



Generational Differences in Acute Care Nurses

Kimberley Widger, RN, MN

Christine Pye, RN, BSc, BScN

Lisa Cranley, RN, MN

Barbara Wilson-Keates, RN, MS

Mae Squires RN, MScN

Faculty of Nursing, University of Toronto, Toronto, ON

Ann Tourangeau, RN, PhD

Assistant Professor and Career Scientist

Faculty of Nursing, University of Toronto

Adjunct Scientist, Institute for Clinical Evaluative Sciences

Toronto, ON

Abstract

Generational differences in values, expectations and perceptions of work have been proposed as one basis for problems and solutions in recruitment and retention of nurses.

Method: This study used a descriptive design. A sample of 8,207 registered nurses and registered practical nurses working in Ontario, Canada, acute care hospitals who responded to the Ontario Nurse Survey in 2003 were included in this study. Respondents were categorized as Baby Boomers, Generation X or Generation Y based on their birth year. Differences in responses among these three generations to questions about their own characteristics, employment circumstances, work environment and responses to the work environment were explored.

Results: There were statistically significant differences among the generations. Baby Boomers primarily worked full-time day shifts. Gen Y tended to be employed in teaching hospitals; Boomers worked more commonly in community hospitals. Baby Boomers were generally more satisfied with their jobs than Gen X or Gen Y nurses. Gen Y had the largest proportion of nurses with high levels of burnout in the areas of emotional exhaustion and depersonalization. Baby Boomers had the largest proportion of nurses with low levels of burnout.

Conclusion: Nurse managers may be able to capitalize on differences in generational values and needs in designing appropriate interventions to enhance recruitment and retention of nurses.

In 2003, the average age of registered nurses in Canada was 44.5 years (CNA 2004). Evidence of a nursing shortage exists, and the situation is likely to worsen before improving. Consequently, retention and recruitment has been a prominent topic in the nursing literature. Generational differences in values, expectations and perceptions have been proposed as one influential factor in relation to recruitment and retention, particularly in the business world. A variety of books have been written about the characteristics of the generations (Lancaster and Stillman 2002; Strauss and Howe 1991; Zemke et al. 2000). Generational differences among nurses have been explored, but not extensively. This paper explores generational differences of registered nurses (RNs) and registered practical nurses (RPNs) working in Ontario, Canada, acute care hospitals with respect to their characteristics, employment circumstances and personal descriptions of their work environments.

Literature Review

Currently, four generations of nurses are employed in Canada. Each is believed to have its own set of values, expectations and perceptions (Strauss and Howe 1991). The *Veterans*, born between 1925 and 1945, are nearing retirement and are characterized as being overly cautious, conservative and slow to adjust to new information and technology. They value loyalty, discipline, teamwork, reward for hard work, respect for authority and seniority-driven entitlement. *Baby Boomers*, born between 1946 and 1964, are characterized as workaholics, concerned with work performance, promotions and titles. They value creativity, lifelong learning and risk-taking, but have adjusted slowly to new information and technology. They are motivated by appropriate compensation and have delayed retirement for more self-serving advancement in the workplace. Nurses from *Generation X* (Gen X), born between 1965 and 1979, are comfortable with change, technology and diversity. They are self-directed and are motivated by working conditions that value their talents, creativity, expertise, skills and ability. They tend to value career security over job security and organizational commitment. Those in *Generation Y* (Gen Y), born between 1980 and 2000, favour a collective, cohesive and collaborative approach to work. They expect technology, are confident, desire immediate feedback and recognition, want to be coached and mentored by knowledgeable managers, and strive to maintain a balance between work and family (Lancaster and Stillman 2002; Zemke et al. 2000).

There is some evidence to support the existence of generational differences in the nursing workforce. Hu et al. (2004) surveyed a sample of multi-generational nurses to describe attributes of two groups (Veterans and Baby Boomers compared with Gen X and Gen Y). They studied communication styles to determine which tasks had more significance for each generation in the work environment. A convenience sample of 62 registered nurses, nurse technicians and nursing secretaries from medical–surgical and critical care units in four US hospitals

were studied. The majority of participants were Baby Boomers (41.9%) and Gen X (50%). While there were no significant differences between the two groups with regard to perceptions about communication styles or significance of tasks related to work, there were differences in the groups' attributes. These researchers found that nurses belonging to the older generations were more concerned about retirement and had greater difficulty adjusting to computers in the workplace than younger generations. The Veterans and Baby Boomers considered themselves to be caring and savvy, whereas Gen X and Gen Y nurses thought of themselves as principled and idealistic. In the work environment, older generations were more concerned about receiving honest and respectful feedback from their supervisors, and considered themselves to be more detail oriented than younger generations. In contrast, younger generations valued regular reinforcement, immediate feedback, flexibility and freedom.

McNeese-Smith and Crook (2003) and McNeese-Smith and van Servellen (2000) explored how age, generation, job stage and work values affected job satisfaction, productivity and organizational commitment. The Work Values Inventory was completed by 412 nurses in various roles at three different US hospitals to determine which values nurses felt were most important in their work environment. Although only slight variations were found among nurses from different generations, younger generations placed greater emphasis on financial returns and variety. Older generations showed greater job satisfaction, productivity and organizational commitment.

Santos and Cox (2000) used the Occupational Stress Inventory to describe stress, strain and coping among 413 Veteran, Baby Boomer and Gen X RNs working in a US paediatric hospital. Veterans had the highest mean score on role insufficiency (training and skills exceed demand). Gen X had higher mean scores related to the physical environment. Overall, Baby Boomers experienced higher levels of stress than other generations, particularly in role overload (resources exceed demand) and role boundary (conflicting demands and loyalties). Baby Boomers had significantly more concerns related to vocational and interpersonal strain in the workplace and were found to have the poorest coping strategies among the generations. Similarly, in a second study with 694 nurses from rural, urban, suburban and specialty hospitals in the midwestern United States, Santos et al. (2003) found that Baby Boomers had significantly worse scores than other generations in role overload, role insufficiency, role ambiguity, role boundary and interpersonal strain.

Stuenkle et al. (2005) surveyed 272 staff nurses from a single acute care hospital in the United States to determine perceptions of work environment using the Moos Work Environment Scale. Gen X nurses perceived higher levels of job commitment, supervisory support, autonomy, innovation and efficiency than did Baby

Boomers. There were no significant differences between the two generations in peer cohesion, work pressure, clarity, control and physical comfort.

Wieck et al. (2002) surveyed a US sample of 108 nursing students and 126 midwestern US nurse managers to compare rankings of leadership traits. Those under age 35 years valued leaders who were honest, motivating, nurturing, knowledgeable, supportive and team oriented. In comparison, nurses over age 35 wanted leaders who had high integrity and were approachable, accessible, fair and empowering.

Sherman (2005) used focus groups with 48 US nurses under the age of 40 to study factors affecting Gen X and Gen Y nurses' decisions to accept or reject leadership positions. Stress and inadequate compensation associated with nurse leadership positions were key deterrents for younger generations in pursuing leadership positions. However, perceiving an ability to make a difference was an incentive for Gen X and Gen Y nurses in accepting leadership positions. They ranked mentorship as the number one support strategy to help them become successful leaders.

To add to the body of literature about generational differences in the nursing workforce, the purpose of this study was to explore similarities and differences of three generations of Ontario acute care hospital RNs and RPNs. We report on characteristics, employment circumstances and nurses' descriptions of and responses to their hospital environments.

Method

Design and sample

Secondary analysis of an existing survey data set from two studies examining nurse-related determinants of 30-day mortality and unplanned hospital readmission was conducted for this study (Tourangeau et al. 2005; Tourangeau and Cranley 2006; Tourangeau et al. 2006). The studies were approved by the University of Toronto Health Services I Ethics Review Board. Surveys were sent in February and March 2003 to RNs and RPNs who reported on their 2003 College of Nurses of Ontario registration form that they were employed in a medical, surgical or critical care area in an Ontario teaching or community acute care hospital. A total of 8,456 nurses (65% of surveyed nurses) completed the survey.

There is disagreement regarding the range of birth years to include in each generation. Lancaster and Stillman (2002) suggest there are "cuspers" who fall between generations and have similarities to both generations. Similarly, Zemke et al. (2000) suggest generational groupings overlap by three to four years at either end. Authors of both books came to this conclusion through a number of surveys, focus groups and experience in consulting on generational issues with a variety of

companies. Because of the small number of Gen Y nurses currently in the workforce and our desire to include these newest nurses as a separate group for study, we included the “cuspers” with the younger generation in each range. For this study, Veterans were excluded because of the small number of nurses in the group with the revised range of birth years. Baby Boomers were defined as those born between 1940 and 1959, Gen X born between 1960 and 1974 and Gen Y born in 1975 or later. Using these definitions, there were 8,207 nurses in this study, including 4,118 (50.2%) Baby Boomers, 3,429 (41.8%) Gen X and 660 (8%) Gen Y.

Variables in the Ontario Nurse Survey 2003

The original survey was nine pages long and included sections that invited respondents to describe where they worked within their hospitals, their evaluation of quality of patient care, their career intentions, their history of injury from a patient-contaminated sharp, their level of burnout, the condition of their professional nursing practice environments, their job satisfaction, discharge-related patient care processes and demographic information (Tourangeau et al. 2005, 2006). For this secondary analysis of data obtained in the Ontario Nurse Survey, we focused on survey sections that invited respondents to describe where they worked, their job-related feelings (burnout), the condition of their professional nursing practice environments, their job satisfaction and some demographic information. Three commonly used and well-validated instruments were included in the survey: the Revised Nursing Work Index (NWI), the McCloskey–Mueller Satisfaction Scale (MMSS) and the Maslach Burnout Inventory (MBI). Discussions of the psychometric properties of these instruments are reported elsewhere (Aiken and Patrician 2000; Lake 2002; Maslach et al. 1996; Mueller and McCloskey 1990; Tourangeau et al. 2006).

The NWI is a 49-item Likert scale instrument with four-point response options ranging from strongly disagree (value = 1) to strongly agree (value = 4). The instrument was used to assess the professional nursing practice environment in five areas: nurse manager ability and leadership (4 items), nurse participation in hospital affairs (9 items), nursing foundations for quality care (9 items), adequacy of staffing and resources (4 items) and collegial relationships among nurses and physicians (3 items) (Aiken and Patrician 2000; Lake 2002). The NWI measures the presence of these important components of the nursing practice environment but does not measure level of satisfaction with these components. Scores for each NWI subscale were standardized to be out of 100 to facilitate interpretation across subscales.

The MMSS is a 31-item Likert scale instrument with five-point response options ranging from very dissatisfied (value = 1) to very satisfied (value = 5). The MMSS was used to measure global nurse job satisfaction (32 items) and the following eight components of job satisfaction: extrinsic rewards (3 items), scheduling

(6 items), balance of family and work (3 items), co-workers (2 items), interaction opportunities (4 items), professional opportunities (4 items), praise and recognition (4 items) and work control and responsibility (5 items) (Mueller and McCloskey 1990). Scores for each MMSS subscale were standardized to be out of 100 to facilitate interpretation across subscales.

The MBI is a 22-item Likert scale instrument with seven-point response options ranging from never (value = 0) to every day (value = 6). Responses to nine items relating to emotional exhaustion were scored and summed, with a score greater than 26 indicating high burnout, a score of 17 to 26 indicating moderate burnout and a score less than 17 indicating low burnout. Responses to five items relating to depersonalization were scored and summed, with a score greater than 12 indicating high burnout, a score of 7 to 12 indicating moderate burnout and a score less than 7 indicating low burnout. Responses to eight items relating to personal accomplishment were scored and summed, with a score of less than 32 indicating high burnout, a score of 32 to 38 indicating moderate burnout and a score higher than 38 indicating low burnout (Maslach et al. 1996). As scores are clearly classed into levels of burnout on this instrument, scores were not standardized as they were for the NWI and MMSS instruments.

Data analysis

All data were analyzed using SPSS Version 11.5® (Chicago, IL) software. Descriptive statistics were used to summarize nurse survey data. Chi-square tests of difference were used to explore differences in nurse characteristics, employment circumstances and proportion of nurses scoring within each level of burnout on each MBI subscale among the three generations. Multivariate analysis of variance (MANOVA) was used to test for differences in mean scores among the generations on each NWI and MMSS subscale.

Results

Nurse characteristics and employment circumstances

Characteristics and employment circumstances of three generations of nurses are presented in Table 1. Baby Boomers primarily worked full time (64%) and day shifts (46%). The majority of Baby Boomers regularly worked 12-hour shifts (62%), but a significantly lower proportion did so than Gen X (75%) or Gen Y nurses (82%). Gen X had the largest proportion of part-time nurses (45%) and the highest proportion working primarily night shifts (18%). Gen Y had the highest proportion working 12-hour shifts (82%) with equal days and nights (57%) compared with the other two generations.

A higher proportion of Gen Y nurses were employed in teaching hospitals (43%), with Boomers working more commonly in acute care community hospitals

Table 1. Nurse sample characteristics and employment circumstances by generation

		Boomers	Gen X	Gen Y	Total	p-value
		n (%)	n (%)	n (%)	n (%)	
Sex	Male	129 (3)	146 (4)	28 (4)	303 (4)	.027
	Female	3986 (97)	3282 (96)	632 (96)	7900 (96)	
Employment Status	Full-time	2561 (64)	1808 (55)	399 (61)	4768 (60)	<.001
	Part-time/casual	1460 (36)	1505 (45)	251 (39)	3216 (40)	
Shift Length	Less than 12 hours	1560 (38)	857 (25)	118 (18)	2535 (31)	<.001
	12 hours	2549 (62)	2566 (75)	541 (82)	5656 (69)	
Shift Type	Days	1892 (46)	1110 (32)	159 (24)	3161 (39)	<.001
	Evenings	273 (7)	213 (6)	41 (6)	527 (6)	
	Nights	435 (11)	630 (18)	80 (12)	1145 (14)	
	Equal days/nights	1498 (37)	1466 (43)	377 (57)	3341 (41)	
Hospital Type	Community	2919 (71)	2073 (61)	378 (57)	5370 (66)	<.001
	Teaching	1165 (28)	1340 (39)	281 (43)	2786 (34)	
Unit Type	Med., Surg. or combined	2573 (68)	1970 (62)	492 (79)	5035 (67)	<.001
	Critical Care	1171 (31)	1232 (38)	127 (20)	2530 (33)	
RN/RPN	RN	3121 (79)	2948 (88)	602 (92)	6671 (84)	<.001
	RPN	815 (21)	400 (12)	53 (8)	1268 (16)	
Education Level (RNs only)	No degree	2642 (85)	2174 (74)	390 (65)	5206 (78)	<.001
	Baccalaureate or higher	479 (15)	774 (26)	212 (35)	1465 (22)	
Nursing Certificate Program	No program completed	1497 (37)	1473 (43)	415 (63)	3385 (42)	<.001
	Program completed	2565 (63)	1919 (57)	240 (37)	4724 (58)	
University/College Course	Not enrolled	3648 (89)	2705 (79)	461 (70)	6814 (83)	<.001
	Enrolled	453 (11)	713 (21)	199 (30)	1365 (17)	

Note: p-values considered statistically significant if <.05.

(71%). A significantly higher proportion of Gen Y nurses worked on medical, surgical or combined medical–surgical units (79%), while a higher proportion of Gen X nurses worked in critical care areas (38%).

The proportion of RNs versus RPNs increased across the generations, with a significantly higher percentage of RNs in Gen Y (92%) than in the Baby Boomers (79%). Similarly, the proportion of nurses with a baccalaureate degree or higher increased in younger generations. Although Gen Y nurses only recently completed their nursing education, nearly 37% had already completed a nursing specialty certificate course and 30% were enrolled in a college or university course. While a higher proportion of Baby Boomers had completed a certificate course (63%), relatively few were currently enrolled in a college or university course (11%).

Work environment

Mean NWI scores on each subscale for each generation are reported in Table 2. All ratings were relatively low. There were no significant differences between genera-

tions in their rating of staffing and resource adequacy or collegial nurse–physician relations. However, Gen Y nurses rated nurse participation in hospital affairs and manager ability significantly higher than did other generations, while Gen X nurses rated foundations for high-quality care significantly lower than did other generations.

Table 2. Mean (SD) Nursing Work Index subscale scores by generation

Subscales	Boomer	Gen X	Gen Y	Total	<i>p</i> -value
Nurse participation in hospital affairs	46 (20)	45 (19)	48 (19)	46 (20)	.001
Nursing foundations for high-quality care	61 (18)	60 (17)	62 (16)	61 (17)	.001
Nurse manager ability and support	46 (27)	46 (27)	49 (27)	46 (27)	.024
Staffing and resource adequacy	43 (25)	43 (24)	41 (24)	43 (25)	NS
Collegial nurse–physician relations	63 (21)	62 (21)	62 (21)	62 (21)	NS

Note: All scores standardized to be out of 100. *p*-values considered statistically significant if <.05. NS refers to not statistically significant.

Table 3. Mean (SD) McCloskey–Mueller Satisfaction subscale scores by generation

Subscales	Boomer	Gen X	Gen Y	Total	<i>p</i> -value
Extrinsic rewards	59 (24)	54 (22)	54 (21)	57 (23)	<.001
Scheduling	54 (24)	49 (23)	48 (20)	51 (24)	<.001
Balance of family and work	55 (15)	52 (16)	51 (14)	53 (15)	<.001
Co-workers	72 (18)	71 (18)	71 (18)	71 (18)	NS
Interaction opportunities	64 (19)	63 (18)	64 (18)	64 (18)	NS
Professional opportunities	47 (18)	45 (17)	45 (16)	46 (17)	<.001
Praise and recognition	52 (23)	49 (22)	50 (22)	50 (22)	<.001
Control and responsibility	46 (22)	44 (20)	44 (19)	45 (21)	<.001
Overall satisfaction	55 (15)	52 (14)	52 (13)	53 (14)	<.001

Note: All scores standardized to be out of 100. *p*-values considered statistically significant if <.05. NS refers to not statistically significant.

Job satisfaction

Mean MMSS scores on each subscale for each generation are reported in Table 3. There were no significant differences among generations in satisfaction with co-workers or satisfaction with interaction opportunities. All three generations reported highest levels of satisfaction in these two subscales. Baby Boomers were significantly more satisfied than both Gen X and Gen Y with extrinsic rewards, scheduling, balance of family and work, professional responsibility and overall satisfaction. Baby Boomers were still most satisfied with praise and recognition and control and responsibility, but not significantly more so than Gen Y nurses.

Interestingly, there were no significant differences between Gen X and Gen Y nurses on any subscales.

Burnout

The number and proportion of nurses in each generation who scored high, moderate or low levels of burnout in the three MBI subscales are presented in Table 4. Baby Boomers had a significantly larger proportion of nurses scoring in the range indicating low levels of burnout for each subscale. Gen Y had the largest proportion of nurses with scores indicating high levels of burnout for emotional exhaustion and depersonalization.

Table 4.

Number (percentage) of nurses' scores in high, moderate and low categories in each Maslach Burnout Inventory subscale by generation

Subscale	Burnout Level	Boomer	Gen X	Gen Y	Total	p-value
Emotional Exhaustion	High	1542 (38)	1226 (36)	253 (38)	3021 (37)	.007
	Moderate	1260 (31)	1179 (34)	220 (33)	2659 (32)	
	Low	1304 (32)	1018 (30)	186 (28)	2508 (31)	
Depersonalization	High	333 (8)	369 (11)	93 (14)	795 (10)	<.001
	Moderate	739 (18)	782 (23)	204 (31)	1725 (21)	
	Low	3022 (74)	2258 (66)	360 (55)	5640 (69)	
Personal Accomplishment	High	630 (15)	643 (19)	114 (17)	1387 (17)	<.001
	Moderate	1217 (30)	1171 (34)	217 (33)	2605 (32)	
	Low	2229 (55)	1597 (47)	328 (50)	4154 (51)	

Note: p-values considered statistically significant if <.05.

Discussion

These findings highlight differences and similarities found among three generations of nurses working in Ontario acute care hospitals with regard to their characteristics, employment circumstances and personal descriptions of their work environment. The results lend some credibility to the idea that there is benefit in targeting recruitment and retention strategies to differing generational values and needs.

The majority of Baby Boomers continue to work full time, which fits with the description of this generation as “workaholics” who are more likely to delay retirement as they strive for advancement in the workplace (Zemke et al. 2000). As well, Baby Boomers may need to work in order to provide financially for their children and aging parents. In contrast, almost half of

Gen X nurses work part time, and Gen Y nurses occupy significantly more full-time positions than those of Gen X. Perhaps Gen X nurses prefer the flexibility of part-time hours to raise their families, whereas Gen Y nurses may not yet have to juggle these responsibilities and are anxious to establish careers. None of the generations is particularly satisfied with scheduling, but Baby Boomer and Gen X nurses are significantly more satisfied with their schedules than Gen Y nurses. This finding may reflect the fact that the vast majority of nurses working in Ontario acute care hospitals are unionized. In Ontario nursing unions, level of seniority determines, in large part, the amount of choice a nurse has in the number and flexibility of hours worked. Baby Boomers would likely have the most seniority and, therefore, the most flexibility and choice in their schedules. Baby Boomer nurses may also stay in full-time positions to maintain their seniority. Gen Y nurses would have the lowest level of seniority. Therefore, they have less choice and flexibility in their schedules, a situation that may contribute to their being less satisfied with this area of work.

Not surprisingly, we found that Gen Y nurses tended to work in teaching hospitals, which offer new graduates more training opportunities corresponding to their desire to be coached and mentored (Zemke et al. 2000). Medical–surgical units are the areas where new graduates must often start their careers to enhance their knowledge and skills. However, if experienced nurses are the minority in medical–surgical areas, particularly in teaching hospitals, who is mentoring young nurses in their roles?

RNs who graduate after 2005 in Ontario must possess a baccalaureate degree in nursing to become a registered nurse (College of Nurses of Ontario 2006). As expected, the trend to obtain a baccalaureate degree increased with each consecutive generation. Interestingly, there is some evidence to suggest that nurses with higher educational levels are more likely to leave nursing if they are not offered career advancements within their organization (Yin and Yang 2002). Similarly, Gen X is portrayed as having greater loyalty to themselves than to the organization they work for. They may demonstrate this by constantly seeking new challenges and new roles that will make them more marketable in a world where competition for jobs is strong (Lancaster and Stillman 2002). This tendency raises an important issue. Higher nursing educational standards produce highly educated and skilled registered nurses, but workplaces may not offer career advancement and professional development that these educated nurses may desire to facilitate their retention. Healthcare institutions should provide more support for educational activi-

ties and career advancement opportunities (e.g., career ladders) as a strategy to keep younger nurses challenged and feeling valued.

Overall, nurses across each generation agree their nursing practice environments are less than desirable. The highest-rated aspect was collegial nurse–physician relationships, followed by nursing foundations for high-quality care. However, there is still room for much improvement in these areas. Nursing foundations for high-quality care include continuing education programs, clinical competence of colleagues, continuity of nursing care and use of care plans. Gen Y nurses felt there were more opportunities for participation in hospital affairs than did Gen X and Baby Boomer nurses. Gen Y nurses may seek out these opportunities more readily than other generations because they are thought to enjoy teamwork and place high value on collaboration (Zemke et al. 2000).

Our findings reveal that staffing and resource adequacy is the lowest-rated aspect of the nursing practice environment for all three generations. The nursing shortage and healthcare budget cuts are likely contributors to this finding. However, strategies to improve staffing and resources are essential to recruit new graduates into the nursing profession, retain nurses in the profession and enable hospitals to provide safe patient care.

Nurse managers play a pivotal role in nursing practice environments, and their abilities were rated very low by all generations. This finding may reflect past trends to decrease the number of nurse managers in the Canadian healthcare system. These trends resulted in a very large span of control for remaining nurse managers, with large numbers of nurses reporting to each manager. This situation may decrease opportunities for interaction between managers and staff and contribute to low ratings in this area. However, there were significant differences among generations. Our findings are consistent with previous research that showed different generations desired different traits and styles in their leaders (Sherman 2005; Wieck et al. 2002). Perhaps nurse managers should vary their strategies and target the values of the different generations to enhance their ability to support all nurses.

Similar to previous studies (McNeese-Smith and Crook 2003; McNeese-Smith and van Servellen 2000), we found that Baby Boomer nurses were more satisfied with their work than both Gen X and Gen Y nurses. However, in contrast to findings by Santos and Cox (2000), where Baby Boomers had significantly higher levels of stress that may be linked to burnout, we found

that Baby Boomers on average had lower levels of burnout than other generations of nurses.

Conclusion

This study included nurses working in acute care settings in Ontario hospitals and, therefore, generalizability of the findings may be limited. Further research is needed to determine whether generational differences among nurses hold true in other settings.

This study showed that ratings of nursing practice environments and job satisfaction are relatively low and burnout levels are relatively high in all generations of nurses working on Ontario. As job dissatisfaction and high levels of burnout are correlated with increased nurse turnover (Hayes et al. 2005), strategies are needed to improve nursing practice environments, raise levels of job satisfaction and decrease levels of burnout in an effort to retain nurses in the profession and recruit new individuals to nursing. Capitalizing on differences in generational values and needs may be one strategy to achieve these goals.

Acknowledgments

Christine Pye is supported by a Health Professional Research Award from the Canadian Institutes of Health Research (CIHR). Lisa Cranley is supported by a doctoral fellowship from CIHR. Ann Tourangeau is supported by a Career Scientist Award from the Ontario Ministry of Health and Long-Term Care. The authors gratefully acknowledge the Nursing Health Services Research Unit at the Faculty of Nursing University of Toronto for funding the study “Exploration of Intergenerational Similarities and Differences in Work Environments and Responses to their Work Environments for Ontario Acute Care Hospital Nurses,” CIHR for funding the study “Nursing and Other Determinants of Hospital Level Outcomes Such as 30-Day Mortality and Readmission Rates” and the Canadian Health Services Research Foundation for funding the study “Nurse Staffing and Work Environments: Relationships with Hospital-Level Outcomes.”

Correspondence may be addressed to: Kimberley Widger, Faculty of Nursing, University of Toronto, 155 College Street, Toronto, ON M5T 1P8; tel.: 416-946-3928; e-mail: kim.widger@utoronto.ca.

References

Aiken, L.H. and P.A. Patrician. 2000. “Measuring Organizational Traits of Hospitals: The Revised Nursing Work Index.” *Nursing Research* 49: 146–53.

- Canadian Nurses Association (CNA). 2004. "Highlights of 2003 Nursing Statistics." Retrieved January 28, 2007. <http://www.cna-nurses.ca/CNA/documents/pdf/publications/CNA_HHR_Fact_Sheet_e.pdf>.
- College of Nurses of Ontario. 2004. "Fact Sheet: Registration Baccalaureate Education for Registered Nurses in Ontario." Retrieved January 28, 2007. <http://www.cno.org/docs/reg/43066_fsChanges-RnEdu.pdf>.
- Hayes, L.J., L. O'Brien-Pallas, C. Duffield, J. Shamian, J. Buchan, F. Hughes, H.K. Spence Laschinger, N. North and P.W. Stone. 2006. "Nurse Turnover: A Literature Review." *International Journal of Nursing Studies* 43(2): 237–63.
- Hu, J., C. Herrick and K. Allard Hodgkin. 2004. "Managing the Multigenerational Nursing Team." *Health Care Manager* 23(4): 334–40.
- Lake, E.T. 2002. "Development of the Practice Environment Scale of the Nursing Work Index." *Research in Nursing and Health* 25: 176–88.
- Lancaster, L.C. and D. Stillman. 2002. *When Generations Collide*. New York: Collins Business.
- Maslach, C., S. Jackson and M. Leitner. 1996. *Maslach Burnout Inventory Manual* (3rd ed.). Palo Alto, CA: Consulting Psychologists Press.
- McNeese-Smith, D.K. and M. Crook. 2003. "Nursing Values and a Changing Nurse Workforce." *Journal of Nursing Administration* 33(5): 260–70.
- McNeese-Smith, D.K. and G. van Servellen. 2000. "Age, Developmental, and Job Stage Influences on Nurse Outcomes." *Outcomes Management for Nursing Practice* 4(2): 97–104.
- Mueller, C.W. and J.C. McCloskey. 1990. "Nurse Job Satisfaction: A Proposed Measure." *Nursing Research* 39: 113–17.
- Santos, S.R., C.A. Carroll, K.S. Cox, S.L. Teasley, S.D. Simon, L. Bainbridge, M. Cunningham and L. Ott. 2003. "Baby Boomer Nurses Bearing the Burden of Care." *Journal of Nursing Administration* 33(4): 243–50.
- Santos, S.R. and K. Cox. 2000. "Workplace Adjustment and Intergenerational Differences between Matures, Boomers, and Xers." *Nursing Economics* 18(1): 7–13.
- Sherman, R.O. 2005. "Growing Our Future Nursing Leaders." *Nursing Administration Quarterly* 29(2): 125–32.
- Strauss, W. and N. Howe. 1991. *Generations: The History of America's Future, 1584 to 2069*. New York: William Morrow.
- Stuenkel, D.L., J. Cohen and K. de la Cuesta. 2005. "The Multigenerational Nursing Workforce." *Journal of Nursing Administration* 35(6): 283–85.
- Tourangeau, A.E., A.L. Coghlan, J. Shamian and S. Evans. 2005. "Registered Nurse and Registered Practical Nurse Evaluations of Their Hospital Practice Environments and Their Responses to These Environments." *Canadian Journal of Nursing Leadership* 18(4): 54–69.
- Tourangeau, A.E. and L. Cranley. 2006. "Nurse Intention to Remain Employed: Understanding and Strengthening Determinants." *Journal of Advanced Nursing* 55(4): 497–509.
- Tourangeau, A.E., L. McGillis Hall, D.M. Doran and T. Petch. 2006. "Measurement of Nurse Job Satisfaction Using the McCloskey–Mueller Satisfaction Scale." *Nursing Research* 55(2): 128–36.
- Wieck, K.L., M. Prydun and T. Walsh. 2002. "What the Emerging Workforce Wants in Its Leaders." *Journal of Nursing Scholarship* 34(3): 283–88.
- Yin, J.T. and K.A. Yang. 2002. "Nursing Turnover in Taiwan: A Meta-analysis of Related Factors." *International Journal of Nursing Studies* 39(2): 573–81.
- Zemke, R., C. Raines and B. Filipczak. 2000. *Generations at Work: Managing the Clash of Veterans, Boomers, Xers and Nexters in Your Workplace*. New York: Amacom.