dissemination and knowledge exchange (Canadian Institute for Health Information, 2009) but the findings of this review also identify a need for the publication of more methodological studies using CSM. These studies would be most useful if they followed a prescribed format although Yin (2009) acknowledges that "case study reports do not have a uniformly acceptable outline" (p. 90). The need for guidelines for the reporting of case studies in journals, however, needs to be considered since "the credibility of research

depends on a critical assessment by others of the strengths and weakness in study design, conduct and analysis" (von Elm et al., 2007, p. 806). The standardization of reporting, although atypical in qualitative research, would also educate more people on good case study protocol. As Yin (2009) warned "…one major lesson is that good case studies are still difficult to do" (p. 16). Without some form of standardized reporting how do we know a "good" case study from a "bad" one?

Another challenge was the data evaluation and analysis stages of the integrative review because it was time intensive and required careful attention to ensure accurate coding, tracking, reduction, and comparison of all the data elements. Some data requirements, such as identifying the background of lead authors required additional internet searches.

How should CSM be used in the study of nurse migration in the future? Kirkevold (1997) warns that a weakness of integrative reviews has been that the authors become preoccupied with methodological flaws at the expense of focusing on the relevance of the research. Each of these publications contributed to a better understanding of nurse migration. Aiken (2007) described nurse migrants in the United States, the most popular destination country. Smith and Mackintosh's U.K. study (2007) illustrated how nurse migrants are treated differently (e.g. lower pay) through their exploration of the working conditions of these nurses in the long term care sector and alerted us to the potential effect this exploitation could have on the nursing profession. Dovlo (2007) outlined the

complex array of internal push factors combined with external pull factors from wealthy countries which has created severe nurse shortages in sub-Saharan Africa. Khadria (2007) traced the growth in the numbers of nurses migrating from India as a result of the massive escalation in the number of recruitment agencies. Kober and Van Damme (2006) described the human health resource crisis in Swaziland resulting from nurse migration combined with the HIV/AIDS epidemic. Little (2007) provided an overview of nurse migration to and from Canada and an analysis of the stakeholders in these processes. Buchan (2004b) warned us that although international recruitment presents a quick fix for countries in dire need of nurses, there is virtually no published research on the adaptation of these nurses to different approaches and philosophies of practice. Each article made clear recommendations based on their findings such as the need for improved global health human resource planning and the crucial need for more research.

Buchan and colleagues (2005) have identified the need for more research, specifically case studies focusing on several under-explored areas of nurse migration to provide evidence of "what works" (p. 23). They recommend it be used: to conduct a more detailed evaluation of factors such as national or international policies which reduce migration and encourage return migration; to examine the content, actual operation and effectiveness of recruitment agreements between countries to manage the flow of nurses since few of these agreements

have been evaluated. These case studies are required to inform important policy research.

Since there is a lack of primary research on nurse migration it would be helpful, as a next step, to conduct a more comprehensive integrative review, focusing on all current studies of nurse migration (e.g., last five years), not just those using CSM. This would contribute to a broader understanding of what has been studied, who has studied it, the research methods used and identify gaps in the literature to direct future research. The inclusion of research from the grey literature, such as working papers, would further strengthen these findings.

Conclusion

CSM is increasingly being used in nursing research to describe, explore, and understand complex issues (Anthony & Jack, 2009). This integrative review was the first to examine the use of CSM in nurse migration. It contributed to our understanding of the strengths of this methodology and reasons for the inconsistent use of the term "case study" in the literature. It identified where studies using CSM in nurse migration have been conducted, by whom and the themes explored. Insights and recommendations have been provided on how case studies can be used to advance our understanding of this topic.

Nurse migration is a growing global phenomenon which has major implications for the nursing profession in every country. Nurses therefore, have a

vested interest in leading research which explores the causes and consequences of this movement. CSM is a promising methodology to guide this exploration.

References

Aiken, L. (2007). U.S. nurse labor market dynamics are key to global nurse sufficiency. *Health Services Research, 42*(3), 1299-1320.doi:10.1111/j.1475-6773.2007.00714x

American Psychological Association. (2010). *Publication manual of the American Psychological Association.* Washington, DC: Author.

Anthony, S., & Jack, S. (2009). Qualitative case study methodology in nursing research: An integrative review. *Journal of Advanced Nursing, 65*(6), 1171-1181.doi: 10.1111/j.1365-2648.2009.04998.x

Blouin, C. (2005). *NAFTA and the mobility of highly skilled workers: The case of Canadian nurses.* Retrieved from The Estey Centre Journal of International Law and Trade Policy http://www.esteycentre.ca/journal/j_pdfs/blouin6-1.pdf

Bourgeault, I., & Wrede, S. (2008). Caring beyond borders: comparing the relationship between work and migration patterns in Canada and Finland. *The Canadian Journal of Public Health, 99* (Supplement 2), S22-26.

Broome, M. (2000). Integrative literature reviews for the development of concepts. In B. Rodgers, & K. Knafl, *Concept development in nursing: Foundations, techniques and applications* (pp. 231-250). Philadelphia: Saunders.

Bryar, R. (1999). An examintaion of case study research. *Nurse Researcher, 7*(2), 61-78.

Buchan, J. (2004a). The migration of nurses: Trends and policies. *Bulletin of the World Health Organization, 82*, 587-594.

Buchan, J. (2004b). International rescue? The dynamics and policy implications of the international recruitment of nurses to the UK. *Journal of Health Service Research Policy, 9* (Supplement 1), 10-16.

Buchan, J., Kingma, M., & Lorenzo, F. (2005). *International migration of nurses: Trends and policy implications.* Geneva: International Council of Nurses.

Buchan, J. (2006). Filipino nurses in the UK: A case study in active international recruitment. *Harvard Health Policy Review, 7*(1), 113-120.

Buchan, J. (2007). International recruitment of nurses: Policy and practice in the United Kingdom. *Health Services Research, 42*(3), 1321-1335. doi:10.1111/j.1475-6773.2007.0071.x

Canadian Institute for Health Information. (2009, May 8). *Knowledge translation: Definition.* Retrieved from http://www.cihr-irsc.gc.ca/e/39033.html

Conn, V., Isaramalai, S.-a., Rath, S., Jantarakupt, P., Wadhawan, R., & Dash, Y. (2003). Beyond Medline for literature searches. *Journal for Nursing Scholarship, 35*(2), 177-182.

Cooper, H. (1989). *Integrating research: A guide for literature reviews.* London: Sage.

Creswell, J. (2007). *Qualitative inquiry & research design: Choosing among five approaches.* London: Sage.

Creswell, J. (2009). *Research design: Qualitative, quantitative, and mixed methods approaches.* London: Sage.

Dovlo, D. (2007). Migration of nurses from Sub-Saharan Africa: A review of issues and challenges. *Health Services Research, 42*(3), 1373-1388. doi:10.1111/j.1475-6773.2007.00712.x

Fang, Z. (2007). Potential of China in global nurse migration. *Health Services Research, 42*(3), 1419-1428. doi:10.1111/j.1475-6773.2007.00717.x

Goode, A. (2009). Global economic changes and the commodification of human capital: Implications of Filipino nurse migration. *East Asia, 26*, 113-131.doi:1007/s12140-009-9074-3.

Haour-Knipe, M., & Davies, A. (2008). *Return migration of nurses.* Geneva: International Centre on Nurse Migration.

Khadria, B. (2007). International nurse recruitment in India. *Health Services Research, 42*(3), 1429-1436. doi:10.1111/j.1475-6773.2007.00718.x

Khaliq, A., Broyles, R., & Mwachofi, A. (2009). Global nurse migration: Its impact on developing countries and prospects for the future. *Nursing Leadership, 22*(1), 24-50.

Kingma, M. (2001). Nursing migration: Global treasure hunt or disaster-in-the-making? *Nursing Inquiry, 8*(4), 205-212.

Kingma, M. (2006). *Nurses on the move: Migration and the global health economy.* London: Cornell University Press.

Kingma, M. (2008, May 31). Nurses on the move: Historical perspective and current issues. *OJIN: The Online Journal of Issues in Nursing, 13*(2) Retrieved from http://www.nursingworld.org/MainMenuCategories/ANAMarketplace/ANAPeriodicals/OJIN/TableofContents/vol132008/No2May08/NursesontheMove.aspx

Kirkevold, M. (1997). Integrative nursing research- An important strategy to further the development of nursing science and nursing practice. *Journal of Advanced Nursing, 25*, 977-984.

Kline, D. (2003). Push and pull factors in international nurse migration. *Journal of Nursing Scholarship, 35*(2), 107-111.

Kober, K., & Van Damme, W. (2006). Public sector nurses in Swaziland: Can the downturn be reversed? *Human Resources for Health, 4*(13). doi:10.1186/1478-4491-4-13

Little, L. (2007). Nurse migration: A Canadian case study. *Health Services Research, 42*(3), 1336 - 1353. doi:10.1111/j.1475-6773.2007.00709.x

Lorenzo, F., Galvez-Tan, Jaimie, Icamina, K., & Javier, L. (2007). Nurse migration from a source country perspective: Philippine country case study. *Health Services Research , 42* (3), 1406-1418. doi:10.1111/j.1475-6773.2007.00716.x

McGillis Hall, L., Pink, G., Jones, C., Leatt, P., Gates, M., Pink, L.,…Seto, L. (2009). Gone south: Why Canadian nurses migrate to the United States? *Healthcare Policy, 4* (4), 91-106.

Meija, A., Pizurki, H., & Royston, E. (1979). *Physician and nurse migration: Analysis and policy implications.* Geneva: World Health Organization.

Phillips, D. (1996). The internationalization of labour: The migration of nurses from Trinidad and Tobago (A case study). *International Sociology, 11*(1), 109-127.

Salmon, M., Yan, J., Hewitt, H., & Guisinger, V. (2007). Managed migration: The Caribbean approach to addressing nursing services capacity. *Health*

Services Research, 42(3), 1354-1372. doi:10.1111/j.1475-6773.2007.00708.x

Smith, P., & Mackintosh, M. (2007). Profession, market and class: Nurse migration and the remaking of division and disadvantage. *Journal of Clinical Nursing, 46,* 2213-2220. doi:10.1111/j.1365-2702.01984.x

Stake, R. (1995). *The art of case study research.* Thousand Oaks: Sage.

Stake, R. (2000). Case studies. In N. Denzin, & Y. Lincoln (Eds.), *Handbook of qualitative research* (pp. 407-454). London: Sage.

Tellis, W. (1997). Introduction to case study. *The Qualitative Report, 3*(2). Retrieved from http://www.nova.edu/ssss/QR/QR3-2/tellis1.html.

Troy, P., Wyness, L., & McAuliffe, E. (2007). Nurses' experiences of recruitment and migration from developing countries: A phenomenological approach. *Human Resources for Health, 5*(15). doi: 10.1186/1478-4491-5-15

von Elm, E., Egger, M., Altman, D., Pocock, S., Getzsche, P., & Vandenbroucke, J. (2007). Strengthening the reporting of observational studies in epidemiology (STROBE): Guidelines for reporting observational studies. *British Medical Journal, 335,* 806-808.

Whittemore, R. (2005). Combining evidence in nursing research: Methods and implications. *Nursing Research, 54*(1), 56-62.

Whittemore, R., & Knafl, K. (2005). The integrative review: Updated methodology. *Journal of Advanced Nursing, 52*(5), 546-553.

Yin, R. (2009). *Case study research design and methods.* London: Sage.

Zucker, D. (2001). Using case study methodology in nursing research. *The Qualitative Report* Retrieved from http://www.nova.edu/ssss/QR/QR6-2/zucker.html

CHAPTER FOUR

Workforce Integration of New Nurses: Employment Goals, Expectations, and Migration Intentions of Nursing Graduates in a Canadian Border City

Michelle Freeman, MSN, RN
Doctoral Student, School of Nursing, McMaster University
Lecturer, Faculty of Nursing, University of Windsor

Andrea Baumann, PhD, RN
Associate Vice-President, Global Health, Faculty of Health Sciences
Scientific Director, Nursing Health Services Research Unit (NHSRU), McMaster Site

Noori Akhtar-Danesh, PhD
Associate Professor of Biostatistics, School of Nursing, McMaster University

Jennifer Blythe, PhD
Associate Professor (part-time), School of Nursing & Research Associate NHSRU, McMaster University

Anita Fisher, PhD, RN
Associate Professor, School of Nursing & Senior Researcher NHSRU, McMaster University

Submitted January 23, 2012 to *Journal of International Nursing Studies*

Abstract

Background: Internationally, nurse migration in border cities has received little attention. Nurses who graduate from nursing programs in Canadian border communities have the option of working in Canada or the United States. They are able to cross the international border each day as commuter migrants returning to their home country after work. Despite recent investment by Canada to increase the number of nursing students, the migration intentions of graduating nurses and the factors influencing their decision making has not been explored. The loss of Canadian RNs is a significant problem because of a predicted nursing shortage in Canada.

Objectives: The objective of this study is to explore the migration intentions of a graduating class of baccalaureate nursing students in a Canadian border community and the factors influencing their decision making.

Methods: An explanatory sequential mixed methods design was used. In the first quantitative phase, data was collected by a web-based self-report survey. In the qualitative phase, semi-structured interviews were conducted. Data collection took place between February and July 2011.

Results: Eighty six percent of graduates preferred to work in Canada although two thirds identified that they were considering migrating for work outside of Canada. Knowing a nurse who worked in the US (Michigan) influenced the intention to migrate and living in a border community was a strong predictor of migration. Migrants had significantly higher expectations that their economic, professional development, healthy work environment, adventure and autonomy values would be met in another country rather than Canada. Evidence from the interviews revealed that clinical instructors and clinical experiences played a significant role in framing students' perceptions of the work environment, influencing their choice of specialty, and where they secured their first job.

Conclusion: The value-expectancy framework offered a novel approach for identifying job factors that were driving migration intentions. The study offered a snapshot of the graduates' perception of the work environment before entering the workforce. The graduates doubted that their future work environment would meet many of their job expectations, a troubling finding requiring further investigation. Expectations influenced their migration intentions and may foreshadow how well they would be integrated and retained in the workforce.

Summary Statement

What is already known about the topic?

There is a shortage of Registered Nurses and almost every country in the world predicts needing more nurses than they will produce or retain.

A lack of health human resource planning in developed countries has resulted in a growing dependence on nurse migrants to address their nursing shortages.

What this paper adds?

This study adds to the international literature by identifying factors influencing the migration of new graduates and focusing on commuter migrants in a Canadian border city.

The value-expectancy framework offered a novel approach for identifying job factors that were driving migration intentions in nurse graduates.

This research provides further evidence that clinical instructors and clinical experiences play a significant role in framing perceptions of the work environment of new graduates.

Key words: border city; commuter; graduates; mixed methods; nurse migration; value-expectancy; workforce integration

Workforce Integration of New Nurses: Employment Goals, Expectations, and Migration Intentions of Nursing Graduates in a Canadian Border City

1. Background

Migration has had a long tradition in the nursing profession beginning with Florence Nightingale but the current trends and effects of nurse migration have changed greatly from what was observed in the past (Habermann and Stagge, 2010). Globally, there is a shortage of Registered Nurses (RN) and almost every country in the world predicts needing more nurses than they will produce or retain (Aiken et al., 2004; Buchan and Calman, 2004; Kline, 2003). As a result of underinvestment in nursing, developed countries have a growing dependence on nurse migrants to address their nursing shortages (Aiken et al., 2004; Brush, 2008). This shortage is occurring at a time when the role of nurses has been acknowledged as critical in maintaining the health of countries (Buchan, 2006). Meanwhile, the role of RNs is assuming greater importance as health care delivery systems are redesigned to meet the health care needs of growing and ageing populations (Institute of Medicine, 2010; Oulton, 2006).

Despite these developments, the migration of Canadian nurses has received little attention. In the 1990s, hospital restructuring and downsizing resulted in approximately 27,000 nurses migrating to the United States (US) in search of jobs (Baumann & Blythe, 2003; Industry Canada, 1999). In 1996/97 the total outflow of nurses to the US was equivalent to about a quarter of the

3,000 new Canadian graduates (Zhao, Drew, & Murray, 2000). According to McGillis Hall and colleagues (2009) "little or no attempt has been made to determine why nurses leave Canada, remain outside Canada, or under what circumstances might return to Canada" (p. 198). The loss of Canadian RNs is a significant problem because of the predicted nursing shortage in Canada of almost 60,000 full time equivalents (FTEs) by 2022 (Tomblin Murphy et al., 2009). Canada already had fewer RNs in 2009 relative to the size of the population than there were 20 years ago, with 824 RNs per 100,000 in 1992 compared to 789 per 100,000 in 2009 (Canadian Institute for Health Information, 2010). Despite recent investment by Canada to increase the number of nursing students (Baumann et al., 2006), the migration intentions of these recently graduated nurses and the factors influencing their decision making has not been explored. The increase in supply will not decrease shortages in Canada if large numbers migrate to the US and elsewhere. A review of the literature found only one study on the intent of nursing students to migrate from Uganda (Nguyen et al., 2008) and no studies on the intent of Canadian nursing students' to migrate.

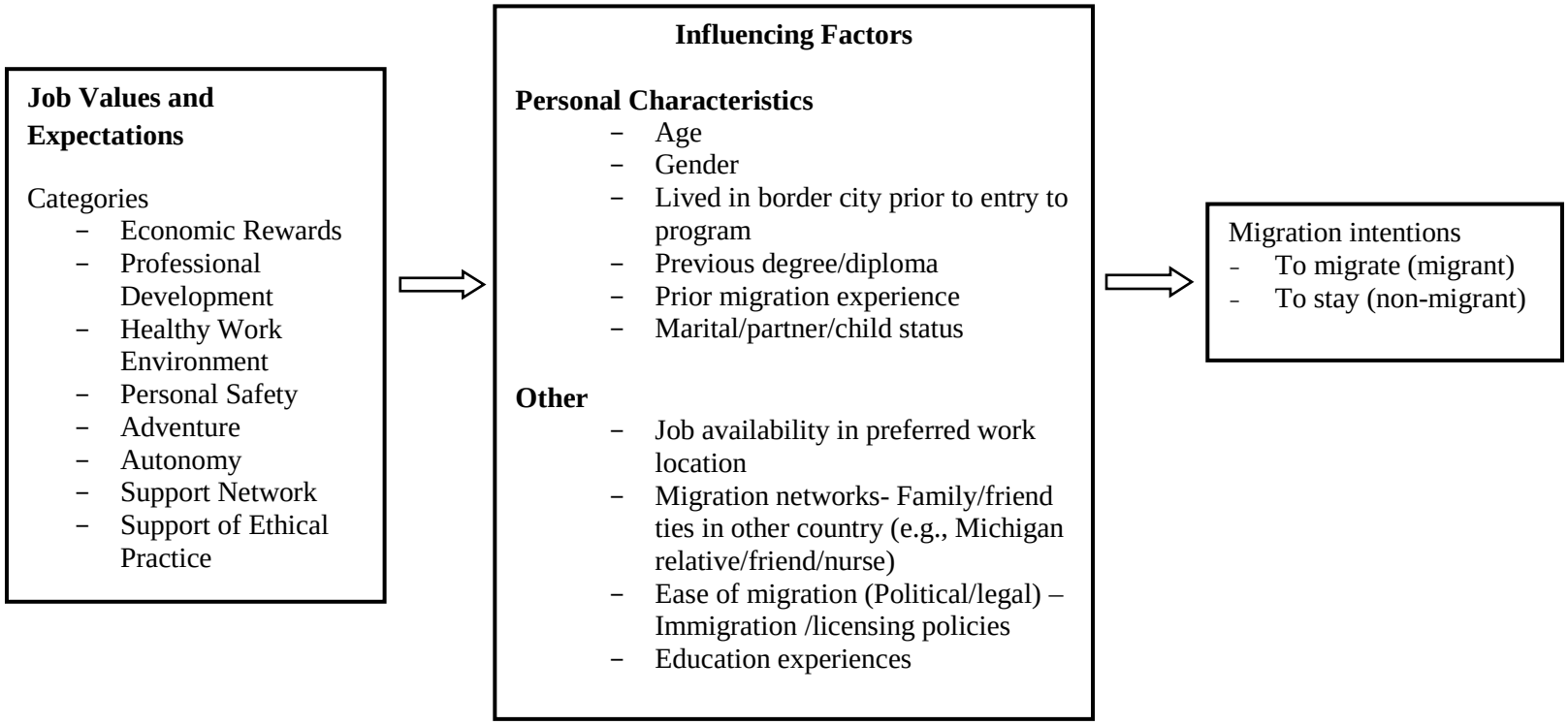
Nurses who leave Canada in search of full time employment represent a brain drain for the health care system. Migration signifies a loss of tax dollars used to educate nurses in Canada. It subsidizes nurse education abroad (Pink et al., 2004) and intensifies the pressure on educational institutions to prepare sufficient nurses to meet Canadian demands (Hancock, 2008).

Student nurses who attend university nursing programs in communities along the US Canada border have the option of working in Canada or the US. They have access to jobs in large American health care systems. They are able to cross the international border each day as daily commuter migrants returning to their home country after work. Although these nurses contribute significantly to the Canadian economy, they represent the loss of valuable nursing human resources to Canada.

The purpose of this paper is to report on a study exploring the migration intentions of a class of baccalaureate nursing students graduating in June 2011 in a Canadian border community and their intent to migrate from Canada for their first nursing job. The value-expectancy (V-E) framework (De Jong and Fawcett, 1981) guided the study and other factors influencing migration intentions were examined (see Figure 1). The research questions were (1) What are the migration intentions of these graduates? (2) What factors (values, expectations, personal characteristics and other) can potentially influence their migration intentions? (3) Does the V-E framework contribute to our understanding of these factors?

Figure 1

Antecedents of Nurse Migration: Proposed Factors Influencing Migration Intentions of New Graduates in a Border Community



1.1. Value-Expectancy Framework

Migration theories have been evolving for many years. They focus on various levels of analysis: micro levels concentrate on individual migration decisions, macro-levels on aggregate explanations, and the meso-level is situated between these two and examines household and community level influences on migration (Hagen-Zanker, 2008). Although these theories are useful in explaining migration ex post facto (after the fact) their ability to forecast or explain potential migration has been criticized as being very limited (Bijak, 2006).

Theories of migration rarely inform research on nurse migration. The most commonly applied is the push pull theory (Bach, 2007; Kingma, 2006a; Kline, 2003; Meija, Pizurki and Royston, 1979). This framework offers explanations of why nurses migrate (antecedents) but does not explain the individual's decision making. The framework has also been criticized for its inability to explain why people decide not to migrate (Arango, 2000; De Jong and Fawcett, 1981). These suggest the need to further explore the factors that influence nurses' decisions to stay or migrate.

De Jong and Fawcett (1981) state that to understand migration, the individual's perspective must be understood including how the decision to migrate is made by weighing goals/values against the expectation of meeting these goals. They developed the V-E model of migration based on the theory of

planned behavior (Ajzen, 1988). "The model assumes migration is purposive behaviour, that is, that the potential migrant makes a conscious decision to migrate or not to migrate through a process by which perceived consequences are weighed and evaluated" (De Jong and Fawcett, 1981, p. 57).

The advantage of this model for migration research is that expectancies for alternative locations can be measured. The basic components of the V-E model are values (goals) and expectancies (subjective probabilities). It is represented algebraically as: MI= Σ VE, where V is the value of the outcome; E is the expectancy that migration will lead to the desired outcome; MI represents the strengths of the intention to migrate and is the sum (Σ) of the value multiplied by the expectancy (p. 47). Higher scores indicate an increased probability of the individual moving to that location.

To operationalize the V-E model for migration the empirical and theoretical migration literature was searched for values common to this population which were then organized into seven conceptual categories (De Jong and Fawcett, 1981). The conceptual categories included (a) wealth, (b) status, (c) comfort, (d) stimulation, (e) autonomy, (f) affiliation, and (g) morality. Each category was defined and potential conceptual indicators were outlined. The model requires that a measure of the importance for each value be obtained. A corresponding expectancy is then obtained for alternative locations. Expectancy is defined as the subjective probability that the behaviour, in this case migrating to

a certain location, will lead to the valued outcome in that location (De Jong and Fawcett, 1981).

De Jong (2000) identified other factors in the framework that are relevant to migration decision-making including perceived family migration norms, gender roles, residential satisfactions, migrant networks and direct behavioural constraints and facilitators (e.g., immigration policies and prior migration experience). These factors modified the influence that values and expectations had on the decision to migrate.

Although the V-E model has been used to study migration decision-making in specific geographical locations (De Jong et al., 1983; De Jong et al., 1986; De Jong and Richter, 1996; De Jong and Steinmetz, 2005), it has not been used to study nurse migration. The framework, adapted to study this population, is described in the next section.

2. Design and methods

For the purpose of this study, a migrant was defined as a graduate who is considering working in nursing in another country. The migrant may move from Canada (e.g., North Carolina or Australia) or live in Canada but commute (commuter migrant) for work across an international border (e.g., Windsor and Detroit border). Non-migrants were defined as graduates who were only considering working in Canada.

An explanatory sequential mixed methods design was used (Creswell and Plano Clark, 2011). In keeping with this approach, sequential data analysis was completed with the findings of both phases integrated in the discussion (Creswell and Plano Clark, 2011).

In the first quantitative phase of the study, data was collected by a web-based self-report survey. In the qualitative phase, semi-structured interviews were conducted to address findings arising from the survey.

2.1. Quantitative phase: Survey development

In the first stage, survey categories were created based on the V-E framework (De Jong and Fawcett, 1981) but developed for a nursing population. The adaptation of the categories to the country (Canada) and context (nurse graduates) was supported by an expert in the use of the V-E framework (G.F. De Jong, personal communication, September 7, 2010). The nurse migration literature was searched to obtain categories which reflected why nurses migrate. A recently completed concept analysis on nurse migration (Freeman et al., 2011) guided this task. A literature search was conducted to determine job factors deemed important to nurses; consultations were also undertaken with experienced researchers and faculty members who had experience either in survey development, had worked as nurse migrants, and/or taught this senior student group.

Figure 2

Categories of Job Values for Nurse Graduates: Definitions and Focus of Survey Questions

Economic Rewards (contributes to individual wealth)
- Full time
- Salary
- Benefits

Professional Development (contributes to professional growth)
- Increase nursing competencies and improve ability to compete for future nursing jobs
- Supports continuing education

Healthy Work Environment (reflect good working conditions for nurses)
- Supports the health, safety, and well-being of nurse
- Supports provision of quality patient care
- Provides appropriate staffing levels for the type of patients and their acuity level
- Has visible nurse leaders who advocate for nurses and nursing practice
- Has strong nursing leadership demonstrated by an environment of open communication and trust, and where contributions valued
- Offers good working relationship with nurse manager
- Orientation of sufficient length to help transition to independent practice
- Offers scheduling that supports work life balance

Personal Safety (living and working environments that support personal safety)
- Job located in a safe area
- Job allows living in a safe area
- Zero tolerance for workplace violence

Opportunities for Adventure (allows exploration of unfamiliar places to live/work)
- Adventure- live in a new place
- Adventure-work in an unfamiliar health setting

Autonomy in Choice of Workplace (freedom to work in preferred job)
- Preferred job sector
- Preferred specialty

Support Network (reflects important social linkages)
- Live close to family
- Live close to friends

Support of Ethical Practice (being able to practice in an ethical manner)
- Allows questioning unsafe/unethical practices
- Supports error reporting
- Supports speaking up when patient is at risk of harm

Eight job factor categories were identified. These included (a) economic rewards (b) professional development (c) healthy work environment (d) safe living and working environment (e) opportunity for adventure (f) autonomy in choice of workplace (g) social support and (h) support of ethical practice. Specific job factors and questions appropriate for new graduates were generated for each category from the nursing literature and through consultation with experts (see Figure 2). Questions were framed as statements that asked about the importance (value) of a job factor to the individual, for example, "How important is getting a full time job in nursing after you graduate?" Careful attention was paid to the survey methodology including the use of clear unbiased language, asking one question at a time, limiting questions to those focused on meeting the goals of the research, and following guidelines on the ordering of question (Dillman, Smyth, and Christian, 2009; Schwarz, 1999; Streiner and Norman, 2008).

Value scores were measured using a 5-point Likert scale ranging from 1 (*very unimportant*) to 5 (*very important*). Expectation scores were measured on a 5- point Likert scale ranging from 1(*Not confident at all*) to 5 (*Extremely confident. I am about 100% certain*). After review of the pros and cons of a "do not know" option (Streiner and Norman, 2008), it was decided it would not be included. Although there was the risk of no responses, this risk was considered

minimal; there was more of a risk that participants would choose the "do not know" as an easy option.

The self-report web-based survey was comprised of four sections. Section one which was completed by all respondents included questions related to work location. Then, participants were directed to either section two (for migrants) or three (for non-migrants) to answer questions regarding job values and expectations depending on their migration intentions identified in section one. Next all were asked to answer section four for their demographic and work place preferences. The data collected included a demographic profile, migration intentions for nursing employment, rating of the importance of 25 job values, and expectation (confidence) of achieving them. In addition, personal characteristics which have been shown to influence migration such as age, partner and children status, and a previous history of migration (Buchan and Sochalski, 2004; De Jong, 2000; Kingma, 2006a) were obtained as well as information about job preferences, such as preferred number of work hours, the preferred job sector, and preferred specialty. Validity of the survey was examined using face and content validity analyses (Waltz, Strickland and Lenz, 2005).

Face validity was conducted in three steps. First, ten graduate nursing students were asked to judge the flow, clarity of language and concepts, and missing items. This resulted in the addition of information to improve the clarity of the job factor categories and questions. Second, the research team conducted

the next phase of validity testing; questions were simplified to include only one concept and questions added to explore each category more fully. In the final stage, the researcher observed two recent graduates as they completed the survey. They were asked to comment on anything that was unclear to them; minor modifications in wording were made. The final survey was tested by the researcher and five individuals for functionality and to ensure accurate data capture.

The content validity testing of the questions in each category was performed by two experts. They were asked to determine whether items represented the categories of interest, specifically the job factors that new RNs value as they plan for their first job. They rated each question on a four-point Likert scale ranging from 1 (not relevant to the category) to 4 (strongly relevant to the category). The content validity index (CVI) was calculated using the method highlighted in Waltz et al (2005, p. 155), yielding a CVI of 0.96. This indicated high inter-rater agreement that the questions adequately represented each job category. Wording was modified based on feedback; one question was eliminated because it was too vague.

The survey was delivered through a web-based application and accessed through a URL using a password. Data was saved in an excel spreadsheet eliminating the need for data entry. Participants were asked to create a unique identifying code to allow the matching of this survey with any future follow-up studies.

2.2. Qualitative phase: Interviews

Semi-structured interviews were conducted to explore factors arising from the survey. All interviews were digitally recorded and hand written notes were taken by the researcher and a scribe. Participants were asked the following standardized open-ended questions. What are your plans for your first job in nursing after you graduate? Can you explain your decision making in arriving at these plans? What were the influencing factors? What five job factors were most important in influencing your decision? Do you have any other insights?

2.3. Ethical considerations

The study was approved by the Research Ethics Boards (REBs) at both the home university of the researcher and the university where the study was conducted (see Appendix C and Appendix D). Prior to accessing the survey, the participant reviewed the informed consent and clicked "I consent to participate". Interview participants gave written informed consent.

2.4. Sample

2.41. Survey respondents

Survey participants were recruited from a class of baccalaureate nursing students (N= 281) graduating from a university in a Canadian border community in June 2011. Nonprobability convenience sampling was used. The class was composed of 84.7% (n = 238) females and 15.3% (n= 43) males.

The survey was announced through email and by flyers displayed in public areas at the university. To increase response rate, a three-contact email strategy with two mailed reminders at weekly intervals was used (Dillman, Smyth and Christian, 2009). Dillman et al (2007) support using other forms of contact than just email because of the risk that the email might not reach the individual. Participants were offered the opportunity to register for a draw, as an incentive, after survey completion. Data collection took place between February and April 2011.

2.42. Interview participants

Non-probability convenience sampling was used to recruit for the semi-structured interviews. Participants provided email contact information if they were interested in being interviewed resulting in 37 (32.2%) volunteers. An email invitation and one email reminder was sent to these volunteers and gift card incentives were offered. Interviews conducted in person or by telephone, were digitally audio recorded and lasted approximately 20 minutes. An assistant observed all interviews and acted as a scribe. Data collection took place in June and July 2011.

3. Data Analysis

3.1. Quantitative analysis

Quantitative analysis was performed using IBM® SPSS® Statistics 19 (Somers, NY). Prior to data analysis, the data was explored for accuracy of entries, missing data, and statistical assumptions such as normal distribution and outlier data points (El-Masri and Fox-Wasylyshyn, 2005; Field, 2005; Hazard Munro, 2005). Descriptive statistics were used to describe the sample characteristics and the value and expectations mean scores. Ordinal variables (Likert-scales) were treated as continuous variables for analysis and parametric tests were used because of the sufficient sample size (Tabachnick and Fidell, 2007). The Chi-square test of independence was used to explore differences in the characteristics of migrants and non-migrants. Values and expectations were analyzed by category rather than individual job factors for clarity and parsimony in reporting. Independent t- tests were conducted to determine if there was a difference in the values between migrants and non-migrants and differences in their expectations of working in Canada. For the migrant group, a paired samples t-test was used to explore differences between their job expectations for Canada and job expectations for another country. Predictors of migration intentions were explored by calculating migration intention scores and by performing logistic regression.

3.2. Qualitative analysis

Each interview was transcribed verbatim. Dependability of the interview phase was enhanced by the use of an interview guide with standardized questions that was adhered to with each participant (Waltz, Strickland and Lenz, 2005), integrating content that was consistent with the survey, and by independent analysis of the data by two individuals (Creswell and Plano Clark, 2011) who agreed with the interpretation and analysis of themes. Directed qualitative content analysis was used for the interpretation of the content of text data through a systematic process of coding and identifying themes in the interview data (Hsieh and Shannon, 2005, p. 1278). The analysis involved organizing and preparing the data for analysis and reading through all the data (Creswell, 2009). Data reduction, data display and interpretation of data was completed; each interview was analyzed immediately for themes and subsequent interviews were analyzed and compared to the previous findings until thematic saturation occurred (Miles and Huberman, 1994). Analysis was completed using a word processing program that allowed for highlighting and tracking of themes (Bazeley, 2010; Pope, Ziebland and Mays, 2000). Data and direct quotes were cut and pasted into tables allowing patterns to be identified across responses and permitted the systematic viewing of the whole data set to answer the research questions (Miles and Huberman, 1994). Data was organized under plans for first job, factors influencing decision making, and job factors identified as most important.

4. Results

4.1. Quantitative findings

4.11. Survey response

The response rate to the survey was 40.9% (*n* = 115). The majority of the survey was completed (*n* = 107) in its entirety with few missing responses. Eight (7.0%) surveys were only partially completed. These cases were not deleted to preserve the sample size and allowed completed responses to be included in the analysis. Missing responses were excluded from the analysis accounting for differences in the reported number of participants' responses.

4.12. Survey sample characteristics

Sample characteristics are displayed in Table 1. Two thirds (66.4%) of the participants were 24 years of age or less (*Mean* = 25.7; *SD* =5.5; *median* 23; *range* 21 - 53) and females composed 80.4% (*n*= 86) of the sample. The majority were single (72%; *n* = 77) and had no children (84.1%; *n* = 90). Only 15% (*n* = 16) reported having a previous degree or diploma. This geographic area is known for a high immigrant population (Windsor Essex County Health Unit, 2009) and 21.5% (*n* = 23) identified that they were not born in Canada. Almost 61% knew a nurse (*n* = 65) or had a family member or friend (66.4%; *n* = 71) who worked in Michigan. Chi-square test for independence indicated a statistically significant association between intent to migrate and living in a border city prior to program entry (*p* = .02) and intent to migrate and knowing a nurse in Michigan (*p* = .01).

The majority of graduates preferred full time work (77.6%; *n* = 83) and to work in Canada (86%; *n* = 98) although two thirds (66.1%; *n* = 76) identified that they were considering migrating for work outside of Canada. Approximately 20% identified that they already were planning to leave Canada for work with 15.9% (*n* = 18) planning to work as commuter migrants (e.g., in Michigan) and 3.5% (*n* = 4) wanting to work in another US city or country. A third (32.7%; *n* = 37) identified plans to migrate to other communities in Canada (internal migration). Most identified their preferred job sector as acute care hospitals (70.1%; *n* = 75). Preferred specialties included adult medical surgical areas (24.8%; *n* = 26), obstetrics (16.2%; *n* = 17), emergency departments (15.2%; *n* = 16) and critical care areas (13.4%; *n* = 14). Most graduates were from a border city community (85.8%; *n* = 91).

Table 1

Sample Characteristics

Variable	Non- migrants *N* (%) 39 (33.9)	Migrants *N* (%) 76 (66.1)	*N* (%)	X^2	*P*
Age					
24 years or less	25 (23.4)	46 (43)	71 (66.4)	.23	.63
25 years +	11 (10.3)	25 (23.4)	36 (33.6)		
Gender					
Females	32 (29.9)	54 (50.5)	86 (80.4)	2.49	.11
Males	4 (3.7)	17 (15.9)	21 (19.6)		
Single/Partnered Status					
Single	26 (24.3)	51 (47.7)	77 (72)	.00	.97
Partnered	10 (9.3)	20 (18.7)	30 (28)		
Children Status					
No children	32 (29.9)	58 (54.2)	90 (84.1)	.93	.34
Child/children	4 (3.7)	13 (12.1)	17 (15.9)		

Variable	Non- migrants *N* (%) 39 (33.9)	Migrants *N* (%) 76 (66.1)	*N* (%)	X^2	*P*
Born in Canada					
Yes	30 (28)	54 (50.5)	84 (78.5)	.75	.39
No	6 (5.6)	17 (15.9)	23 (21.5)		
Lived in Border Community Prior to Program Entry					
Yes	27 (25.5)	64 (60.4)	91 (85.5)	5.3	.02*
No	9 (8.5)	6 (5.7)	15 (14.2)		
Preferred Work Hours					
Full time	30 (28)	53 (49.5)	83 (77.6)	1.0	.31
Other-PT, casual, other	6 (5.6)	18 (16.8)	24 (22.4)		
Know Nurse in Michigan					
Yes	16 (15)	49 (45.8)	65 (60.7)	6.0	.01*
No	20 (18.7)	22 (20.6)	42 (39.3)		
Family/relative works in Michigan					
Yes	20 (18.7)	51 (47.7)	71 (66.4)	3.7	.15
No	16 (15)	19 (17.8)	35 (32.7)		
Previous Degree/Diploma					
Yes	3 (2.8)	13 (12.1)	16 (15)	1.87	.17
No	33 (30.8)	58 (54.2)	91 (85)		
Prefer Work in Canada or other country					
Canada	38 (33.3)	60 (52.6)	98 (86)	9.31	.002*
Other country	0	16 (14)	16 (14)		
Current Plans for Location					
Local communities	15 (13.0)	34 (29.6)	49 (42.6)	NC	NC
Michigan (commuter)	3 (2.6)	15 (13.0)	18 (15.7)		
Canada (another city)	18(15.9)	19 (16.5)	37 (32.2)		
Other U.S. city/ country	0	4 (3.5)	4 (3.5)		
No plans	3 (2.6)	2 (1.7)	5 (4.3)		
Preferred Job Sector					
Acute – Hospital	22 (20.5)	53 (49.5)	75 (70.1)	NC	NC
Mental Health Hospital	1 (.9)	3 (2.8)	4 (3.7)		
Rehabilitation	4 (3.7)	1 (.9)	5 (4.7)		
Community Health Centre	4 (3.7)	4 (3.7)	8 (7.5)		
Public Health	5 (4.7)	8 (7.5)	13 (12.1)		
Hospice	0	1 (.9)	1 (.9)		
Other agencies	0	1 (.9)	1 (.9)		
Preferred Specialty					
Adult Med Surgical	10 (9.5)	16 (15.2)	26 (24.8)	NC	NC
Coronary/Intensive Care	3 (2.9)	11 (10.5)	14 (13.4)		
Community agency	5 (4.8)	4 (3.8)	9 (8.6)		
Emergency Dept	5 (4.8)	11 (10.5)	16 (15.2)		
Geriatrics	1 (1.0)	1 (1.0)	2 (1.9)		
Homecare	1 (1.0)	0	1 (1.0)		
Mental Health	0	2 (1.9)	2 (1.9)		

Variable	Non- migrants *N* (%) 39 (33.9)	Migrants *N* (%) 76 (66.1)	*N* (%)	X^2	*P*
Paediatrics	3 (2.9)	6 (5.7)	9 (8.6)		
Obstetrics	4 (3.8)	13 (12.4)	17 (16.2)		
Operating Room	2 (1.9)	1 (1.0)	3 (2.9)		
Palliative/Hospice	0	1 (1.0)	1 (1.0)		
Other	1 (1.0)	4 (3.8)	5 (4.8)		

Note. X^2 Chi square for independence; NC = not calculated; *p** significant two tailed *p* value at an α of .05

4.13. Values and expectations

With the exception of healthy work environment, both migrants and non-migrants had similar mean scores with regard to job related values (see Table 2); non-migrants valued a healthy work environment significantly more than migrants ($t = 3.91$; $p < .001$). Both groups lacked confidence that their job values would be met in Canada. For example, mean values identified that both migrants (*Mean* = 3.02; *SD* =.78) and non-migrants (*Mean* = 3.11; *SD* =.67) were only 50% confident that their first job would have a healthy work environment. Migrants' indicated significantly lower expectations that their job values would be met working in Canada for economic rewards ($t = 2.04$; $p = .04$), professional development ($t = 2.37$; $p = 02$), and autonomy ($t = 2.55$; $p = .01$).

For the migrant group, expectations of jobs in Canada and in another country were compared (see Table 3). Migrants had significantly higher expectations that their economic ($t = -5.27$; $p < .001$), professional development ($t = -3.91$; $p < .001$), healthy work environment ($t = -4.80$; $p < .001$), adventure ($t = -4.62$; $p < .001$) and autonomy ($t = -7.31$; $p < .001$) values would be met in another country rather than Canada. They had significantly higher expectations that their

personal safety ($t = 7.39$; $p < .001$) values would be met in Canada rather than another country.

Table 2

Migrants and Non-migrants: Independent Sample t-test Comparisons of Values and Expectations for First Job in Canada

		Values			Expectations Canada	
Variable	*n*	*Mean (SD)*	*t(df)*	*p value*	*Mean (SD)*	*t(df)*	*p value*
Economic reward			1.08(109)	.28		2.04(109)	.04*
Migrants	74	3.91 (.92)			2.66 (.81)		
Non-migrants	37	4.07 (.57)			2.98 (.72)		
Professional Development			.97*(109)*	.33		2.37*(109)*	.02*
Migrants	74	4.20 (1.15)			3.22 (.87)		
Non-migrants	37	4.35 (.54)			3.57 (.66)		
Healthy Work Environment			3.91*(109)*	<.001*		.61*(109)*	.54
Migrants	74	4.29 (1.01)			3.02 (.78)		
Non-migrants	37	4.77 (.22)			3.11 (.67)		
Personal Safety			.70*(106)*	.49		-.41*(106)*	.68
Migrants	71	4.43 (.69)			3.67 (.70)		
Non-migrants	37	4.51 (.41)			3.61 (.63)		
Adventure			-.50*(105)*	.62		-.19*(105)*	.85
Migrants	71	3.36 (.96)			2.77 (.94)		
Non-migrants	36	3.28 (.69)			2.74(1.03)		
Autonomy			-1.30*(105)*	.20		2.55*(105)*	.01*
Migrants	71	4.30 (.78)			2.35(1.05)		
Non-migrants	36	4.10 (.68)			2.86 (.81)		
Support Network			-.41*(105)*	.68		.39*(105)*	.70
Migrants	71	3.87 (.92)			2.80(1.15)		
Non-migrants	36	3.79 (.82)			2.89 (.96)		
Support of Ethical Practice			.82*(105)*	.41		-.12*(105)*	.90
Migrants	71	4.68 (.60)			3.53 (.82)		
Non-migrants	36	4.76 (.34)			3.51 (.93)		

Note. *n* = number of responses; SD = Standard Deviation; *df* = degrees of freedom; *p** significant two tailed *p* value at an α of .05

Table 3

Migrants: Paired Sample t-test Comparison of Expectations for First Job in Canada and Another Country

Variable	*n*	Expectations *Mean (SD)*		*t(df)*	*p-value*
		Canada	Another Country		
Economic reward	74	2.66 (.81)	3.23 (.86)	-5.27*(73)*	<0.001*
Professional Development	74	3.22 (.87)	3.65 (.79)	-3.91*(73)*	<0.001*
Healthy Work Environment	74	3.02 (.78)	3.42 (.68)	-4.80*(73)*	<0.001*
Personal Safety	71	3.67 (.70)	3.09 (.68)	7.39*(70)*	<0.001*
Adventure	71	2.77 (.94)	3.22 (.98)	-4.62*(70)*	<0.001*
Autonomy	71	2.35 (1.05)	3.47 (.91)	-7.31*(70)*	<0.001*
Support Network	71	2.80 (1.15)	2.96 (1.19)	-.85*(70)*	.4
Support of Ethical Practice	71	3.53 (.82)	3.50 (.74)	.42*(70)*	.68

Note. n = number of responses; SD = Standard Deviation; *df* = degrees of freedom
*p** significant two tailed *p* value at an α of .05;

Migration intention (MI) scores are displayed in Table 4. In this study, higher scores indicate an increased probability of the individual staying in Canada. Non-migrants had significantly higher scores for economic rewards (*Mean (SD)* = 12.20 (3.75); *p* = .05) and professional development (*Mean (SD)* = 15.59 (3.74); *p* = .04) indicating an increased probability they would stay in Canada. For the migrant group, lower scores suggest an increased probability that they would leave Canada to have their economic (*Mean* = 10.52; *SD* = 4.32) and professional development (*Mean* = 13.56; *SD* = 5.47) job values met.

Table 4

Migrants and Non-migrants: Migration Intention Scores

		Migration Intention Scores (Value x Expectation Canada)	
	n	*Mean (SD)*	*p-value*
Variable			
Economic reward			.05*
Migrants	74	10.52 (4.32)	
Non-migrants	37	12.20 (3.75)	
Professional Development			.04*
Migrants	74	13.56 (5.47)	
Non-migrants	37	15.59 (3.74)	
Healthy Work Environment			.08
Migrants	74	13.19 (5.11)	
Non-migrants	37	14.83 (3.21)	
Personal Safety			.99
Migrants	71	16.38 (4.48)	
Non-migrants	37	16.37 (3.52)	
Adventure			.82
Migrants	71	9.52 (4.78)	
Non-migrants	36	9.31 (4.64)	
Autonomy			.09
Migrants	71	10.08 (5.06)	
Non-migrants	36	11.75 (3.91)	
Support Network			.77
Migrants	71	11.03 (5.65)	
Non-migrants	36	11.36 (5.16)	
Support of Ethical Practice			.84
Migrants	71	16.55 (4.61)	
Non-migrants	36	16.75 (4.81)	

Note. n = number of responses; SD = Standard Deviation; *p** significant two tailed *p* value at an α of .05;

Table 5

Logistic Regression Predicting Likelihood of Intent to Migrate

Variable	*B*	*SE*	*Odds Ratio*	*p*	*95.0% C.I. for Odds Ratio*
Healthy Work Environment	-2.35	.95	.10	.01*	.01-.62
Lived in Border City	1.66	.68	5.24	.01*	1.39-19.76

*p** significant two tailed P value at an α of .05

To assess the predictors of intent to migrate, logistic regression was performed using the step-wise forward approach (see Table 5). The initial model started with ten independent variables (values by category, expectations for Canada by category, knows a nurse in Michigan, has a relative that works in Michigan, previous migration history, previous degree, age, gender, single/partnered status and lived in a border city prior to entry to nursing program). The final model however contained only two independent predictors (valuing healthy work environment and lived in a border city) indicating that the model with these two predictors was significantly different from the constant only model (i.e., it was able to distinguish between migrants and non-migrants; $p <$ .001). The model correctly classified 69.8% of cases. The odds ratio for healthy work environment of .10 indicates that non-migrants were 10 times more likely to value a healthy work environment than migrants; those who lived in a border city recorded an odds ratio of 5.24 indicating those who lived in a border city were 5.24 times more likely to migrate, controlling for all other factors in the model.

4.2. Qualitative findings

4.21. Interview response and sample characteristics

Although 37 graduates initially volunteered to be interviewed, only 10 responded to the email invitation. The sample consisted of seven female and three male. The age ranged from 22 to 40 years (*Mean* = 25.7; *SD* =6.4). Two were married with children. Prior to program entry seven students lived in a border city and three lived in non-border cities. At the time of these interviews,

three students had secured full time six month contract positions, five had part time positions in Canada, and two had no job. One sought only part time employment to attend graduate school; the others all preferred full time positions. The findings are summarized by plans for first job, factors influencing decision making, and job factors identified as important.

4.22. Plans for first job

All participants voiced a preference to work in Canada but all were willing to migrate for job opportunities. The majority were planning to take their US licensing exams but one individual refused to work in the US. "I've considered another country just not the US. I've considered England, New Zealand or Australia. I've looked at the different health care systems and I prefer the type of socialized health care we have similar to Canada. I believe in those values in our health care system".

Some participants voiced an openness to job opportunities expressed as "I am not picky as long as I can get a spot"; others voiced a desire to work in preferred specialty and an unwillingness to accept jobs in other areas. "Doing what you really love is important. Not just settling for medical/surgical if that isn't really what you want to do."

They voiced frustration with the job market which they perceived as indifferent towards them. "I don't see these hospitals or health systems really trying to sell themselves to us." They had expected many job opportunities

because of the forecasted nursing shortage but this was not the reality they faced as new graduates.

To be successful, even in securing a part time position, they identified the need to actively and often aggressively pursue job opportunities. Recognizing the competitive nature of the job market and in some specialties (e.g., Obstetrics), one student paid for and took additional classes to better prepare her to compete. "No one ever told me that it's important to go to classes. That's what I did to get this job… I didn't really know if it was going to help me but it did."

4.23. Factors influencing migration intentions

The factors that influenced decision making in choice of a first job yielded four themes: family and community, clinical experiences, financial pressures, and ease of migration.

Participants all voiced a preference to stay close to family for a first job. They verbalized a feeling of being pushed from their home community to other Canadian cities or from Canada in search of work. "I know a lot of people from last year as well who would have liked to stay around here. A lot of them had to leave because they couldn't find anything."

One of the most significant findings was the influence of clinical courses on the new graduate's first job. Student clinical placements influenced the choice of specialty. "I definitely would have to say that clinical was a big factor in where I want to go. I think every year I had a different placement so it kind of changed my mind, it would bring me to new things."

Clinical experiences also influenced job expectations and informed students of what they could expect from observations of real world health care environments. For example, most described nurse leaders as invisible "From my experience on all the floors that I've been on, I've only been on one floor where there's actually someone who I could actually point out as a nurse leader in the four years of clinical." Problems with adequate staffing levels were also observed. "A job factor that is important to me is appropriate staffing levels. Even though it's hard to find, it would be nice."

Clinical instructors also played an important role in influencing expectations. "You spend a lot of time with your instructor." Instructors who had worked on both sides of the border exposed students to job expectations in other countries. "We actually were told [by our instructors] that the US has a longer orientation time than we have in Canada."

Clinical courses also created job opportunities because of the contact with potential employers. Participants emphasized that job success was a result of meeting people in clinical courses in both community and hospital, summarized repeatedly as "not what you know but who you know." All but one participant currently working had a clinical experience in their final year in that agency. "I'm very lucky that I precepted with this agency because I know of tons of people who've applied there from our graduating class and no one even had an interview."

Participants spoke about financial burden from attending school and the pressure to get a job. The cost of education, student loans, and child/spouse responsibilities for the older participants made it necessary to have a steady income, preferably with benefits. Half readily accepted part time work, even though needing full time, as a result of these pressures.

The need to migrate for a job, especially to the US, was not described as a challenging undertaking. Several students identified that that they had hired companies, who they met at recruitment fairs, to assist them with the complexities of migration to another country. These companies coordinated the paperwork for licensing exams in the US and Visa Screens. Those who lived along the border voiced interest in daily commuter migration and work in the US but live in Canada.

4.24. Job factors identified as most important

Participants were given a list of 25 job factors from the survey and asked to rate five that were most important to them, since migration intentions are individually determined (De Jong and Fawcett, 1981). Categories identified as most important were economic rewards (30%), healthy work environment (30%), autonomy (12%), support of ethical practice (10%), personal safety (6%), support network (4%) and adventure (2%). Although these findings provide insight into the importance of individual job factors, some conflict with other findings arose. For example, all students expressed the importance of family in influencing job plans but only two respondents (4%) identified it in their top five.

All participants emphasized the importance of a supportive orientation. Since there are so few new hires, new graduates were often hired alone, oriented alone, and therefore lacked the support of other new learners where "you can confide in each other." Support was best expressed as "to just be understanding and be empathetic because we were all students once upon a time" and "Nurses eat their young. It's true. I'm new and a nuisance".

These interviews provided the individual's perspective on the factors influencing migration intentions and the ease with which migration is considered when values for a first job are not realized.

5. **Discussion**

5.1. Migration intentions of new graduates

This research provides insights into the migration intentions of recently graduated Canadian nurses, where two thirds considered migrating. Nurse migration has been identified as a symptom of a failing health system and "not the primary disease" (Kingma, 2008) and these findings suggest that these graduates are aware of symptoms of problems in the nurse's work environment before entering the workforce. The majority preferred to work in Canada, but because of a perceived absence of valued jobs factors, were willing to migrate. This supports previous research that nurses migrate from their home country reluctantly (Kingma, 2006a). "Without both sets of [push and pull] forces operating in unison, little migration would occur. In other words no matter how strong the

'pull' forces, large scale migration will not take place from countries where strong 'push' factors do not exist" (Meija, Pizurki and Royston, 1979, p. 102). Although it is unknown how many of these graduates will actually migrate, based on historical trends, some will leave Canada. This "brain drain" from Canada's health system can be reversed to a "brain gain" if they can be enticed to return to Canada after gaining experience in other countries. In addition to more research on preventing nurses from leaving Canada, research focused on return migration of Canadian nurses is urgently needed (Haour-Knipe and Davies, 2008; McGillis Hall et al., 2009).

5.2. Factors influencing migration intentions and the V-E framework

This research explored the antecedent factors influencing graduate nurse migration. The findings support the hypothesis that nurses weigh certain employment values (goals) against the expectation of achieving them, thus influencing intentions to migrate or stay. The desire for fulltime work and professional development have previously been identified as key factors contributing to Canadian nurse migration, especially to the US (McGillis Hall et al., 2009) but this study identifies additional factors that should be included in future research.

Expectations influenced migration intentions in this study; migrants and non-migrants had very different expectations for a job in Canada. Migrants expected a job in another country, other than Canada, would fulfill their goals for economic

rewards, professional development, healthy work environment, adventure, and autonomy. Before even entering the workforce, they perceived their job expectations would not be met in Canada, raising several concerns. Although job dissatisfaction has been identified in early career (Gillis, Jackson and Beiswanger, 2004; Laschinger, Finegan and Wilk, 2009; Rheaume, Clement and LeBel, 2011), this study offers a snap shot of the expectations of the graduate prior to entry to the workforce and may foreshadow how well this group will be integrated and retained. New graduates may be less prone to disillusionment and be retained in the profession if they have realistic expectations. The benefit of transition to practice programs (Burns and Poster, 2008) and career planning (McGillis Hall et al., 2004) offered prior to graduation should be evaluated by nurse educators. Non-migrants expected that their economic, professional development and autonomy goals would be better met in Canada. Although planning to remain in Canada, their first job experience, if negative, may change their migration intentions. A question that is raised by these findings is why the expectations of these groups differed. Were the differences related to educational experiences or other variables? This issue requires further study.

Education experiences were proposed as a factor influencing migration because of its strong influence on career intentions (Hayes et al., 2006). This research provides further evidence that clinical instructors and clinical experiences play a significant role in framing perceptions of the work environment. Students observe only small parts of a complex health care system

and may form inaccurate perceptions. Educators may inadvertently contribute to nurse migration by not recognizing the role that negative clinical experiences and environments play in forming students' expectations and intervening to assist the student to interpret these observations. As a result of nursing shortages, nursing programs have been pressured to increase class sizes without the funding to hire additional full-time faculty (Hayes et al., 2006). Increasing numbers of part time and novice clinical instructors may influence students' career expectations, and therefore migration decisions, more than full time faculty. This study indicates that Canadian nurses who have worked in the US are aware of and share the differences in the work environments (e.g., flexible scheduling) with the students, thus influencing job expectations. More attention is needed to how nursing programs and clinical experiences influence these expectations.

This study supported previous assertions (College of Registered Nurses of British Columbia, 2006) that clinical placements influenced where graduates secured their first job. Students assigned clinical experiences with jobs openings have an advantage over their classmates and may pressure faculty to secure placements in these areas. Educators and health care leaders should review placement and hiring practices to ensure equity.

Both migrants and non-migrants valued autonomy in their choice of preferred specialty/ job sector. Their job preferences resembled participants in other studies (Hayes et al., 2006). They preferred urban acute care settings in medicine, surgery, critical care, and maternal child units and their choices were heavily

influenced by previous clinical placements; they infrequently chose geriatrics or mental health. This raises several issues. Job preferences may not correspond with needs in the job market and identifying a preferred specialty too early in a career (with limited exposure and experience) may limit job opportunities. In addition, the health care system is being redesigned and career opportunities are emerging in new sectors (e.g., primary health centres). Nursing programs may be inadvertently reinforcing stereotypical views of nursing and encouraging premature specialization (Hayes et al., 2006). They need to examine how to prepare these graduates for the current job market and the new roles for nurses that will emerge in the future health care system.

The majority of graduates in this study were young indicating that they had entered nursing from high school. Although age and marital/child status were not found to influence migration in this study, it has been a factor in other studies (Robinson, Murrells and Griffiths, 2008) resulting in recommendations to increase the diversity of students as a strategy to reduce migration.

Personal safety has been identified as a major reason for nurse migration in many other countries (Kingma, 2006a). Migrants, in this study however, were not leaving Canada for personal safety reasons. This finding was not unexpected as Canada has been identified as one of the safest in the world (Institute for Economics and Peace, 2011).

An often identified barrier to migration is immigration and licensing issues in the receiving country. Businesses, which are very profitable, have been created to assist nurses in overcoming these barriers (Brush, Sochalski, & Berger, 2004). Graduates reported that these companies were readily available at job recruitment fairs to assist with licensing and migration. This finding supports that nurse migration is big business (Kingma, 2006b) and Canadian nurses have not been excluded from these business plans.

Knowing a nurse who worked in the US (Michigan) influenced the intention to migrate and living in a border community was a strong predictor of migration. These findings support the notion of a migration network, a set of interpersonal relations forming a social network. These networks are one of the most important explanatory factors of migration and result in migration becoming a self-perpetuating phenomenon (Arango, 2000, p. 292). They promote migration by offering support to the individual and reduce the anxiety of working in a new country (Kingma, 2006a). Border communities may be at greater risk for nursing shortages in the future as a result of these networks, and requires ongoing monitoring.

Previous research has identified an urgent need to obtain a better understanding of why nurses leave Canada and develop strategies to address why they leave (Baumann et al., 2006; Little, 2007; Pink, McGillis Hall and Leatt, 2004; Registered Nurses Association of Ontario, 2001). Using the V-E

framework, this research has identified a high percentage of graduates voicing intentions to migrate and suggested potential interventions that could be undertaken prior to their entry to the workforce.

5.3. Limitations

There are several limitations to this study. Since the study focused on a cohort of nurse graduates from a university located in one border community, the findings may not be generalizable to other populations. Future research on other border and non-border communities is recommended. Also, this study focused on migration intentions which do not always result in migration (De Jong and Fawcett, 1981). Future studies can follow-up on actual migration behaviour and the development of a psychometric scale based on the V-E framework to predict migration behaviors.

6. Conclusion

Reports have been produced to address the nursing shortage in Canada (Canadian Nurses Association, 2009), but the important issue of the loss of nurses through migration, has been absent. The lack of full time positions pushing nurses from Canada has been well documented but it has been unclear whether other valued job factors and personal characteristics of these nurses also contributed to this movement. This study explored the use of a value expectancy framework and additional factors which could be used to identify migration intentions and the factors influencing an individual's decision making.

Understanding the causes of nurse migration is an essential step in improving health human resource planning (Kingma, 2001). The question often asked in nurse migration is "What distinguishes the nurse who decides to stay and the nurse who leaves family, friends and familiar culture to work abroad?" (Kingma, 2004, p. 197). This research provides a unique approach to begin to answer this question.

References

Aiken, L., Buchan, J., Sochalski, J., Nichols, B., Powell, M., 2004. Trends in international migration. Health Affairs 23 (3), 69-77.

Ajzen, I., 1988. Attitudes, personality and behavior. The Dorsey Press, Chicago.

Arango, J., 2000. Explaining migration: a critical view. International Social Science Journal 52 (165), 283-296. doi: 10.1111/1468-2451.00259

Bach, S., 2007. Going global? The regulation of nurse migration in the UK. British Journal of Industrial Relations 45(2), 383-403. doi: 10.1111/j.1467-8543.2007.00619.x

Baumann, A., Blythe, J., 2003. Restucturing, reconsidering, reconstruction: implications for health human resources. International Journal of Public Administration 26 (14), 1561-1579.

Baumann, D., Yan, J., Degelder, J., Malikov, K., 2006. Retention strategies for nursing: a profile of four countries, Human Health Resource 5, Nursing Health Services Research Unit, Hamilton, Canada.

Bazeley, P., 2010. Computer-assisted integration of mixed methods data sources and analysis. In: Tashakkori, A ., Teddlie, C. (Eds.), Sage hhandbook of Mixed Methods in Social and Behavioral Research. Sage,Thousand Oaks, California, pp. 431-467).

Bijak, J., 2006. Forecasting international migration: selected theories, models, and methods. Retrieved October 10, 2010, from Central European Forum for Migration Research: http://www.cefmr.pan.pl/docs/cefmr_wp_2006-04.pdf

Bradburn, N., Sudman, S., Wansink, B., 2004. Asking questions: the definitive guide to questionnaire design- for market research, political polls, and social and health questionnaires. Jossey-Bass, San Francisco.

Brush B., 2008. Global nurse migration today. Journal of Nursing Scholarship 40(1), 20-25.

Buchan, J., Calman, L., 2004. The global shortage of Registered Nurses: an overview of issues and actions. Retrieved from http://www.icn.ch/global/shortage.pdf

Buchan, J., 2006. The impact of global nurse migration on health services delivery. Policy, Politics, & Nursing Practice 7 (3), 16S-25S.

Buchan, J., Sochalski, J., 2004. The migration of nurses: tends and policies. Bulletin of the World Health Organization 82, 587-594.

Burns, N., Grove, S., 2005. The practice of nursing research: conduct, critique, and utilization. Elsevier Saunders, St. Louis.

Burns, P., Poster, E., 2008. Competency development in new Registered Nurse graduates: closing the gap between education and practice. Journal of Continuing Education in Nursing 39 (2), 67-73.

Canadian Institute for Health Information., 2010, December 10. Retrieved October 3, 2011, from https://secure.cihi.ca/estore/productFamily.htm?pf=PFC1565&locale=en&lang=EN&mediatype=0

Canadian Nurses Association, 2008. Code of ethics for Registered Nurses. Canadian Nurses Association, Ottawa, Canada.

Canadian Nurses Association, 2009. Tested solutions for eliminating Canada's Registered Nurse shortage. Canadian Nurses Association, Ottawa, Canada.

College of Registered Nurses of British Columbia (CRNBC), 2006.New Graduate Registered Nurse Study - 2005.CRNBC, Vancouver.

Creswell, J., 2009. Research design: qualitative, quantitative, and mixed methods approaches. Sage, London.

Creswell, J., Plano Clark, V., 2011. Designing and conducting mixed methods research. Sage, Thousand Oaks, California.

De Jong, G., 2000. Expectations, gender, and norms in migration decision-making. Population Studies 54, 307-319.

De Jong, G., Abad, R., Arnold, F., Carino, B., Fawcett, J., Gardner, R., 1983. International and internal decision-making: A value-expectancy based analytical framwork of intentions to move from a Philippine province. International Migration Review 17 (3), 470-484.

De Jong, G., Fawcett, J., 1981. Motivations for migration: an assessment and a value-expectancy research model. In G. De Jong, G., Gardner,R. (Eds.), Migration Decision Making: Mutlidisciplinary Approaches to Microlevel Studies in Developed and Developing Countries. Pergamon Press, New York, pp. 13-58.

De Jong, G., Richter, K., 1996. Gender, values and intentions to move in rural Thailand. International Migration Review 30, 748-770.

De Jong, G., Davis Root, B., Gardner, R., Fawcett, J., Abad, R., 1986. Migration intentions and behavior: decision making in rural Philippine province. Population and Environment 8 (1 & 2), 41-62.

De Jong, G., Steinmetz, M., 2005. Migration intentions in South Africa and elsewhere. In P. Kok, P.,Gelderblom, D., Oucho, J., van Zyl, J., (Eds.), Migration in South and Southern Africa: Dynamics and Determinants, pp. 249-265. Retrieved October 10, 2010 from http://www.hsrcpress.ac.za/product.php?productid=2094&freedownload=1

Dillman, D., Smyth, J., Christian, L., 2009. Internet, mail, and mixed mode surveys: the tailored design method. John Wiley & Sons, Hoboken, New Jersey.

El-Masri, M., Fox-Wasylyshyn, S., 2005. Missing data: an introductory overview for the novice researcher. Canadian Journal of Nursing Research 37 (4), 156-172.

Field, A., 2005. Discovering statistics using SPSS. Sage, London.

Freeman, M., Baumann, A., Blythe, J., Fisher, A., Akhtar-Danesh, N., 2011. Migration: a concept analysis from a nursing perspective. *Journal of Advanced Nursing*. Advance online publication. doi: 10.1111/j1365-2648.2011.05858.x

Gillis, A., Jackson, W., Beiswanger, D., 2004. University nurse graduates: perspectives on factors of retention and mobility. Nursing Leadership 17 (1), 97-110.

Habermann, M., Stagge, M., 2010. Nurse migration: a challenge for the profession and health-care systems. Journal of Public Health 18, 43-51. doi 10.1007/s10389-009-0279-0

Hagen-Zanker, J., 2008. Why do people migrate? a review of the theoretical literature. Retrieved October 10, 2010, from Social Science Research Network: SSRN: http://ssrn.com/abstract=1105657

Hancock, P., 2008. Nurse migration: the effects on nursing education. International Nursing Review 55, 258-264.

Haour-Knipe, M., Davies, A., 2008. Return migration of nurses. International Centre on Nurse Migration, Geneva.

Hayes, L., Orchard, C., McGillis Hall, L., Nincic, V., O'Brien-Pallas, L., Andrews, G., 2006. Career intentions of nursing students and new nurse graduates: a review of the literature. International Journal of Nursing Education Scholarship 3 (1), 1-15. doi:10.2202/1548-923X.1281.

Hazard Munro, B., 2005. Statistical methods for health care research. Lippincott, Williams & Wilkins, Philadelphia.

Hsieh, H., Shannon, S., 2005. Three approaches to qualitative content analysis. Qualitative Health Research 15 (9), 1277-1288.

Industry Canada, 1999. Industry Canada: international migration of skilled workers: facts and factors. Human Resources Development Canada.

Institute for Economics and Peace, 2011. Global peace index: 2011 methodology, results & findings. Retrieved October 30, 2011, from http://www.visionofhumanity.org/wp-content/uploads/PDF/2011/2011%20GPI%20Results%20Report.pdf

Institute of Medicine, 2010. The future of nursing: leading change, advancing health. Retrieved December 15, 2010 from http://www.nap.edu/catalog.php?record_id=12956#description.

Kingma, M., 2001. Nursing migration: global treasure hunt or disaster-in-the-making? Nursing Inquiry 8 (4), 205-212.

Kingma, M., 2004. Nurse migration is only a symptom, not the disease. International Nursing review 51, 196-197.

Kingma, M., 2006a. Nurses on the move: migration and the global health economy. Cornell University Press, London.

Kingma, M., 2006b. Nurse migration: mini-business, big business. Harvard Health Policy Review 7 (1), 102-112.

Kingma, M., 2008, May 31. OJIN: The Online Journal of Issues in Nursing. Retrieved July 21, 2009, from Nurses on the move: historical perspectives and current issues: http://www.nursingworld.org/MainMenuCategories/ANAMarketplace/ANAPeriodicals/OJIN/TableofContents/vol132008/No2May08/NursesontheMove.aspx

Kline, D., 2003. Push and pull factors in international nurse migration. Journal of Nursing Scholarship 35 (2), 107-111.

Laschinger, H., Finegan, J., Wilk, P., 2009. New graduate burnout: the impact of professioanl practice environment, workplace civility, and empowerment. Nursing Economics 27 (6), 377-383.

Little, L., 2007. Nurse migration: a Canadian case study. Health Services Research 42 (3), 1336 - 1353.

McGillis Hall, L., Pink, G., Jones, C., Leatt, P., Gates, M., Peterson, J., 2009. Is the grass any greener? Canada to United States of America nurse migration. International Nursing Review 56, 198-205.

McGillis Hall, L., Waddell, J., Donner, G., & Wheeler, M., 2004. Outcomes of a career planning and development program for registered nurses. Nursing Economics 22 (5), 231-238.

Meija, A., Pizurki, H., Royston, E., 1979. Physician and nurse migration: analysis and policy implications. World Health Organization, Geneva.

Miles, M., Huberman, M., 1994. Qualitative data analysis. Sage, Thousand Oaks, California.

Nguyen, L., Ropers, S., Nderitu, E., Zuyderduin, A., Luboga, S., Hagopian, A., 2008. Intent to migrate among nursing students in Uganda: measures of the brain drain in the next generation of health professionals. Human Resources for Health 6 (5).doi: 10.1186/1478-4491-6-5.

Oulton, J., 2006. The global nursing shortage: an overview of issues and actions. Policy, Politics, & Nursing Practice 7 (3), 34S-39S.

Pallant, J., 2010. SPSS survival manual. McGraw Hill, Berkshire, England.

Pink, G., McGillis Hall, L., & Leatt, P., 2004. Canadian-trained nurses in North Carolina. Longwoods Review 2 (2), Retrieved October 20, 2010 from www.longwoods.com/view.php?aid=17237&cat=368

Pope, C., Ziebland, S., Mays, N., 2000. Analysing qualitative data. British Medical Journal 320, 114-116.

Registered Nurses Association of Ontario, 2001. Earning their return: when why Ontario RNs left Canada, and what will bring them back. Registered Nurses Association of Ontario, Toronto, Canada.

Rheaume, A., Clement, L., LeBel, N., 2011. Understanding intentions to leave amongst new graduate Canadian nurses: a repeated cross sectional survey. International Journal of Nursing Studies 48, 490-500.

Robinson, S., Murrells, T., Griffiths, P., 2008. Investigating the dynamics of nurse migration in early career: a longitudinal questionnaire survey of variation in regional retention of diploma qualifiers in England . International Journal of Nursing Studies 45, 1064-1080.

Schwarz, N., 1999. Self-reports: how the questions shape the answers. American Psychologist 54 (2), 93-105.

Streiner, D., Norman, G., 2008. Health measurement scales: a practical guide to their development and use. Oxford University Press, Oxford.

Tabachnick, B., Fidell, L., 2007. Using multivariate staistics. Pearson Education, Boston.

Tomblin Murphy, G., Birch, S., Alder, R., MacKenzie, A., Lethbridge, L., Little, L. & Cook, A.(2009). *Tested solutions for eliminating Canada's Registered Nurse shortage.* Canadian Nurses Association, Ottawa.

Waltz, C., Strickland, O., Lenz, E., 2005. Measurment in nursing and health research.Springer, New York.

Windsor Essex County Health Unit, 2009. Windsor Essex County popoluation report 2009. Retrieved October 30, 2011, from http://www.wechealthunit.org/about-us/reports/2009_WEC_populationreport.pdf

Zhao, J., Drew, D., Murray, S., 2000. Brain drain and brain gain: the migration of knowledge workers from and to Canada. Educational Quarterly Review 6 (3), 8.

CHAPTER FIVE

Thesis Conclusion

This sandwich thesis describes a program of research focused on nurse migration. It includes three articles accepted or submitted for publication. The first two articles review findings from original qualitative studies exploring the concept of nurse migration and the use of case study methodology in the study of nurse migration. The third reports on the findings of a mixed methods study exploring the migration intentions of nurse graduates in a Canadian border city and the factors influencing these intentions.

The purpose of this chapter is to synthesize the thesis findings, offer additional insights, highlight the implications of the findings for policy, practice and research, detail limitations, and offer concluding comments.

Contributions and Implications for Policy, Practice and Research

The concept analysis presented in Chapter Two demonstrated that nurse migration as a multifaceted concept by defining its attributes, antecedents and consequences. Five attributes were identified: the individual's motivation and decisions, external barriers and facilitators, freedom of choice to migrate, freedom to migrate as a human right, and dynamic movement. The antecedents were identified as the political, social, economic, legal, historical and educational forces that constitute the push and pull framework. The consequences of migration were described as positive or negative depending on their effects on the

migrant and other stakeholders such as the source country, destination country, health care systems and the nursing profession. These findings were organized into a sequential framework illustrating a middle-range descriptive theory of nurse migration (Fawcett, 2005). This requires further development and testing but offers a clearer visual representation of the entire migration experience that includes the outcomes (consequences), an aspect that is often overlooked. This framework offers a comprehensive and thorough approach to guide the design of policy, practice, and research in this field.

The terms used in the literature to describe nurse migrants were examined. The analysis suggested that although the term "migration" is commonly used, it is a complex term with various interpretations. Differences reflected the legal terminology surrounding migration, the discipline conducting the research, the country where the research was conducted or language used to label the migrants as foreigners. The findings remind researchers of the need to define terms clearly and use language that is broadly understood, rather than being discipline or country specific.

The term commuter migrant was specifically explored. Although commuter nurse migrants exist in a number of countries (e.g., Canada, European Union), they have rarely been studied. In this research, a commuter migrant was defined as a RN who lives in Canada but crosses the international border each day to work in the US. "Commuter" is most commonly used in the nursing literature

to refer to circular or shuttle migrants who cross borders for short periods of work but not on a daily basis (Buchan, Kingma, & Lorenzo, 2005; Haour-Knipe & Davies, 2008). Although the Migration Policy Institute (2009) uses "border workers" for persons commuting between their country of usual residence and their place of employment abroad, this reflects legal terminology and was not found in the nurse migration literature. This research offered a unique contribution to the nurse migration literature by identifying and defining a special group of nurse migrants, commuters, who cross an international border daily.

Racism and discrimination are the most serious problems that migrant nurses encounter (Kingma, 2006a). This analysis raised awareness that language found in the literature for nurse migrants often unintentionally labelled them as outsiders (e.g., foreign nurses). It recommended that terms used for this group be scrutinized for their potential to contribute to alienation. The term internationally educated nurses (IENs) (Baumann, Blythe, Rheaume, & McIntosh, 2006) was a preferred term found in the literature but even this term can be misunderstood. An IEN is often assumed to be synonymous with a nurse migrant but this may not always be the case. For example, a Canadian nurse in a border community could receive their nursing education in another country (e.g., US) but choose to work in Canada after graduation. This individual might be accurately labelled an IEN in Canada but would not likely be considered a nurse migrant. This distinction further reinforces the need for clearly defined terms in relation to nurse migration.

Unique insights into the challenges of conducting a concept analysis were identified. Thirteen different frameworks were found in the nursing literature (Beckwith, Dickinson, & Kendall, 2008) and it was unclear which one should be used to analyze the concept of migration. Walker and Avant's (2005) process, presented as simple steps, did not recognize the complexity of the literature review and the quality analysis required to synthesize the findings into attributes, antecedents, and consequences. To advance this method of research, several approaches (Penrod & Hupcey, 2005; Rodgers, 2000; Walker & Avant, 2005) could be used concurrently to analyze the same concept. This would test the strength and limitations of various models, allow for examination of the findings through the use of different approaches, and guide future researchers in model selection. This might also result in a new model that could address some of the criticisms of the approaches and/or use of concept analysis in nursing (Beckwith et al., 2008; Hupcey & Penrod, 2005; Paley, 1996).

In Chapter Three, an integrative review was conducted on the use of case study methodology (CSM) in the study of nurse migration. This methodology has a strong historical tradition in the study of migrant populations (Tellis, 1997) but few publications on nurse migration used it. The findings suggested more case studies should be published in nursing journals to enhance the profession's awareness of the topic of nurse migration and encourage further research.

A major challenge in locating studies was the inconsistent and unclear use of the term "case study". Lack of clarity is a long standing problem with CSM

and the nurse migration literature was no different. In addition, individual studies did not specify the CSM approach used (e.g., Yin or Stake) and most did not describe the sampling method, the informed consent process, data collection, data analysis, rigour, or study limitations. These omissions present a problem in evaluating the quality of studies and also limit their usefulness in guiding future research. Reviewing a study's limitations can inform the researcher of design problems that should be avoided (Polit & Beck, 2004). The absence of these elements likely reflected journal requirements rather than research quality because journals define the structure of submitted articles based on their target audience. This finding has two implications. First there is a need for methodological publications on nurse migration using CSM and other methodologies that follow best practices. "Research should be reported transparently so that readers can follow what was planned, what was done, what was found, and what conclusions were drawn. The credibility of research depends on a critical assessment by others of the strengths and weaknesses in study design, conduct, and analysis (von Elm et al., 2007, p. 806). Checklists, designed specifically for different types of methodologies, have recently been developed to ensure essential elements are included (Simera, Moher, Hoey, Schulz, & Altman, 2010). Second, there is a need for publications that communicate research information without describing the research methodology (Yin, 2009). This promotes the dissemination of research findings to specific target audiences, often non-specialists such as government officials, who require the information to guide policy decisions. Both

types of publications are needed to advance the understanding and study of nurse migration.

Nurse migration is a global issue but migration issues are context and country dependent. Understanding nurse migration, therefore, requires that nurses from all parts of the globe be represented both as researchers and participants in future studies. Findings also supported the need for more primary research since most CSM studies used secondary sources for data such as licensing boards and national nursing surveys. Themes included reasons for migration (antecedents) and the outcomes (consequences) of migration, reflecting the findings of the concept analysis. A comprehensive integrative review, focusing on all current studies of nurse migration (e.g., last five years) was recommended. This would contribute to a broader understanding of topics studied, the research methods used, gaps in our knowledge and where future research should be concentrated.

Chapter Four, presented a mixed methods study on the factors influencing the migration intentions of nursing graduates in a Canadian border community. This research provided insights into the migration intentions of recently graduated Canadian nurses. The results indicated that two thirds considered migrating and sixteen percent were interested in becoming commuter migrants. Although it is not known how many of these graduates will actually migrate, based on historical trends, some will leave Canada. Future studies are needed to follow-up on the actual migration behaviour and the factors influencing it.

Theories of migration have rarely informed research on nurse migration. "Although migration theory has been evolving for many decades, determining why nurses migrate is a complex matter, and no one theory has yet captured all the forces that influence an individual's decision to move" (Kingma, 2006b, p. 13). For this research, a unique approach was used. The V-E Framework was adapted to explore intention to migrate among nurse graduates. Eight categories of job factors important to nurses were generated. In addition, personal characteristics which have been shown to influence migration were included in the framework.

The survey questions offered a novel approach to identify factors that were driving migration intentions. Participants were first asked how strongly a job factor was valued and second, their expectation of achieving this job factor. The findings supported the hypothesis that nurses weigh certain employment values (goals) against the expectation of achieving them, thus influencing intentions to migrate or stay. Factors which are pushing nurses to migrate (e.g., limited professional development) are easily identified with this approach. These findings can be communicated to institutions and policy makers and interventions addressing specific factors can be implemented to increase the appeal of staying. Also, the V-E framework proved useful in predicting migration behaviours in other populations (De Jong, 2000) and holds promise for predicting migration of nurses. Future research should focus on developing a psychometric scale for this

purpose. Although this survey was developed for new graduates, it could be adapted to explore the migration intentions of other groups (e.g., new career nurses) by examining the job factors of importance to them.

Evidence from the interviews revealed that clinical instructors and clinical experiences play a significant role in framing students' perceptions of the work environment, influencing their choice of specialty, and where they secured their first job. The study offered a snapshot of the graduates' perception of the work environment before entering the workforce and identified distinctions between what was valued in a first job and what was expected. The graduates doubted that their future work environment would meet many of their job expectations, a troubling finding requiring further investigation. Findings reinforced the importance of a healthy work environment that includes an adequate orientation, flexible scheduling, appropriate staffing, and visible nurse leaders. Expectations influenced their migration intentions and may foreshadow how well they would be integrated and retained in the workforce. Migrants and non-migrants held different job expectations and it was unclear whether these differences were related to educational experiences or other variables. More attention by educators and researchers directed at understanding how nursing programs and clinical experiences influence these expectations is needed.

Reviewing the nurse migration literature identified the commoditisation of nursing as a theme, a development that should raise concerns for the nursing

profession. The migration of nurses is a lucrative business involving many stakeholders (Brush, Sochalski, & Berger, 2004). Companies and governments recognize that marketing nurses in a time of shortage can be very profitable. "When migration exists on a massive scale – as is the case with nurses – the business opportunities are endless ... Travel agents, recruiters, lawyers, and advertising agencies are not the only players involved" (Kingma, 2006b, pp. 103-104). If products can be produced more cheaply in other countries, what is to prevent this happening with nurses? Several countries already produce nurses for export and the growth of this business has been exponential. The profitable business of establishing schools of nursing is prevalent in the Philippines which doubled its nursing programs from 198 in 1998 to 370 in 2004 (Kingma, 2006b, p. 106); India has experienced a massive escalation in the number of programs focusing on export with one agency alone hoping to export 100,000 nurses to the US by 2010 (Khadria, 2007); Off shore nursing schools have sprung up such as the International University of Nursing which hopes to become the largest nursing school in the world (Kingsbury, 2007). Although international recruitment presents a quick fix for countries in dire need of nurses, there is no published research on the adaptation of these nurses to different approaches and philosophies of practice (Buchan, 2004) or the impact of this migration on the health systems and remaining staff in the source countries (Buchan et al., 2005). Professional organizations, educators, and policy makers should monitor this for-profit activity closely for its potential to undermine the profession and exploit

nurse migrants. Managing migration, including developing possible models of training for export, requires examination and evaluation (Buchan et al., 2005).

This research was focused on nurses who live in a Canadian border community, a group that requires ongoing study and monitoring. The US continues to be the largest importer of nurses and Canada is an important source country, especially for border states (Aiken, Buchan, Sochalski, Nichols, & Powell, 2004). The US is projecting a deficit of 285,000 full time equivalents (FTEs) by 2015, a deficit three times larger than any experienced in the US in 50 years; it is expected to reach 500,000 by 2025 (Buerhaus, Staiger, & Auerbach, 2008). Living in a border community was a strong predictor of migration. Findings identified nurse migration networks in which knowing a nurse who worked in the US (Michigan) influenced intention to migrate. This study also confirmed that Canadian nurses living in border communities are included in business ventures aimed at facilitating migration. Companies offer services to reduce the barriers to commuter migration (e.g., visa requirements) for a fee. Border communities may be at greater risk for nursing shortages in the future as a result of migration networks, expectations of better working conditions in the US, and businesses focused on facilitating migration.

Also, a third of the students studied identified that they planned to move within Canada for work (internal migrants) indicating that this border community also educates nurses to meet national health human resource needs. A loss of

these nurses to international migration would affect both this border city and the rest of Canada.

This research focused attention on commuter migrants who although living in their home country, may experience similar negative consequences of migration as other migrants. These consequences include a sense of isolation and loss of contact with their community and professional networks. When these nurses return to work in their home country, their specialty skills may be underused (North, 2007) and they may experience a loss of status (e.g., union seniority) or feel a stranger in their own country (Kingma, 2006a). Future research on return migrants should include commuter migrants.

Better methods to track migration are essential. Researchers have outlined the problems due to the lack of standardized data and comparable databases (Baumann, Blythe, Kolotylo, & Underwood, 2004; Diallo, 2004). Accurate statistical data is needed to implement and evaluate decisions but most countries do not track these nurses when they migrate or return (Aiken, 2007; Diallo, 2004; Haour-Knipe & Davies, 2008). Recommendations include using existing data more effectively, improving the quality and comparability of data, harmonizing data collection with simple templates between source and destination countries (Diallo, 2004) and creating national databases to serve national and international needs (Baumann et al., 2004). Accurate statistics on nurse migration statistics should be a priority for licensing bodies, professional associations, and policy makers because of their importance to overall health human resource planning.

As this study identified, it is essential that these databases begin tracking nurses upon graduation.

Limitations

A major limitation of this thesis is that only English language literature was reviewed. In addition, experts in the field of migration acknowledge that in the past decade, there has been an "explosion of interest" in international migration and "…no scholar nowadays can feel adequate when confronting the avalanche of literature that followed" (Favell, 2008, p. 259). Given the volume of literature and the numerous web sites focusing on migration, some studies that would have contributed to this work may have been overlooked. The integrative review (Chapter Three) may have missed some published case studies because of inconsistent use of this term in the titles and abstracts of published works. The study in Chapter Four focused on a cohort of nurse graduates from a university located in one border community and the findings may not be generalizable to other populations. Future research on other border and non-border communities was recommended.

Conclusion

The purpose of this thesis was to focus the attention of the nursing profession and disciplines interested in health human resource (HHR) planning on the important topic of nurse migration. The V-E Framework offered a new approach for researchers to explore the migration intentions of nurses and the factors

influencing these intentions. Nurse migration is a growing global phenomenon with major implications for the nursing profession and the health of the citizens of every country (Brush, 2008). There is a need for more primary research employing different methodologies to explore the characteristics, causes, and consequences of this movement that were identified through this research. "The question is no longer whether to have migration, but rather how to manage migration effectively so as to enhance its positive and reduce its negative impacts" (International Organization for Migration, 2009). It is hoped that this research will contribute to achieving this goal.

References

Aiken, L. (2007). U.S. nurse labor market dynamics are key to global nurse sufficiency. *Health Services Research, 42*(3), 1299-1320. doi:10.1111/j.1475-6773.2007.00714x

Aiken, L., Buchan, J., Sochalski, J., Nichols, B., & Powell, M. (2004). Trends in international migration. *Health Affairs, 23*(3), 69-77.

Baumann, A., Blythe, J., Kolotylo, C., & Underwood, J. (2004). *Immigration and emigration trends: A Canadian perspective.* Retrieved from Canadian Nurses Association: http://www.cna-nurses.ca/cna/documents/pdf/publications/immigration_emigration_trends_e.pdf

Baumann, A., Blythe, J., Rheaume, A., & McIntosh, K. (2006, October). *Internationally educated nurses in Ontario: Maximizing the brain gain.* Hamilton, Ontario: Nursing Health Services Research Unit, McMaster University.

Beckwith, S., Dickinson, A., & Kendall, S. (2008). The "con" of concept analysis: A discussion paper which explores and critiques the ontological focus, reliability and antecedents of concept analysis frameworks. *International Journal of Nursing Studies, 45*, 1831-1841.

Brush B. (2008) Global nurse migration today. *Journal of Nursing Scholarship, 40*(1), 20-25.

Brush B., Sochalski J. & Berger A. (2004) Imported care: Recruiting foreign nurses to U.S. health care facilities. *Heatlh Affairs, 23*(3), 78-87.

Buchan, J. (2004). International rescue? The dynamics and policy implications of the international recruitment of nurses to the UK. *Journal of Health Service Research Policy, 9* (Supplement 1), 10-16.

Buchan, J., Kingma, M., & Lorenzo, F. (2005). *International migration of nurses: Trends and policy implications.* Geneva: International Council of Nurses.

Buerhaus, P., Staiger, D., & Auerbach, D. (2008). *The future of the nursing workforce in the United States: Data, trends and implications.* Boston, MA: Jones & Bartlett.

De Jong, G., & Fawcett, J. (1981). Motivations for migration: An assessment and a value-expectancy research model. In G. De Jong, & R. Gardner, *Migration decision making: Mutlidisciplinary approaches to microlevel studies in developed and developing countries* (pp. 13-58). New York: Pergamon Press.

De Jong, G. (2000). Expectations, gender, and norms in migration decision-making. *Population Studies, 54*, 307-319.

Diallo, K. (2004). Data on migration of health workers: Sources, uses and challenges. *Bulletin of World Health Organization, 82*, 601-607.

Favell, A. (2008). Rebooting migration theory: Interdisciplinary, globality, and postdisciplinarity in migration studies. In C. Brettel, & J. Hollifield (Eds.), *Migration theory: Talking across disciplines* (pp. 259-278). New York: Routledge.

Fawcett, J. (2005, October). Middle-range theories are necessary for the advancement of the discipline. *Revista Aquichan, 5* (1), 32-43.

Haour-Knipe, M., & Davies, A. (2008). *Return migration of nurses.* Geneva: International Centre on Nurse Migration.

International Organization for Migration. (2009). *Facts and figures.* Retrieved from http://www.iom.int/jahia/Jahia/about-migration/facts-and-figures/lang/en

Khadria, B. (2007). International nurse recruitment in India. *Health Services Research, 42* (3), 1429-1436.

Kingma, M. (2006a). *Nurses on the move: Migration and the global health economy.* London: Cornell University Press.

Kingma, M. (2006b). Nurse migration: Mini-business, big business. *Harvard Health Policy Review, 7* (1), 102-112.

Kingsbury, K. (2007, August 9). Retrieved from Time Magazine: http://www.time.com/time/magazine/article/0,9171,1651518,00.html

Migration Policy Institute. (2009, September 9). *Migration information source: Glossary*. Retrieved from http://www.migrationinformation.org/Glossary/

North, N. (2007). International nurse migration: Impacts on New Zealand. *Policy, Politics & Nursing Practice, 8* (3), 220-228.

Paley, J. (1996). How not to clarify concepts in nursing. *Journal of Advanced Nursing, 24*, 572-578.

Penrod, J., & Hupcey, J. (2005). Enhancing methodological clarity: Principle-based concept analysis. *Journal of Advanced Nursing, 50*(4), 403-409.

Polit, D., & Beck, C. (2004). *Nursing research: Principles and methods.* Philadelphia: Lippincott Williams & Wilkins.

Rodgers, B. (2000). Concept analysis: An evolutionary view. In B. Rodgers, & K. Knafl, *Concept development in nursing:Foundations, techniques, and applications* (pp. 77-101). Philadelphia: WB Saunders.

Simera, I., Moher, D., Hoey, J., Schulz, K., & Altman, D. (2010). A catalogue of reporting guidelines for health research. *European Journal of Clinical Investigation, 40*(1), 35-53. doi: 10.1111/j.1365-2362.2009.02234.x

Tellis, W. (1997). Introduction to case study. *The Qualitative Report, 3*(2). Retrieved from http://www.nova.edu/ssss/QR/QR3-2/tellis1.html.

von Elm, E., Egger, M., Altman, D., Pocock, S., Getzsche, P., & Vandenbroucke, J. (2007). Strengthening the reporting of observational studies in epidemiology (STROBE): Guidelines for reporting observational studies. *British Medical Journal, 335*, 806-808.

Yin, R. (2009). *Case study research design and methods.* London: Sage.

Walker, L., & Avant, K. (2005). *Strategies for theory construction in nursing.* Upper Saddle River, New Jersey: Pearson Prentice Hall.

Appendix A: Chapter 2 Letter of Permission (John Wiley and Sons)

JOHN WILEY AND SONS LICENSE TERMS AND CONDITIONS

Nov 23, 2011

This is a License Agreement between Michelle Freeman ("You") and John Wiley and Sons ("John Wiley and Sons") provided by Copyright Clearance Center ("CCC"). The license consists of your order details, the terms and conditions provided by John Wiley and Sons, and the payment terms and conditions.

All payments must be made in full to CCC. For payment instructions, please see information listed at the bottom of this form.

License Number	2794830902772
License date	Nov 23, 2011
Licensed content publisher	John Wiley and Sons
Licensed content publication	Journal of Advanced Nursing
Licensed content title	Migration: a concept analysis from a nursing perspective
Licensed content author	Michelle Freeman,Andrea Baumann,Jennifer Blythe,Anita Fisher,Noori Akhtar-Danesh
Licensed content date	Oct 1, 2011
Start page	no
End page	no
Type of use	Dissertation/Thesis
Requestor type	Author of this Wiley article
Format	Print and electronic
Portion	Full article
Will you be translating?	No
Order reference number	
Total	0.00 USD
Terms and Conditions	

TERMS AND CONDITIONS

This copyrighted material is owned by or exclusively licensed to John Wiley & Sons, Inc. or one of its group companies (each a "Wiley Company") or a society for whom a Wiley Company has exclusive publishing rights in relation to a particular journal (collectively WILEY"). By clicking "accept" in connection with completing this licensing transaction, you agree that the following terms and conditions apply to this transaction (along with the billing and payment terms and conditions established by the Copyright Clearance Center Inc., ("CCC's Billing and Payment terms and conditions"), at the time that you opened your Rightslink account (these are available at any time at http://myaccount.copyright.com)

Terms and Conditions

Appendix B: Chapter 2 Letter of Permission (Elsevier)

-----"Williams, Emma (ELS-OXF)" <E.Williams@elsevier.com> wrote: -----
To: <mfreeman@uwindsor.ca>
From: "Williams, Emma (ELS-OXF)" <E.Williams@elsevier.com>
Date: 12/22/2011 07:24AM
Cc: "Domke, Gregory K (ELS-NYC)" <g.domke@elsevier.com>, "S Bayard" <sbayard@verizon.net>, <anrjournal@hotmail.com>
Subject: RE: YAPNR license/reprint ?

Dear Ms Freeman,

Thank you for your email. This has been passed to me as a member of the Rights and Permissions team at Elsevier. Please address any future requests to reprint Elsevier materials to permissions@elsevier.com so that we may assist you in obtaining permission as quickly as possible. We hereby grant you permission to reprint the material below at no charge **in your thesis** subject to the following conditions:

1. If any part of the material to be used (for example, figures) has appeared in our publication with credit or acknowledgement to another source, permission must also be sought from that source. If such permission is not obtained then that material may not be included in your publication/copies.

2. Suitable acknowledgment to the source must be made, either as a footnote or in a reference list at the end of your publication, as follows:

"This article was published in Publication title, Vol number, Author(s), Title of article, Page Nos, Copyright Elsevier (or appropriate Society name) (Year)."

3. Your thesis may be submitted to your institution in either print or electronic form.

4. Reproduction of this material is confined to the purpose for which permission is hereby given.

5. This permission is granted for non-exclusive world **English** rights only. For other languages please reapply separately for each one required. Permission excludes use in an electronic form other than submission. Should you have a specific electronic project in mind please reapply for permission.

6. This includes permission for the Library and Archives of Canada to supply single copies, on demand, of the complete thesis. Should your thesis be published commercially, please reapply for permission.

Yours sincerely,
Emma
Emma Williams
:: Rights Associate :: Global Rights :: Elsevier
T +44 (0) 1865 843841 :: F +44 (0)1865 853333 e.williams@elsevier.com

Appendix C: Ethics Approval McMaster University

Hamilton Health Sciences

RESEARCH ETHICS BOARD

McMaster University

REB Office, 293 Wellington St. N., Suite 102, Hamilton, ON L8L 8E7
Telephone: 905-521-2100, Ext. 42013
Fax: 905-577-8378

February 9, 2011

PROJECT NUMBER: 11-009

PROJECT TITLE: Workforce Integration of New Nurses: Exploring Employment Goals, Expectations, and Intent to Migrate of Nursing Graduates In a Canadian Border City

PRINCIPAL INVESTIGATOR: Dr. Andrea Baumann

This will acknowledge receipt of your letter dated February 4, 2011 which enclosed a copy of the University of Windsor REB approval, the revised consents for the Survey and Follow-Up Interviews, the revised Letter of Information for Survey and the revised e-mail announcements for the above-named study. These issues were raised by the Research Ethics Board at their meeting held on January 18, 2011. Based on this additional information, we wish to advise your study has been given ***final*** approval from the full REB. The proposal, version 1.0 dated December 21, 2010, including the Letter of Information for Survey, version 2.0 dated February 4, 2011, the Consent for Participate in Research Interview, version 2.0 dated January 24, 2011, the Consent to Participate in Research, version 2.0 dated February 4, 2011, the Initial E-mail Invitation and Follow Up E-mails #1& #2 both version 2.0 dated February 4, 2011 and the Poster Announcements version 1.0 dated December 17, 2010 was found to be acceptable on both ethical and scientific grounds. ***Please note*** attached you will find the Information Letter/Consent Forms and recruitment posters with the REB approval affixed; all consent forms and recruitment materials used in this study must be copies of the attached materials.

We are pleased to issue final approval for the above-named study for a period of 12 months from the date of the REB meeting on January 18, 2011. Continuation beyond that date will require further review and renewal of REB approval. Any changes or revisions to the original submission must be submitted on an REB amendment form for review and approval by the Research Ethics Board.

The Hamilton Health Sciences/McMaster Health Sciences Research Ethics Board operates in compliance with and is constituted in accordance with the requirements of: The Tri-Council Policy Statement on Ethical Conduct of Research Involving Humans; The International Conference on Harmonization of Good Clinical Practices; Part C Division 5 of the Food and Drug Regulations of Health Canada; and the provisions of the Ontario Personal Health Information Protection Act 2004 and its applicable Regulations.

PLEASE QUOTE THE ABOVE-REFERENCE PROJECT NUMBER ON ALL FUTURE CORRESPONDENCE

Sincerely,

S. Salama

Suzette Salama PhD.,
Interim Chair, Research Ethics Board

Appendix D: Ethics Approval University of Windsor

University of Windsor
thinking forward

OFFICE OF THE RESEARCH ETHICS BOARD

Today's Date: February 03, 2011
Principal Investigator: Ms. Michelle Freeman/ Ms. Andrea Baumann
REB Number: 28940
Research Project Title: REB# 11-004: Workforce Integration of New Nurses: Exploring Employment Goals, Expectations, and Intent to Migrate of Nursing Graduates in a Canadian Border City
Clearance Date: February 1, 2011
Project End Date: October 31, 2011
Milestones:
Renewal Due-2011/11/30(Pending)

This is to inform you that the University of Windsor Research Ethics Board (REB), which is organized and operated according to the Tri-Council Policy Statement and the University of Windsor Guidelines for Research Involving Human Subjects, has granted approval to your research project on the date noted above. This approval is valid only until the Project End Date.

A Progress Report or Final Report is due by the date noted above. The REB may ask for monitoring information at some time during the project's approval period.

During the course of the research, no deviations from, or changes to, the protocol or consent form may be initiated without prior written approval from the REB. Minor change(s) in ongoing studies will be considered when submitted on the Request to Revise form.

Investigators must also report promptly to the REB:
a) changes increasing the risk to the participant(s) and/or affecting significantly the conduct of the study;
b) all adverse and unexpected experiences or events that are both serious and unexpected;
c) new information that may adversely affect the safety of the subjects or the conduct of the study.

Forms for submissions, notifications, or changes are available on the REB website: www.uwindsor.ca/reb. If your data is going to be used for another project, it is necessary to submit another application to the REB. We wish you every success in your research.

Pierre Boulos, Ph.D.
Chair, Research Ethics Board

This is an official document. Please retain the original in your files.

401 Sunset Avenue, Windsor, Ontario, Canada N9B 3P4 . tel: 519.253.3000

Appendix E: Poster Announcement of Survey

Nursing Students

Attention: Graduating Class of 2011

Invitation:

You will be offered an opportunity to participate in a voluntary on-line survey on your goals and expectations for your first nursing job and preferred work location.

When:

- February 2011 (after CRNEs) if you are an extern student
- April 2011 (before CRNEs)if you finish classes in April

Please watch for an email inviting you to participate!

Michelle Freeman,

PhD Nursing student, McMaster University

Appendix F: First Email Invitation to Participate in Survey

Subject: Survey on University of Windsor Nursing Students Graduating in June 2010

I am writing to invite you to participate in a survey that I am conducting on the goals, expectations and intent to migrate of fourth year baccalaureate nursing students (class of 2011) in a Canadian border city as they prepare for their first nursing job.

Your responses to this survey are very important. This is the first study of graduating nurses in a border city in Canada. The findings will be used to inform policy makers, professional and licensing bodies, and health care institutions of job factors which are important to attracting and retaining new nurses and this group's intentions to migrate for nursing jobs and may impact future nursing graduates.

This on-line survey takes approximately 20 – 30 minutes to complete. Please click on the link below to go to the survey web site (or copy and paste the survey link in your web browser) and then enter the username and password to begin the survey.

Survey link: http://www.uwindsor.ca/samplestudy

userID: **nurse** password: **grad2011**

Your participation in this survey is entirely voluntary and all of your responses will be kept confidential. You will be presented with a letter of consent before you begin the survey which will describe your rights as a participant in this study.

Should you have any further questions, please feel free to contact me at mfreeman@uwindsor.ca or 519-253-3000 Ext. 4812.

I appreciate your time and consideration in completing this survey. Your responses will provide important insights into the values and expectations of new nursing graduates and their intentions to work in nursing in Canada or other countries.

Many thanks,
Michelle Freeman
PhD Student, McMaster University

Appendix G: Second Email Invitation to Participate in Survey

Subject: Survey on University of Windsor Nursing Students Graduating in June 2010

You recently received an email inviting you to participate in a survey on the goals, expectations and intent to migrate of fourth year baccalaureate nursing students (class of 2011) in a Canadian border city as they prepare for their first nursing job.

If you have already completed the survey, thank you very much! I appreciate your participation.

If you have not yet completed the survey, I encourage you to complete it. Your responses to this survey are very important. It will take about 20 – 30 minutes to complete. Please click on the link below to go to the survey web site (or copy and paste the survey link in your web browser) and then enter the username and password to begin the survey.

Survey link: http://www.uwindsor.ca/samplestudy

userID: **nurse** password: **grad2011**

I appreciate your time and consideration in completing this survey. All responses are important in creating a picture of the values and expectations of new nursing graduates and their intentions to work in nursing in Canada or other countries.

Should you have any further questions, please feel free to contact me at mfreeman@uwindsor.ca or 519-253-3000 Ext. 4812.

Many thanks,
Michelle Freeman
PhD Student, McMaster University

Appendix H: Final Email Invitation to Participate in Survey

Subject:

Please Complete the Survey on U of W Nursing Students Graduating in June 2011

This is a busy time of the year for the nursing students at the University of Windsor who will be graduating in June 2011. I am hoping you will be able to give about 20 to 30 minutes of your time to complete the above survey. I am hoping to collect information on the goals, expectations and intent to migrate of the Nursing Class of 2011.

If you have already completed the survey, **thank you very much**! I appreciate your participation.

If you have not yet completed the survey, I urge you to complete it. I plan to close the study next week and wanted to email everyone to ensure those who have not yet participated have a chance to do so.

Please click on the link below to go to the survey web site (or copy and paste the survey link in your web browser) and then enter the username and password to begin the survey.

Survey link: http://www.uwindsor.ca/samplestudy

userID: **nurse** password: **grad2011**

I appreciate your time and consideration in completing this survey. All responses from the U of W Nursing Class of 2011 are important in providing information on the values and expectations of new nursing graduates and their intentions to work in nursing in Canada or other countries.

Should you have any further questions, please feel free to contact me at mfreeman@uwindsor.ca or 519-253-3000 Ext. 4812.

Many thanks,
Michelle Freeman
PhD Student, McMaster University

Appendix I: Reminder Letter to Participate in Survey

If you have already completed this survey thank you and please disregard this letter. Because the survey is anonymous I am unable to exclude anyone from this follow-up reminder.

Subject: Survey- University of Windsor Nursing Students Graduating in June 2011

Dear _____,

I am writing to invite you to participate in a survey that I am conducting on the goals, expectations and intent to migrate of fourth year baccalaureate nursing students (class of 2011) at the University of Windsor as they prepare for their first nursing job.

If you have not responded to this survey, please read the information below and then use the link below to take the survey. The response rate is low for your class of nursing externs and your input in this study is very important. This is the first study of graduating nurses in a border city in Canada.

This on-line survey takes approximately 20 – 30 minutes to complete. First type this survey link into your web browser. Second enter this username and password.

Survey link: https://web2.uwindsor.ca/nursing/surveys/mfreeman/workforce/info.php

username: nurse **password: grad2011**

Your participation in this survey is entirely voluntary and all of your responses will be kept confidential. After completing the survey, you will also be invited to enter a draw for one of three Devonshire dollars gift certificates of $150, $100 and $75 (CDN).

Should you have any further questions, please feel free to contact me at mfreeman@uwindsor.ca or 519-253-3000 Ext. 4812.

Thank you for completing this survey. Your responses will provide important insights into the values and expectations of new nursing graduates and their intentions to work in nursing in Canada or other countries.

Sincerely,

Michelle Freeman
PhD Student, McMaster University

Appendix J: Reminder Post Card to Participate in Survey

If you have already completed this survey thank you and please disregard this letter.

Because the survey is anonymous I am unable to exclude anyone from this follow-up reminder.

Dear _____,

If you have not yet responded to the survey on nursing students (class of 2011) at the University of Windsor, please read this information and respond right away. The response rate for your class is low and your input in this study is very important.

This on-line survey takes approximately 20 – 30 minutes. First type this survey link into your web browser. Second enter this username and password.

Survey link:
https://web2.uwindsor.ca/nursing/surveys/mfreeman/workforce/info.php

username: **nurse** **password: grad2011**

After completing the survey, you will also be invited to enter a draw for one of three Devonshire dollars gift certificates of $150, $100 and $75 (CDN).

Thank you in advance for completing this survey **before it closes on April 28th, 2011.** Should you have any further questions, please feel free to contact me at mfreeman@uwindsor.ca or 519-253-3000 Ext. 4812.

Michelle Freeman
PhD Student, McMaster University

Appendix K: Information Letter, Consent, and Web-based Survey

**Exploring Integration of New Nurses into the Workforce:
A Study of Employment Goals, Expectations and Intent to Migrate of Nursing Students in a Canadian Border City**

Letter of Information

My name is Michelle Freeman. I am a PhD student at McMaster University and am conducting a study on nursing students who are graduating from the University of Windsor in June 2011.

As part of my study, I am inviting you to complete an online survey. The study is called: "Exploring Workforce Integration of New Nurses: A Study of Employment Goals, Expectations and Intent to Migrate of Nursing Students in a Canadian Border City".

The purpose of my study is to explore the goals, expectations and intent to migrate of fourth year baccalaureate nursing students (class of 2011) in a Canadian border city as they prepare for their first nursing job. In addition, the research will describe the demographic characteristics of this group of new nurses.

This survey consists of a series of questions. **There are no right or wrong answers.** Only **one response** is required for each question. I am interested in **your opinion** about job factors that are important to you and how confident you feel that a job in Canada or in another country (if you are thinking of nursing jobs in other countries) will meet your expectations.

This questionnaire will take approximately 20-30 minutes to complete.

After completing the survey, you will be invited to enter a draw for one of three Devonshire dollars gift certificates of $150, $100 and $75 (CDN). The e-mail you enter for the draw **will not** be tied to the data that you provide on the survey. The survey data will be anonymous.

If you wish to participate, please enter the generic userID and password provided at the following URL:

userID: **nurse** password: **grad2011**

http://www.uwindsor.ca/samplestudy

Please contact me if you have any questions. I can be reached by e-mail at mfreeman@uwindsor.ca or by phone at 519-253-3000 Ext. 4812.

Your time and thoughtful responses will contribute to this study, and are greatly appreciated. Thank you very much for your participation.

Proceed to the Letter of Consent

CONSENT TO PARTICIPATE IN RESEARCH

Title of Study: Exploring Workforce Integration of New Nurses: A Study of Employment Goals, Expectations and Intent to Migrate of Nursing Students in a Canadian Border City

You are asked to participate in a research study conducted by Michelle Freeman, a PhD student at McMaster University. The results of the study will be used in partial fulfilment of the Doctor of Philosophy of Nursing.

If you agree to participate in the study, please click "I consent to Participate" at the bottom of the page and follow the instructions. If you have any questions or concerns about the research, please feel to contact Michelle Freeman at 519-253-3000 Ext. 4812 or mfreeman@uwindsor.ca. or her supervisor Dr. Andrea Baumann at 905-525-9140 Ext. 22581 or baumanna@mcmaster.ca.

Purpose of the Study
The purpose of this survey is to explore the goals, expectations and intent to migrate of fourth year baccalaureate nursing students (class of 2011) in a Canadian border city as they prepare for their first nursing job. In addition, the research will describe the demographic characteristics of this group.

Procedures
If you volunteer to participate in this study, you will be asked to complete a survey online. The survey will include questions about you, your preferred work location, the importance of certain job factors to you and how confident you are in achieving these factors in your first job in nursing.

This survey takes approximately 20-30 minutes to complete, although individual completion times may vary depending on your computer system. You may stop and save your survey responses at any point and resume where you left off at any time before you submit your completed survey. You may complete the survey at a location of your choice. The completed survey will be sent to researchers with your IP address as the only other identifying information attached to your survey.

Risks
The study carries no actual or potential physical risk. Social and psychological risks associated with identity disclosure are minimal. Efforts were made to minimize this risk through coding so that responses cannot be linked to respondents except by the respondents themselves.

Benefits and compensation
There are no direct benefits to the individuals participating in this study. The findings will be used to inform policy makers, professional and licensing bodies and health care institutions of job factors which are important to attracting and retaining new nurses and this group's intentions to migrate for nursing jobs and may impact future nursing graduates.

By participating you will be eligible to enter your name into a draw for one of three Devonshire dollars gift certificates of $150, $100 and $75 (CDN). You will be given the choice of entering this draw after completing and submitting your survey.

Confidentiality and Anonymity
Confidentiality and your anonymity are ensured and your survey responses will not be traced back to you. All data analyses and reporting of the study results will be group based and your individual responses will not be analyzed or reported separately.

To ensure the confidentiality of your responses, you will be assigned a unique identifying code that will be only identifiable by you (MM and YY of your birth date, last three university ID numbers, the first initial of your mother's name, and the last letter of your given name). This code will allow matching of the survey that you complete with any future follow up studies without allowing the investigators to know who you are. Several steps will be taken to ensure the confidentiality of survey data you submit. All incoming surveys will travel through a secure third party electronic server that strips the sender's e-mail address before delivery to protect the participants' anonymity. The "stripping" is done mechanically and involves the deletion of email address information that would normally be attached to a survey response that is received electronically. The date and time of submission and the IP address will be the only additional information attached to the surveys. Such information is used solely for the purpose of excluding duplicate submissions. Should you choose to enter the draw, the email address you provide will be used solely for the purpose of the draw and will be deleted after the draw is complete.

Only the researcher, researcher assistant, and the researcher's committee directly associated with this study will have access to the data for the purposes of analysis and conducting the study. Any reports of this study made available to participants or sent to a scientific journal for publication will contain information that reflects group results and not information about specific individuals. Data will be retained for a period of 10 years after publication in a secure place, after which time it will be disposed of in a secure manner (e.g. shredded or electronically deleted).

The principal investigator will only have access to your name and e-mail address to contact you if you win the draw.

Results of research.
The study results will be available by October 31, 2011 on the Research Ethics Board website under Study Results (http://www.uwindsor/reb).

Participation and withdrawal.
Your participation in the study is completely voluntary and you may withdraw at any point. If you volunteer to be in this study, you may withdraw at any time up to the point before you submit your electronic survey responses without consequences of any kind. You may also refuse to answer any questions you don't want to answer and still remain in the study.

Rights of research subjects
You may withdraw your consent at any time and discontinue participation without penalty as described above.
This study has been reviewed and received ethics clearance through McMaster University Research Ethics Board and the University of Windsor Research Ethics Board.

If you have questions regarding your rights as a research subject, please contact:
The Research Ethics Coordinator, University of Windsor, Windsor, Ontario, N9B 3P4; telephone: 519-253-3000 ext. 3916; e-mail: reb@uwindsor.ca.
Office of the Chair of the Hamilton Health Sciences/Faculty of Health Sciences Research Ethics Board at (905) 521-2100, Ext. 42013.

Subsequent use of data
This data may be used in subsequent studies. If used in subsequent studies, your confidentiality and anonymity will be ensured.

If you consent to participate in the research project, you may proceed to the questionnaire.

When prompted, please use the following generic userID and password.

userID**: nurse**
password: **grad2011**

This will ensure your anonymity. The survey requests that you create your own personal password. This will allow you to save your answers and return to complete the survey at a later date if you choose not to complete it in one sitting. Follow the link 'Return to Survey' if you have already created your personal password.

It is recommended that you print out a copy of this letter of information for your records. (ATTACHED PDF COPY of CONSENT)

Following the link below indicates that you voluntarily consent to participate in the research project and you consent to the subsequent use of the data.

I consent to Participate

If you would like to participate but want to complete the questionnaire at another time, please come back at a later time to consent to participate and enter the generic userID and password.

I do not consent to Participate

Section 1: Your First Job in Nursing Following Graduation
The following questions are about your **first job** in nursing following graduation. Please read each item and choose **one** response from the list provided.

1. If you had your **choice** of work location, where would your first job in nursing be?
2. ☐ Windsor Essex, Sarnia, or Lambton
   ☐ Michigan (e.g., Detroit, Port Huron)
   ☐ Another city/province in Canada. Please identify city/province:_____
   ☐ Another U.S. location or another country. Please identify city/country:_____

3. What are your **current plans** for your first job in nursing? This refers to your plans. You do not need to have received a job offer to identify your plans.
   ☐Live and work in the Windsor Essex, Sarnia or Lambton area.
   ☐Live in the Windsor Essex, Sarnia or Lambton area but work in Michigan (e.g., Detroit; Port Huron)
   ☐Move to another city/province in Canada. Please identify:_____
   ☐Move to another country. Please identify:_____
   ☐ I have not made any plans for my first nursing job.

4. Which of the following options best describes your **current plans** for your first job in nursing?
   ☐ I am making this decision freely. It is my choice.
   ☐ I am making this decision because of A lack of jobs in my preferred work location.
   ☐ I am making this decision because of another reason. Please specify:_____
   ☐ I have no current plans for my first job so this does not apply to me.

5. For your first nursing job, are you considering working **outside** of Canada?
   ☐ No. I have never considered working outside Canada. Participant taken to Section 3.
   ☐ Yes. I am considering working outside of Canada. Participant taken to Section 2
   ☐ Yes. I have accepted a job outside Canada. Participant taken to Section 2

Section 2: Job Values and Expectations: Working in Canada or Other Countries
The following questions are organized into eight sections.
Please rate:

- How important each job factor is to you.
- How confident you are that you will achieve your goals whether your **first nursing job** is in Canada or in another country**.**

Value Scale Choices	**Expectancy Scale Choices**
1 very unimportant	1= Not confident at all.
2 unimportant	2= Slightly confident. I am about 25% certain.
3 neither important nor unimportant	3= Somewhat confident. I am about 50% certain.
4 important	4= Very confident. I am about 75% certain
5 very important	5= Extremely confident. I am about 100% certain.

Economic Rewards

1. How important is getting a full- time job in nursing after you graduate?
2. How confident are you that you will get a full-time job in nursing in Canada?
3. How confident are you that you will get a full-time job in nursing in another country?
4. How important is salary in your choice of nursing jobs?
5. How confident are you that you will be offered the salary you want in Canada?
6. How confident are you that you will be offered the salary you want in another country?
7. How important are benefits (such as dental care, extended health coverage and prescription coverage) in your choice of nursing jobs?
8. How confident are you that your first nursing job in Canada will offer benefits?
9. How confident are you that your first nursing job in another country will offer benefits?

Professional Development

10. How important is a job that will increase your nursing competencies and improve your ability to compete for future nursing jobs?
11. How confident are you that your first nursing job in Canada will increase your nursing competencies and improve your ability to compete for future nursing jobs?
12. How confident are you that your first nursing job in another country will increase your nursing competencies and improve your ability to compete for future nursing jobs?
13. How important are professional development opportunities (such as tuition reimbursement and continuing education) in your first nursing job?
14. How confident are you that your first nursing job in Canada will offer professional development opportunities?
15. How confident are you that your first nursing job in another country will offer professional development opportunities?

Healthy Work Environment

16. How important is a job that supports the health, safety, and well-being of nurses?
17. How confident are you that your first nursing job in Canada will support the health, safety, and well-being of nurses?
18. How confident are you that your first nursing job in another country will support the health, safety, and well-being of nurses?

19. How important is a job that is focused on supporting nurses in providing quality patient care?
20. How confident are you that your first nursing job in Canada will support nurses in providing quality patient care?
21. How confident are you that your first nursing job in another country will support nurses in providing quality patient care?
22. How important is a job that has staffing levels that are appropriate for the type of patients and their acuity level?
23. How confident are you that your first nursing job in Canada will provide staffing levels that are appropriate for the type of patients and their acuity level?
24. How confident are you that your first nursing job in another country will provide staffing levels that are appropriate for the type of patients and their acuity level?

25. How important is a job that has visible nurse leaders who advocate for nurses and nursing practice?
26. How confident are you that your first nursing job in Canada will have visible nurse leaders who advocate for nurses and nursing practice?
27. How confident are you that your first nursing job in another country will have visible nurse leaders who advocate for nurses and nursing practice?
28. How important is a job that has strong nursing leadership demonstrated by an environment of open communication and trust, and where your contributions are valued?
29. How confident are you that your first nursing job in Canada will have strong nursing leadership demonstrated by an environment of open communication and trust, and where your contributions are valued?
30. How confident are you that your first nursing job in another country will have strong nursing leadership demonstrated by an environment of open communication and trust, and where your contributions are valued?
31. How important is it that you have a good working relationship with your nurse manager?
32. How confident are you that you will have a good working relationship with your nurse manager in your first nursing job in Canada?
33. How confident are you that you will have a good working relationship with your nurse manager in your first nursing job in another country?
34. How important is it that your job provides an orientation program that is of sufficient length to help you in your transition to independent practice?
35. How confident are you that your first nursing job in Canada will provide an orientation program that is of sufficient length to help you in your transition to independent practice?
36. How confident are you that your first nursing job in another country will provide an orientation program that is of sufficient length to help you in your transition to independent practice?
37. How important is a job that supports work life balance by offering flexible schedules and/or self scheduling?
38. How confident are you that your first nursing job in Canada will support work life balance by offering flexible schedules and/or self scheduling?

39. How confident are you that your first nursing job in another country will support work life balance by offering flexible schedules and/or self scheduling?

Safe Living and Working Environment (Personal safety)

40. How important is it that your job is **located** in a safe area (for example, one that has a low crime rate)?
41. How confident are you that your first nursing job in Canada will be **located** in a safe area?
42. How confident are you that your first nursing job in another country will be **located** in a safe area?
43. How important is it that your job allows you **to live** in a safe area (for example, one that has a low crime rate)?
44. How confident are you that your first nursing job in Canada will allow you **to live** in a safe area?
45. How confident are you that your first nursing job in another country will allow you **to live** in a safe area?
46. How important is finding a job with zero tolerance for workplace violence (such as harassment, bullying and intimidation)?
47. How confident are you that your first nursing job in Canada will have zero tolerance for workplace violence (such as harassment, bullying and intimidation)?
48. How confident are you that your first nursing job in another country will have zero tolerance for workplace violence (such as harassment, bullying and intimidation)?

Opportunities for Adventure

49. How important is finding a job that offers a new adventure, such as the opportunity to live in a new place (city or country)?
50. How confident are you that your first nursing job in Canada will offer a new adventure, such as the opportunity to live in a new place (city or country)?
51. How confident are you that your first nursing job in another country will offer a new adventure, such as the opportunity to live in a new place (city or country)?
52. How important is finding a job in a location that offers a new adventure, such as the opportunity to work in an unfamiliar health setting?
53. How confident are you that your first nursing job in Canada will offer a new adventure, such as the opportunity to work in an unfamiliar health care setting?
54. How confident are you that your first nursing job in another country will offer adventure, such as the opportunity to work in an unfamiliar health care system?

Autonomy in Choice of Workplace

55. How important is finding a nursing job in your preferred job sector (such as acute care, home care)?
56. How confident are you that your first nursing job in Canada will allow you to work in your preferred job sector (such as acute care, home care)?
57. How confident are you that your first nursing job in another country will allow you to work in your preferred job sector (such as acute care, home care)?
58. How important is being able to work in your preferred specialty (such as medicine, intensive care, emergency department, etc)?

59. How confident are you that your first nursing job in Canada will allow you to work in your preferred specialty (such as medicine, intensive care, emergency department, etc)?
60. How confident are you that your first nursing job in another country will allow you to work in your preferred specialty (such as medicine, intensive care, emergency department, etc)?

Support Network

61. How important is finding a job that allows you to live close to your family?
62. How confident are you that your first nursing job in Canada will allow you to live close to your family?
63. How confident are you that your first nursing job in another country will allow you to live close to your family?
64. How important is finding a job that allows you to live close to your friends?
65. How confident are you that your first nursing job in Canada will allow you to live close to your friends?
66. How confident are you that your first nursing job in another country will allow you to live close to your friends?

Support of Ethical Practice

67. How important is finding a job that allows you to question practices that are unsafe, and/or unethical?
68. How confident are you that your first nursing job in Canada will allow you to question practices that are unsafe, and/or unethical?
69. How confident are you that your first nursing job in another country will allow you to question practices that are unsafe, and/or unethical?
70. How important is finding a job that encourages and supports the reporting of errors (such as medication errors)?
71. How confident are you that your first nursing job in Canada will support the reporting of errors (such as medication errors)?
72. How confident are you that your first nursing job in another country will support the reporting of errors (such as medication errors)?
73. How important is finding a job that will support you to speak up when you believe a patient is at risk of harm (for example questioning an unclear medication order)?
74. How confident are you that your first nursing job in Canada will support you to speak up when you believe a patient is at risk of harm (for example questioning an unclear medication order)?
75. How confident are you that your first nursing job in another country will support you to speak up when you believe a patient is at risk of harm (for example questioning an unclear medication order)?

Section 3: Job Values and Expectations: Working in Canada
The following questions are organized into eight sections.
Please rate:

- How important each job factor is to you.
- How confident you are that you will achieve your goals in your **first nursing job** in Canada**.**

Value Scale Choices	**Expectancy Scale Choices**
1 very unimportant	1= Not confident at all.
2 unimportant	2= Slightly confident. I am about 25% certain.
3 neither important nor unimportant	3= Somewhat confident. I am about 50% certain.
4 important	4= Very confident. I am about 75% certain
5 very important	5= Extremely confident. I am about 100% certain.

Economic Rewards

1. How important is getting a full- time job in nursing after you graduate? (insert value scale choices)
2. How confident are you that you will get a full-time job in nursing in Canada? (insert expectancy scale choices)

3. How important is salary in your choice of nursing jobs?
4. How confident are you that you will be offered the salary you want in Canada?

5. How important are benefits (such as dental care, extended health coverage and prescription coverage) in your choice of nursing jobs?
6. How confident are you that your first nursing job in Canada will offer benefits?

Professional Development

7. How important is a job that will increase your nursing competencies and improve your ability to compete for future nursing jobs?
8. How confident are you that your first nursing job in Canada will increase your nursing competencies and improve your ability to compete for future nursing jobs?

9. How important are professional development opportunities (such as tuition reimbursement and continuing education) in your first nursing job?
10. How confident are you that your first nursing job in Canada will offer professional development opportunities?

Healthy Work Environment

11. How important is a job that supports the health, safety, and well-being of nurses?
12. How confident are you that your first nursing job in Canada will support the health, safety, and well-being of nurses?

13. How important is a healthy work environment that is focused on supporting nurses in providing quality patient care?
14. How confident are you that your first nursing job in Canada will provide a healthy work environment that is focused on supporting nurses in providing quality patient care?

15. How important is a job that has staffing levels that are appropriate for the type of patients and their acuity level?
16. How confident are you that your first nursing job in Canada will provide staffing levels that are appropriate for the type of patients and their acuity level?

17. How important is a job that has visible nurse leaders who advocate for nurses and nursing practice?
18. How confident are you that your first nursing job in Canada will have visible nurse leaders who advocate for nurses and nursing practice?

19. How important is a job that has strong nursing leadership demonstrated by an environment of open communication and trust, and where your contributions are valued?
20. How confident are you that your first nursing job in Canada will have strong nursing leadership demonstrated by an environment of open communication and trust, and where your contributions are valued?

21. How important is it that you have a good working relationship with your nurse manager?
22. How confident are you that you will have a good working relationship with your nurse manager in your first nursing job in Canada?
23. How important is it that your job provides an orientation program that is of sufficient length to help you in your transition to independent practice?
24. How confident are you that your first nursing job in Canada will provide an orientation program that is of sufficient length to help you in your transition to independent practice?

25. How important is a job that supports work life balance by offering flexible schedules and/or self scheduling?
26. How confident are you that your first nursing job in Canada will support work life balance by offering flexible schedules and/or self scheduling?

Safe Living and Working Environment (Personal safety)

27. How important is it that your job is **located** in a safe area (for example, one that has a low crime rate)?
28. How confident are you that your first nursing job in Canada be **located** in a safe area?
29. How important is it that your job allows you **to live** in a safe area (for example, one that has a low crime rate)?

30. How confident are you that your first nursing job in Canada will allow you **to live** in a safe area?
31. How important is finding a job with zero tolerance for workplace violence (such as harassment, bullying and intimidation)?
32. How confident are you that your first nursing job in Canada will have zero tolerance for workplace violence (such as harassment, bullying and intimidation)?

Opportunities for Adventure

33. How important is finding a job that offers a new adventure, such as the opportunity to live in a new place (city or country)?
34. How confident are you that your first nursing job in Canada will offer a new adventure, such as the opportunity to live in a new place (city or country)?

35. How important is finding a job in a location that offers a new adventure, such as the opportunity to work in an unfamiliar health setting?
36. How confident are you that your first nursing job in Canada will offer a new adventure, such as the opportunity to work in an unfamiliar health care setting?

Autonomy in Choice of Workplace

37. How important is finding a nursing job in your preferred job sector (such as acute care, home care)?
38. How confident are you that your first nursing job in Canada will allow you to work in your preferred job sector (such as acute care, home care)?

39. How important is being able to work in your preferred specialty (such as medicine, intensive care, emergency department, etc)?
40. How confident are you that your first nursing job in Canada will allow you to work in your preferred specialty (such as medicine, intensive care, emergency department, etc)?

Support Network

41. How important is finding a job that allows you to live close to your family?
42. How confident are you that your first nursing job in Canada will allow you to live close to your family?

43. How important is finding a job that allows you to live close to your friends?
44. How confident are you that your first nursing job in Canada will allow you to live close to your friends?

Support of Ethical Practice

45. How important is finding a job that allows you to question practices that are unsafe, and/or unethical?
46. How confident are you that your first nursing job in Canada will allow you to question practices that are unsafe, and/or unethical?
47. How important is finding a job that encourages and supports the reporting of errors (such as medication errors)?
48. How confident are you that your first nursing job in Canada will encourage and support the reporting of errors (such as medication errors)?

49. How important is finding a job that will support you to speak up when you believe a patient is at risk of harm (for example questioning an unclear medication order)?
50. How confident are you that your first nursing job in Canada will support you to speak up when you believe a patient is at risk of harm (for example questioning an unclear medication order)?

Section 4: Demographics and Work Place Preferences

The following questions will help to describe the profile of new graduate nurses in this region.

1. Did you already have a university degree and/or college diploma in another discipline before you entered this nursing program?
   Yes☐
   No☐

2. The following best describes me:
   ☐Single
   ☐Single with child/children
   ☐Married/common law/ partnered, no children
   ☐Married/common law/ partnered, with child/children
   ☐Divorced/Separated/Widowed, no children
   ☐Divorced/Separated/Widowed, with child/children

3. Do you have a **relative or friend** who works in Michigan?
   Yes☐
   No☐

4. Do you have a relative or friend who works as a **nurse** in Michigan?
   Yes☐
   No☐

5. I was born in Canada
   Yes☐
   No☐ If no, in what year did you migrate to Canada_____
   What was your city and country of birth?_____

6. I started this nursing program at:
   ☐University of Windsor
   ☐St. Clair College Windsor campus
   ☐St. Clair College, Thames campus
   ☐St. Clair College, Lambton campus
   ☐Other Please specify:_____

7. Before entering this nursing program I lived in:

   ☐Windsor-Essex area
   ☐Sarnia area
   ☐Chatham area.
   ☐Other. Please specify: _____

8. When were your classes finished?
   ☐ Finished classes in December 2010 (extern student)
   ☐ Finished classes in April 2011

9. After graduation, I prefer to work in nursing:
   ☐Full- time (37.5 to 40 hours each week)
   ☐Part- time (less than 32 hours per week)
   ☐Casual (a few days per month)
   ☐ Other Please explain:_____

10. For my first job in nursing, if I had my choice, I would work in the following **job sector**:
    ☐Acute Care Hospital (Teaching hospital)
    ☐Acute Care Hospital (Non-teaching hospital)
    ☐Addiction and Mental Health Centre/Psychiatric Hospital
    ☐Complex Continuing Care/Rehab Hospital
    ☐Community Care Access Centres
    ☐Community Health Centre
    ☐Community Mental Health Program
    ☐Public Health Unit
    ☐Hospice
    ☐Long Term Care Facility
    ☐Retirement Home
    ☐Homes for the Aged
    ☐Homecare agency
    ☐Other: Please specify_____

11. For my first job in nursing, if I had my choice, I would work in the following **speciality area**:
    ☐Adult medicine/surgery
    ☐Cardiac Care Unit (CCU)
    ☐Community agency
    ☐Emergency Department (ED)
    ☐Geriatrics
    ☐Home Care
    ☐Intensive Care Unit (ICU)
    ☐Mental Health
    ☐Paediatrics
    ☐Obstetrics (Labour and delivery; post partum)

☐Operating Room
☐Palliative/Hospice
☐Other: Please specify:_____

12. What is your gender?
    Female ☐
    Male ☐
13. What year were you born? _____

Thank you very much for participating in my research and completing this survey. (END OF SURVEY)

Appendix L: Email Invitation to Participate in Interview

Invitation to Participate in Interview

You are being invited to participate in an interview because you are a member of the nursing graduating class of 2011 at the University of Windsor, you participated in an on-line survey as part of the same research project, and expressed an interest in participating in interviews.

Follow- up interviews will be conducted in **late June and July 2011** to explore questions which arose from the analysis of the surveys. The interview will take **20 to 30 minutes.**

The questions you will be asked include:

What are your plans for your first job in nursing after you graduate?
Can you explain your decision making in arriving at these plans? What were the influencing factors?
What job factors were most important in influencing your decision?

Your participation in the study is completely **voluntary** and you may **withdraw at any point**. You may also refuse to answer any questions you do not want to answer and still remain in the study. Your rights as a research participant will be explained to you before you participate in the interview.

If you are interested in participating in an interview, please respond to this email or contact me at 519-253-3000 Ext. 4812 and provide a contact number where I can reach you. We will arrange a date to meet when you are available.

I appreciate your time and consideration in participating in my research. Your responses will provide important insights into the values and expectations of new nursing graduates and their intentions to work as nurses in Canada or other countries.

Many thanks,
Michelle Freeman
PhD Student, McMaster University

Appendix M: Consent to Participate in Interview

CONSENT TO PARTICIPATE IN INTERVIEW

Title of Study: Workforce Integration of New Nurses: Exploring Employment Goals, Expectations, and Intent to Migrate of Nursing Graduates in a Canadian Border City

You are asked to participate in a research study conducted by Michelle Freeman, a PhD student at McMaster University. The results of the study will be used in partial fulfilment of the Doctor of Philosophy of Nursing degree.

What will be expected of you as a participant?
You are being invited to participate in this research study because you are a member of the nursing graduating class of 2011 at the University of Windsor; you participated in an on-line survey as part of the same research project, and expressed an interest in participating in interviews. If you agree to participate in this study, you will be asked to provide input through participation in an interview. The interview will take 20 to 30 minutes. You will be asked to sign this consent form after reading the information.

What is the purpose of the research?
The purpose of the research is to explore the goals, expectations and intent to migrate of fourth year baccalaureate nursing students (class of 2011) in a Canadian border city as they prepare for their first nursing job. In addition, the research will describe the demographic characteristics of this group. Follow- up interviews are being conducted to explore questions which arose from the analysis of the surveys.

What are the risks?
The study carries no actual or potential physical risk. Social and psychological risks associated with identity disclosure are minimal. Efforts were made to minimize this risk through coding so that responses cannot be linked to respondents.

What are the benefits to you and society?
There are no direct benefits to the individuals participating in this study. The findings will be used to inform policy makers, professional and licensing bodies,

and health care institutions of job factors which are important to attracting and retaining new nurses and this group's intentions to migrate for nursing jobs. The findings may impact future nursing graduates.

Confidentiality
All recording and subsequent hard copy transcriptions will be stored in a locked cabinet and data kept in password-protected electronic files. Your answers and comments are not linked to personalized information. Only aggregate data without personal/organizational identifiers will be shared publicly. Hard copy transcriptions will be destroyed and electronic data will be erased from record after ten years.

If you have any questions about the research, who can you contact?
If you have any questions or concerns about the research, please feel to contact Michelle Freeman at 519-253-3000 Ext. 4812 or mfreeman@uwindsor.ca. or Dr. Andrea Baumann Supervisor at 905-525-9140 Ext. 22581 or baumanna@mcmaster.ca.

Where will you find the results of the research?
The study results will be available by October 31, 2011 on the Research Ethics Board website at the University of Windsor under Study Results (http://www.uwindsor/reb).

What are my rights as a participant?
Your participation in the study is completely **voluntary** and you may **withdraw at any point**. You may also refuse to answer any questions you do not wish to answer and still remain in the study.

Subsequent use of data
This data may be used in subsequent studies. If used in subsequent studies, your confidentiality and anonymity will be ensured.

CONSENT STATEMENT TO PARTICIPATE
I have read the preceding information thoroughly. I understand whom to contact if I have any questions. I agree to participate in this study in a key informant interview to share my feedback and experience. I know that the interview will be audio taped. I understand that all information gathered for this study will be confidential and there will be no personal identifiers in the publications and reports.

I will receive a ***signed*** copy of this form.

Name of Participant	Signature	Date

Person Obtaining Consent	Signature	Date

If I have questions regarding my rights as a research subject, I understand that I may contact:

The Research Ethics Coordinator, University of Windsor, Windsor, Ontario, N9B 3P4; telephone: 519-253-3000 ext. 3916; e-mail: reb@uwindsor.ca.

Office of the Chair of the Hamilton Health Sciences/Faculty of Health Sciences Research Ethics Board at (905) 521-2100, Ext. 42013.

Appendix N: Interview Guide for Semi-Structured Interviews

Workforce Integration of New Nurses: Exploring Employment Goals, Expectations, and Intent to Migrate of Nursing Graduates in a Canadian Border City

Interview Guide for Semi-Structured Interviews

1. What are your plans for your first job in nursing after you graduate?
2. Can you explain your decision making in arriving at these plans? What were the influencing factors?
3. What job factors were most important in influencing your decision? (See attached list)
4. Do you have any other insights to share? Any additional insights about the goals, values and expectations of new graduate nurses as they prepare for their first job?

Job Factors	Most important in your decision-making for first job? Please rate top 5.
Full- time job	
Salary	
Benefits	
Increase nursing competencies and improve your ability to compete for future nursing jobs	
Professional development opportunities (such as tuition reimbursement and continuing education)	
Supports health, safety, and well-being of nurses	
Supports provision of quality care	
Appropriate staffing levels for the type of patients and their acuity level	
Visible nurse leaders who advocate for nurses and nursing practice	
Strong nursing leadership demonstrated by an environment of open communication and trust, and where your contributions are valued	
Good working relationship with nurse manager	
Orientation of sufficient length to help you in your transition to independent practice	
Scheduling supporting work life balance	
Allows you **to work** in a safe area	
Allows you **to live** in safe area	
Zero tolerance for workplace violence	
Life adventure- live in a new place	
Work Adventure- allow you to work in an unfamiliar health setting	
Preferred job sector	
Preferred specialty	
Allow you to live close to family	
Allow you to live close to friends	
Allows questioning of unsafe/ unethical practices	
Supports error reporting	
Supports speaking up when patient is at risk of harm	

Appendix O: Thank You Letter for Interview Participants

Subject: Thank You for Your Participation in Research Interview

Dear

I am writing to thank you for participating in the follow-up interviews as part of my research study on the goals, expectations and intent to migrate of fourth year baccalaureate nursing students (class of 2011) in a Canadian border city as they prepare for their first nursing job.

Your participation in these interviews was very important. This is the first study of graduating nurses in a border city in Canada. The findings will be used to inform policy makers, professional and licensing bodies, and health care institutions of job factors which are important to attracting and retaining new nurses and this group's intentions to migrate for nursing jobs.

I appreciate the time you devoted to my research. I have enclosed a $25 gift card as a token of my appreciation.

Wishing you all the best in your nursing career.

Sincerely

Michelle Freeman
PhD Student, McMaster University

Appendix P: Outline of Explanatory Sequential Mixed Methods Design

Phase	Procedure
Survey development and participant recruitment	Survey developed based on value-expectancy framework adapted for new graduate nursing population Reliability, validity and pre-testing completed Non-probability, convenience sample Emails and mailings for recruitment sent to students (N= 281)
Quantitative Data Collection	Self-administered web-based survey Response rate 40.9% (N= 115)
Quantitative Data Analysis	Data screening Descriptive statistics Chi square test of independence Paired samples t-test Independent samples t-test Value Expectancy Scores Logistic regression
Interview Protocol and participant recruitment	Non-probability, convenience sample Participants volunteering for follow-up interviews contacted (n= 37; 32.2%); 10 responded and agreed to be interviewed Interview questions and sequence finalized
Qualitative Data Collection	Individual semi-structured interviews with 10 participants, 7 conducted in person; 3 by telephone Transcription of recoded data verbatim
Qualitative Data Analysis	Directed qualitative content analysis focused on addressing specific questions (plans for first job; factors influencing decision making; job factors identified as most important) Data reduction, data display, interpretation of data and thematic summary
Integration of Quantitative and Qualitative Results	Interpretation and explanation of quantitative and qualitative results in Discussion