Canadian Nurse Graduates Considering Migrating Abroad for Work: Are Their Expectations Being Met in Canada?

Michelle Freeman, Lizette Beaulieu, Jamie Crawley

An RN credential has been called "a ticket to the world." Canadian RNs have been active participants in migration, especially to the United States. In an increasingly globally oriented world, Canadian nurse graduates have many employment options. The purpose of this study was to explore the job values and expectations of baccalaureate nursing students who indicated they were considering migrating for work abroad for their first job and to explore their confidence in having these values met in Canada compared to another country. This was a quantitative study guided by the Value-Expectancy Framework. Data were collected through a Web-based self-report survey and analyzed using descriptive statistics for sample characteristics and t tests for comparison. Nonprobability convenience sampling of graduating baccalaureate nursing students from a Canadian border region was used. Of 130 respondents, 92 (70.8%) indicated that they were considering migrating from Canada for work. Respondents believed that working abroad would provide more adventure, fulltime work, professional development, appropriate staffing, flexible scheduling, and freedom to choose their preferred job sector/specialty. The authors conclude that there is a need to study nursing graduates' labour mobility both within and outside of Canada and the factors that influence their decisionmaking and to address the factors that encourage them to leave Canada. Human resource planning will become increasingly important given the predicted nursing shortage and changes to nurse licensure in Canada with the potential to influence migration.

Keywords: migration, commuter migrant, value-expectancy, nurse graduates, border region, labour mobility

Des infirmières et infirmiers diplômés au Canada envisagent de partir à l'étranger pour travailler: le Canada répond-il à leurs attentes?

Michelle Freeman, Lizette Beaulieu, Jamie Crawley

On dit du titre d'infirmière ou infirmier autorisé qu'il est un «billet pour le monde ». Les infirmières et infirmiers du Canada participent activement à l'émigration, en particulier vers les États-Unis. Dans un monde de plus en plus tourné vers l'international, les infirmières et infirmiers diplômés du Canada ont accès à de nombreuses possibilités d'emploi. L'objectif de la présente étude est d'explorer les valeurs et les attentes en matière d'emploi d'étudiantes et étudiants au baccalauréat en sciences infirmières qui ont indiqué envisager de partir à l'étranger pour leur premier emploi, ainsi que d'évaluer leur confiance dans l'éventualité de retrouver les valeurs qu'ils recherchent au Canada comparativement à un autre pays. Il s'agit d'une étude quantitative s'appuyant sur le modèle attentesvaleurs. Les données ont été recueillies au moyen d'un sondage par autodéclaration en ligne et analysées à l'aide de la statistique descriptive pour la caractérisation de l'échantillon et de tests t pour les comparaisons. Un échantillonnage de commodité non probabiliste a été utilisé pour constituer un échantillon composé d'étudiantes et étudiants de dernière année d'un programme de baccalauréat en sciences infirmières vivant dans une région frontalière du Canada. Parmi les 130 répondantes et répondants, 92 (70,8 %) ont dit envisager de partir du Canada pour le travail. Les répondantes et répondants estiment que de travailler à l'étranger leur offrira plus d'aventure, du travail à plein temps, du perfectionnement professionnel, des milieux de travail adéquatement dotés en personnel, des horaires souples et la liberté d'investir le secteur ou la spécialité de leur choix. En conclusion de leur étude, les auteures signalent la nécessité d'étudier la mobilité de l'effectif des infirmières et infirmiers diplômés à l'intérieur et à l'extérieur du Canada et les facteurs influençant leur prise de décision, afin de trouver des moyens d'atténuer l'effet de ceux qui favorisent le départ à l'étranger. La planification des ressources humaines est appelée à devenir de plus en plus importante, étant donné la pénurie annoncée de personnel infirmier et les modifications apportées à l'autorisation d'exercer au Canada, lesquelles sont susceptibles d'avoir une influence sur la migration des effectifs.

Mots-clés : migration, émigration, modèle attentes-valeurs, infirmières et infirmiers diplômés, région frontalière, mobilité des effectifs

Background

Migration has had a long tradition in the nursing profession and Canadian registered nurses (RNs) have been active participants in it, especially in migration to the United States. Canadian nurse graduates have the option of working in their local area, migrating to other locations in Canada (internal migration), or leaving Canada to work in another country. The United States is the largest importer of nurses because of its size, and Canada has been an important source of RNs for the country, especially in border states such as Michigan (Aiken, Buchan, Sochalski, Nichols, & Powell, 2004; Freeman, Bauman, Akhtar-Danesh, Blythe, & Fisher, 2012), where nurses are able to live in Canada but commute across the international border for employment. In the 1990s, because of hospital restructuring and downsizing throughout Canada, approximately 27,000 nurses migrated to the United States in search of jobs (Baumann & Blythe, 2003; Industry Canada, 2008). McGillis Hall, Peterson, Price, Lalonde, and MacDonald-Renez (2013) argue that this trend in mobility continues today.

A shortage of RNs has been acknowledged globally, and most countries predict that they will need more nurses than they can produce or retain (Aiken et al., 2004; Buchan & Calman, 2004; World Health Organization, 2010). The United States alone has projected a deficit of 500,000 RN full-time equivalents (FTEs) by 2025 (Buerhaus, Staiger, & Auerbach, 2008). In addition, RN positions in the United States are projected to grow 19% from 2012 to 2022, a faster rate than that for all other occupations (Bureau of Labor Statistics, US Department of Labor, 2014). Canada has predicted its own nursing shortage of almost 60,000 FTEs by 2022 (Tomblin Murphy et al., 2009). It is essential, therefore, to continually examine factors that contribute to the loss of Canadian RNs, including new graduates, to other countries.

Recent changes to RN licensure in Canada may facilitate nurse migration to the United States. In January 2015 Canadian regulators chose the National Council of State Boards of Nursing (NCSBN) as the provider of the Canadian RN entry-to-practice examination. This is the same RN examination (NCLEX-RN) that is administered in the United States for entry-to-practice RNs (Canadian Council of Canadian Nurse Regulators, n.d.). Although the NCLEX is only part of the nursing regulatory licensure/registration process required for RNs to work in the United States, its adoption removes a significant barrier for Canadian RNs wishing to work there and could increase their migration. In addition, the College of Nurses of Ontario (2014) has introduced a regulation requiring nurses who have not practised in Ontario for 3 years to

either assume the status of *non-practising class*, relinquish their licence, or have their licence revoked; these nurses must now apply to have their certificate of registration reinstated. There is a concern that this regulation will act as a barrier for Canadian nurses who work in the United States but wish to return to Ontario to work (Dunphy, 2015).

The purpose of this article is to explore the job values and expectations that influence the decision-making of baccalaureate nursing students in a Canadian border region (southwestern Ontario) who indicated they were considering migrating abroad for their first job. There were two research questions: What job factors do these graduates value? How confident are these graduates that their values will be met in Canada compared to another country?

The study was guided by the Value-Expectancy (V-E) Framework. De Jong and Fawcett (1981) developed the V-E model of migration based on the theory of planned behaviour (Ajzen, 1988). They believed that to understand migration one must understand the individual's perspective, including how the decision to migrate is made by weighing what is valued against the expectation of achieving it. "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). The basic components of the V-E model are values (goals) and expectancies (subjective probabilities). The V-E model will help identify job factors that influence and motivate the decisions that nursing students make when choosing employment after graduating as an RN. The students' values and their expectations of achieving those factors will be examined. The framework was adapted for a previous study by Freeman et al. (2012).

Design and Methods

This article reports on the quantitative data collected through the replication of a Web-based self-report survey. It reports the survey results (quantitative findings only) for the cohort of nurse graduates who received their degree in June 2013 and indicated an interest in migrating. As in the previous study, using the same Web-based self-report survey (Freeman et al., 2012, p. 1533), a "migrant" was defined as a graduate who responded that he or she was considering taking their first nursing job outside Canada. This could entail either moving abroad (e.g., to the United States [California] or the United Kingdom) or living in Canada but commuting (commuter migrant) for work across the international border (e.g., Windsor–Detroit).

Quantitative data were collected through a Web-based self-report survey. These included personal characteristics shown to influence migration, such as age, partner and children status, history of migration (Buchan & Sochalski, 2004; De Jong, 2000; Kingma, 2006), job preferences (e.g., work hours), migration intentions, and the value and expectation of 25 job factors organized into eight categories: economic rewards, professional development, healthy work environments, safe living and working environments, opportunities for adventure, autonomy in choice of workplace, social supports, and support for ethical practice. Validity of the survey was examined using face and content validity analyses (Freeman et al., 2012; Waltz, Strickland, & Lenz, 2005). Face validity was tested in four steps: (1) 10 graduate nursing students were asked to judge the flow, clarity of language and concepts, and missing items; (2) the research team simplified the questions to include only one concept and added questions to more fully explore each category; (3) two recent graduates were observed completing the survey and were asked to comment on anything that was unclear; (4) the survey was tested by the researcher and five individuals for functionality and to ensure accurate data capture. Content validity of the questions in each category was tested by two experts. They rated each question on a four-point Likert scale (1 = not relevant to the category, <math>4 = strongly relevant to the category). The Content Validity Index (Waltz et al., 2005, p. 155) was calculated as 0.96, indicating high interrater agreement that the questions adequately represented each job category.

Value scores were measured using a five-point Likert scale (1 = very unimportant, 5 = very important). Expectation scores were measured on a five-point Likert scale (1 = not confident at all, 5 = extremely confident. I am about 100% certain). Questions were framed as statements about the importance (value) of a job factor and how confident the respondent was (expectation) about that job factor in Canada or in another country. For example: "How important is getting a fulltime job in nursing after you graduate?" "How confident are you that you will get a full-time job in nursing in Canada?" "How confident are you that you will get a full-time job in nursing in another country?" Each item on the scale was treated as a stand-alone variable. Thus no psychometric validation beyond face and content validity was necessary.

The study was approved by the Research Ethics Board at the home university of the researchers.

Sample

Survey participants were recruited from a class of 268 baccalaureate nursing students graduating from a university in a Canadian border

region in June 2013. Nonprobability convenience sampling was used. The survey was announced via e-mail and notices in public areas at the schools. The researchers were given permission to have the students complete the survey during classes taught by nursing professors not associated with the study. All students in attendance were given a \$5 gift card by the professor at the end of class (whether or not they chose to complete the survey). Students who were absent from class were given a link to the survey through the class Web site and were able to pick up their gift card from the nursing secretaries upon completion of the survey. Data collection took place in March 2013.

Data Analysis

Data analysis was performed using IBM® SPSS® Statistics 22. Prior to data analysis, the data were explored for accuracy of entry, missing data, and statistical assumptions such as normal distribution and outlier data points (El-Masri & Fox-Wasylyshyn, 2005; Field, 2005; Hazard Munro, 2005). Descriptive statistics were used to describe the sample characteristics and value and expectations mean scores. Ordinal variables (Likert scales) were treated as continuous variables for analysis (Tabachnick & Fidell, 2007). In this study, values and expectations were analyzed by individual job factor (rather than by category, as in the previous study) to gain additional insights into specific factors. A paired samples t test was used to explore differences between participants' job expectations for Canada and those for another country.

Results

There were 268 nurse graduates at the research sites. Of these, 141 (52.6%) completed the survey. Eleven surveys were incomplete and were removed from the analysis, resulting in a final response rate of 48.5%. The remaining surveys had a few missing responses (missing at random) accounting for differences in the reported number of participant responses. Almost 71% (70.8%, N = 92) of students indicated that they were considering migrating abroad for work and were the focus and final sample for this analysis. Notably, there was a difference of approximately 5% between 2011 (Freeman et al., 2012) and 2013 (66.1% and 70.8%, respectively) for the number of students interested in migrating abroad for work.

Sample Characteristics

Sample characteristics are displayed in Table 1. The majority of graduates expressed a preference for full-time work (78.3%, n = 72) in Canada

Variable	n	(%)
Age		
24 or under	56	(60.9)
25 or over	36	(39.1)
Gender		
Female	76	(82.6)
Male	16	(17.4)
Partnership status		
Single	73	(79.4)
Partnered	19	(20.6)
Children		
No	79	(85.9)
Yes	13	(14.1)
Born in Canada		
Yes	73	(79.3)
No	19	(20.7)
Lived in border community prior to entering program		
Yes	78	(84.8)
No	14	(15.2)
Preferred work hours		
Full-time	72	(78.3)
Part-time	20	(21.7)
Know nurse in Michigan		
Yes	44	(48.4)
No	47	(51.6)
Family/relative in Michigan		
Yes	59	(65.6)
No	31	(34.4)
Previous degree/diploma		
Yes	24	(26.1)
No	68	(73.9)
Prefer work in Canada		
Yes	75	(81.5)
No	17	(18.5)

	Val	lues
Variable	Mean	(SD)
Economic rewards		
Full-time job	3.81	(1.3)
Salary	3.74	(1.06)
Benefits	4.15	(1.2)
Professional development		
Increase competencies	4.3	(1.3)
Professional development	3.9	(1.06)
Healthy work environment		
Supports health, safety, and well-being	4.57	(1.09)
Supports quality patient care	4.53	(1.14)
Appropriate staffing	4.51	(1.16)
Visible nurse leaders	4.34	(1.02)
Open communication and trust	4.44	(1.1)
Good relationship with nurse manager	4.51	(.97)
Sufficient orientation program	4.64	(.97)
Flexible schedules	4.32	(.98)
Personal safety		
Job located in safe area	4.19	(.99)
Job allows living in safe area	4.35	(1.04)
Zero tolerance for workplace violence	4.35	(1.04)
Adventure		
Adventure — live in new place	3.5	(1.14)
Adventure — work in new place	3.3	(.94)
Autonomy		
Preferred job sector	4.09	(1.08)
Preferred specialty	4.15	(.89)
Support network		
Live close to family	4.01	(1.04)
Live close to friends	3.48	(.92)
Ethical practice		
Questioning unethical practices	4.45	(1.04)
Supports error reporting	4.55	(.89)
Supports speaking up if risk of harm	4.64	(.96)

(81.5%, n=75). The participants ranged in age from 22 to 48, with almost two thirds (60.9%) being 24 years or under. The sample was 82.6% female (n=76). As would be expected in an undergraduate nursing program, the majority were single (79.4%, n=73) and childless (85.9%, n=72). One in four (26.1%, n=24) reported having a previous degree or diploma. The majority (84.8%, n=78) lived in a border city prior to entering the nursing program. Not unexpected for residents of a border reigon, almost half (48.4%, n=44) knew a nurse working across the border (in Michigan) and two thirds (65.6%, n=59) had a friend or family member doing so. Approximately 21% (20.7%, n=19) stated that they were not born in Canada, indicating a previous migration experience.

Values and Expectations

As might be expected, participants' mean scores for job-related values (see Table 2) show that the 25 job factors were important to them. All factors of a healthy work environment, personal safety, autonomy in job choice, and support of ethical practice had means greater than four (important to very important). Individual factors, such as employment benefits, improved competency, and living close to family, also scored in this range of importance. Full-time work was slightly less important ($M=3.81, SD\pm1.3$), but this result might be explained by the fact that approximately one fifth of this group indicated that they preferred parttime work.

Participants' expectations for jobs in Canada and abroad were compared (see Table 3). They had significantly higher expectations of having their valued job factors met abroad for full-time work (t = -6.95, p < .001), professional development (t = -3.02, p = .003), appropriate staffing (t = -2.8, p = .007), flexible scheduling (t = -3.11, p = .003), adventure as a result of living (t = -5.0, p < .001) and working (t = -4.8, p < .001) in a new place, autonomy in choice of job sector (t = -6.7, p < .001), and preferred specialty (t = -6.7, p < .001). They had significantly higher expectations, however, for safe living (t = 11.15, t = 0.001) and working (t = 7.24, t = 0.001) in Canada. In addition, participants were significantly more confident that that they would be supported in questioning unsafe and unethical practices (t = 2.67, t = 0.009) in Canada.

Discussion

This study focused on the decision-making of nursing graduates before they enter the workforce and identified the job factors that might push them to leave Canada. The majority of graduates indicated a preference

Table 3 Comparison: Expectations for First Job in Canada and Abroad	in Canad	la and Abroad			
		Expectations	ations		
Variable	Z	Canada Mean (SD)	Abroad Mean (SD)	t(df)	p Value
Economic rewards Full-time job	91	2.38 (1.16)	3.36 (.94)	6.95 (90)	*100.
Salary	92	2.95 (1.06)	3.03 (1.02)	754 (91)	.45
Benefits	92	2.52 (1.21)	2.64 (1.03)	919 (91)	.36
Professional development					
Increase competencies	92	3.59 (.92)	3.66 (.86)	695 (91)	.49
Professional development	92	2.82 (1.08)	3.22 (.98)	-3.024 (91)	.003*
Healthy work environnent					
Supports health, safety, and well-being	92	3.35 (.93)	3.37 (.87)	-2.1 (91)	.83
Supports quality patient care	92	3.54 (.90)	3.6 (.85)	-6.3 (91)	.53
Appropriate staffing	92	2.75 (.99)	3.11 (1.09)	-2.8 (91)	_* 200.
Visible nurse leaders	92	3.11 (.96)	3.17 (.85)	-8.0 (91)	.43
Open communication and trust	92	3.08 (.89)	3.11 (.83)	35 (91)	.73
Good relationship with nurse manager	92	3.34 (.92)	3.32 (.84)	.36 (91)	.72
Sufficient orientation program	92	3.1 (.96)	3.11 (.98)	11 (91)	.92
Flexible schedules	92	2.48 (.94)	2.82 (.99)	-3.11 (91)	.003*
					Continued on next page

		Expectations	ations		
Variable	Z	Canada Mean (SD)	Abroad Mean (SD)	t(df)	p Value
Personal safety Job located in safe area Job allows living in safe area Zero tolerance for workplace violence	91	3.85 (.76) 3.85 (.77) 3.57 (.92)	2.65 (.89) 3.12 (.99) 3.41 (.87)	11.15 (90) 7.24 (90) 1.55 (90)	.001* .001* .12
Adventure — live in new place Adventure — work in new place	06	2.61 (1.14) 2.69 (.87)	3.22 (1.21) 3.20 (1.01)	-5.0 (89) -4.8 (89)	.001*
Autonomy in job choice Preferred job sector Preferred specialty	92	2.52 (1.04) 2.33 (.99)	3.30 (.99)	-6.7 (91) -6.7 (91)	.001*
Support network Live close to family Live close to friends	92	2.95 (1.19) 2.82 (1.17)	2.66 (1.25) 2.65 (1.29)	1.9 (91)	.06
Ethical practice Questioning unethical practices Supports error reporting Supports speaking up if risk of harm * Significant two-tailed <i>p</i> value at an α of .05	91 91 91	3.70 (.81) 3.54 (.85) 3.74 (85)	3.45 (.89) 3.36 (.98) 3.59 (.86)	2.67 (90) 1.72 (90) 1.4 (90)	*000. .09 .17

for working in Canada but because of a perceived lack of valued job attributes were considering migration. MacMillan (2013) cautions that policy-makers believe they have addressed the issue of nurse supply because they have increased the number of places in nursing programs. By taking a singular approach, without addressing factors that attract nurses to jobs, Canada may be unwittingly producing nurses for the benefit of other countries, especially the United States. Increasing the production of nurses, although important, must be viewed as only one aspect of addressing the predicted nurse shortage. The missing link is understanding nurse mobility and the factors that influence nurses to move from one place to another during their careers (MacMillan, 2013). There is a pressing need for researchers and policy-makers to monitor the impact of changes to Canadian nurse licensure on this mobility, especially on the return migration of Canadian nurses.

Theories of migration have rarely informed research on nurse migration (Freeman et al., 2012). "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, 2006, p. 13). The V-E Framework offers a promising approach to recruiting and retaining new graduates. It identifies what new graduates value in a first job and the factors that push them to migrate (e.g., lack of full-time work). The V-E Framework has proven to be useful in predicting migration behaviours in other populations (De Jong, 2000), and future development of a psychometric scale holds promise for predicting nurse migration.

This study has identified a troubling trend. Between 2011 and 2013, students indicating an interest in migrating from Canada for work increased by 5% (Freeman et al., 2012). This increase could be influenced by a combination of factors. It may be a result of the lack of anticipated full-time positions in Canada, as the forecasted retirement and exit of older nurses from the workforce has yet to be realized. The dearth of fulltime jobs for new graduate nurses in southwestern Ontario has been attributed to a worsening economy in the region, with job losses in several industries that have caused many current nurses to delay their retirement. Also, the nursing workforce in Ontario has grown, as schools of nursing were funded during the first decade of the millennium to increase their intake of students in anticipation of a nursing shortage (Baumann, Yan, Degelder, & Malikov, 2006): for example, in 2008 there were 2,797 nursing graduates and by 2012 the number had grown to 3,941, an increase of approximately 41% (Canadian Nurses Association & Canadian Association of Schools of Nursing, 2013, p. 6). In addition,

there has been a movement in Ontario to replace RNs with registered practical nurses (RPNs), resulting in fewer RN positions. Ontario has been found to have the second-lowest RN-to-population ratio in Canada, having decreased from 7.18 to 6.99 per 1,000 people between 2008 and 2012 (Registered Nurses Association of Ontario, 2013). This complex pattern of supply and demand points to the need for more research focused on nurse human resource planning.

The study was focused on one border region in Canada. However, its findings have broad implications for current and future nurse human resource planning. Canadians have been described as a "border people," with 75% of the population living within a narrow radius of 150 kilometres from the US border (Hillmer, 2005). Nursing students who live in and attend programs in communities along the US-Canada border have access to jobs within large American health-care systems and have the option of working in either country, crossing the border daily to work as commuter migrants and returning to their home country at the end of their shift (Freeman et al., 2012). A recent study in a border region in southwestern Ontario found that commuter migrants have workplace choices that do not exist in non-border regions and rated their US workplace (in Michigan) more positively (Rajacich, Freeman, Armstrong-Stassen, Cameron, & Wolfe, 2014). In addition, seminal work by Arango (2000) describes migration networks, including such aspects as "knowing nurses who work in Michigan," as one of the principal explanatory factors for migration (p. 292). Border regions may be at greater risk for nursing shortages in the future as a result of these influential networks.

An additional concern is that participants perceived that many of the job factors identified as important and valued by this cohort would not be available to them in Canada. These factors, such as full-time work, flexible scheduling, and professional development, have been found to influence the decision to leave Canada (McGillis Hall et al., 2009, 2013). Another factor, safe living and working environments, has received little attention in Canada but is known to influence nurse migration worldwide (Kingma, 2006). Participants in the present study valued the ability to choose their job sector and specialty, a challenge in unionized workplaces where positions are awarded by seniority, leaving new graduates out of the competition. Health-system and union leadership need to partner to explore ways of designing workplaces that entice new graduates to remain in Canada, including more flexible scheduling, professional development, and orientation periods sufficiently long to instil confidence in new graduates.

Limitations

This study examined the values and expectations of one cohort of Canadian graduating nursing students living in a region bordering on the United States and might not be generalizable to other border populations. Migration intentions do not always result in migration (De Jong & Fawcett, 1981). Longitudinal studies of both border and non-border regions and cohorts of nursing graduates over time are warranted, to determine whether the expectations of new graduates were indeed met while working in other countries.

Conclusion

Nurse migration is a growing global phenomenon and Canadian graduate nurses are part of the trend. To effectively guide nurse human resource planning, we need to study nurse labour mobility both within and outside Canada (MacMillan, 2013) and the impact, on the trend, of recent changes to nurse licensure in Canada. The younger generation is more globally oriented and may have chosen the profession because nursing is regarded as "a ticket to the world" (MacMillan, 2013; Roush, 2009). The graduates who took part in this study, like many before them, voiced a desire to stay and work in Canada. Health-care leaders and policy-makers need to address the factors in the work environment that continue to encourage nurses to leave Canada. Migration does not occur without strong push factors in the home country (Kingma, 2006). "Without both sets of forces [push and pull] 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, & Royston, 1979, p. 102). Retaining new graduate nurses has major implications for the nursing profession and for the health of Canadians. The time for action is now.

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Michelle Freeman, RN, PhD, is Associate Professor, Graduate Coordinator (Acting), and Faculty Advisor, IHI Open School, Windsor Chapter, Faculty of Nursing, University of Windsor, Ontario, Canada. Lizette Beaulieu, RN, MN, is Professor, St. Clair College, Windsor. Jamie Crawley, RN, PhD, is Assistant Professor, Faculty of Nursing, University of Windsor.