

Turnover Intention Among New Nurses

A Generational Perspective

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With the current nursing shortage, it is crucial to understand the aspects of the nursing work environment that are related to turnover in new generation nurses. The Practice Environment Scale of the Nursing Work Index was administered to new nurses in Quebec from different generations to determine what domains of the work environment were related to turnover intention. Results can help nurses in leadership and development positions target interventions to retain new graduates.

Predictive modeling has revealed a warning that the nursing profession in many countries will face another serious shortage in the coming years (Duffield & O'Brien-Pallas, 2003; Goodin, 2003; O'Brien-Pallas & Hayes, 2008). This nursing shortage is occurring in a work environment with increased patient acuity, high patient loads, perception of limited management support, and dissatisfaction among nurses (O'Brien-Pallas & Hayes, 2008). Fortunately, despite these difficulties, many young people are still pursuing studies in nursing, and in the midst of the chaos, the nursing profession is welcoming a new generation of nurses, members of Generation Y, born between 1981 and 2000 and also known as the Net Generation, Millennials, Nexters, Bridgers, and Echo Boomers (Stuenkel, Cohen, & Cuesta, 2005). Generation X nurses are born between 1965 and 1980 (or between 1961 and 1980 depending on the definition; Boychuk Duchscher & Cowin, 2004; Howe & Strauss, 2000). Health-

care organizations are now challenged to retain the new Generation Y nurses and to understand why they are leaving their nursing careers prematurely (Lavoie-Tremblay et al., 2008).

Although a variety of factors (e.g., individual personality differences, physical work space) have been found to influence turnover, the “nursing work environment” is strongly related to turnover (Hayes et al., 2006; Irvine & Evans, 1995). The relationship between turnover and nursing work environment first emerged in the literature in the Magnet hospital studies from the 1980s (McClure, Poulin, Sovie, & Wandelt, 1983). Various aspects of the work environment were related to decreased job turnover and increased employee satisfaction in Magnet hospitals as compared with those without a Magnet designation. Magnet hospital studies have demonstrated that work environment is associated with improved patient care and nurse retention (Buchan, 1999; Fuszard, Green, Kujala, & Talley, 1994). This evidence from the Magnet hospital experience demonstrates the necessity of examining nursing practice environments (Friese, 2005). However, few studies investigated the perception of the work environment on the basis of Magnet hospital factors and the intent to quit among the new generation of nurses. In this article, the authors address this issue by investigating the practice work environment and the intent to quit among new nurses from Generation Y and suggesting strategies to reduce nurses' turnover.

LITERATURE REVIEW

It has been shown that new graduate nurses have a higher turnover rate within the first year of practice (35%–61%) compared with the average reported turnover rate of 8.4% for registered nurses in 2007 (Halfer & Graf, 2006; PricewaterhouseCoopers' Health Research Institute, 2007) in one sample. Thus, there has been a call for inquiry into the new graduate nurse experience that extends beyond the initial orientation phase. Several researchers have examined the direct (Beecroft, Dorey, & Wenten, 2008) or indirect (Beecroft et al., 2008; Halfer & Graf, 2006; Kovner et al., 2007; Suzuki, Itomine, Saito, Katsuki, & Sato, 2008; Wangenstein, Johansson, & Nordstrom, 2008) relationships between work environment and turnover with new graduate nurses.

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In one study of new nurses, 22% of respondents cited the work environment as the reason for leaving their first job (Bowles & Candela, 2005). Specific aspects of the work environment that led to a decision to leave were the lack of support and guidance, concerns about hospital management, and being given too much responsibility too early. Halfer and Graf (2006) examined new graduate nurses' perceptions of the work environment and job satisfaction in the first 18 months of employment. There was a 20% turnover after 12 months. Scheduling and staffing were integrally linked to job satisfaction (Halfer & Graf, 2006). Beecroft et al. (2008), who performed a multivariate analysis examining various aspects of the work environment on new nurses' intent to leave work, included control over practice (autonomy, decision making) and opportunities for advancement and promotion (empowerment, job satisfaction) in their description of the nurse work environment. Findings indicated that within the work environment factors, overall satisfaction with the job and with pay were related to decreased likelihood of job turnover.

Recently, researchers have examined the relationship between practice environment and nurse job turnover, specifically from a generational perspective. Generation Y was raised in the "Era of the Child" (Kupperschmidt, 2006), with parents who nurtured and structured their lives (Sherman, 2006). They are characterized as being self-sufficient, inquiring, and technologically advanced (Walker et al., 2006). Their older peers from Generation X born between 1965 and 1980 (or between 1961 and 1980) are "skeptical, cynical, anti-institutional, nonconformist, and radically individualistic" (Boyчук Duscher & Cowin, 2004, p. 496). They were raised in families where parents were often preoccupied with work; thus, these children became self-reliant from an early age (Weston, 2001).

The way individuals from each generation act at work depends not only on their perceptions of the practice environment but also on whether their distinct generational values are supported in that environment (Farag, 2008). Perceptions of the work environment vary between generations and consequently may differentially affect turnover. Stuenkel et al. (2005) examined generational differences in perceptions of the practice environment among Baby Boomers and Generation X nurses. Generation X nurses perceived more support from superiors than did Baby Boomers. These findings were in contrast to a study by Farag (2008) performed with nurses from three non-Magnet community hospitals in the United States. There were statistically significant differences between nurses from two age groups in the study by Farag in the nurses' perceptions of administrative support and warmth and belonging. Older nurses were more likely to perceive that the practice environment promoted a sense of belonging, and they also felt well supported by hospital administration.

With regard to turnover per se, nurses born after 1975 most often expressed dissatisfaction with the organizational system and reported this as another reason they would leave a job as reported by Takase et al. (2009). Specifically, they reported a perceived lack of opportunity for professional improvement and inadequate working conditions, including excess workloads and stressful interactions with nurse and physician colleagues.

NURSING PRACTICE ENVIRONMENT

Nursing job turnover has been conceptualized by a variety of models (Hinshaw, Smeltzer, & Atwood, 1987; Price & Mueller, 1981). Clearly, certain scholars believe that the practice environment may have a stronger relationship to job satisfaction and intent to stay for nurses than personal variables such as experience, length of tenure, or age (Irvine & Evans, 1995). This current study used the Practice Environment Scale of the Nursing Work Index (PES-NWI) as a framework for examining the work environment and how it influences turnover in Generation Y nurses. The PES-NWI provides a profile of five key domains in the nursing practice environment of the Magnet Hospitals and includes (a) nurse participation in hospital affairs, (b) nursing foundations for quality of care, (c) nurse manager ability, leadership, and support of nurses, (d) staffing and resource adequacy, and (e) collegial nurse-physician relations (Lake, 2002).

THE STUDY

Aim

The aim of this correlational descriptive design study was to investigate which domains of the nursing practice work environment influence the intent to leave a job among Generation Y new nurses.

Participants

In April 2007, the principal researcher and the research assistant contacted all the directors and deans of the English and French language colleges and universities in Quebec, Canada, by telephone or e-mail. In Quebec, students have the option of pursuing a technical college diploma in nursing (a 3-year postsecondary program) or completing a 2-year college science preparatory program and then a 3-year bachelor of nursing degree. The objective of the study was explained, and the directors who agreed to participate named a key resource person. The research assistant contacted the resource people to determine if they would be amenable to distributing the questionnaires in their classes. If they agreed, questionnaires, information and consent forms, and a return envelope were provided. Students who agreed to participate were offered time in class to complete the documents, which were then collected and returned via courier. In some cases,

questionnaires were distributed directly to students (when the examination period had started for example). The 10-minute questionnaire was developed by the Nursing Health Services Research Unit (2004) and included questions about the students' actual and future career plans, the preferred work environments, and the challenges faced as they were to enter the workforce. The last question on the questionnaires asked the students to provide their e-mail addresses so they could be invited to participate in a follow-up study 8 months later about their retention in their new nursing jobs. Thirty-three colleges and one university in Quebec, Canada, participated in this study. A total of 1,005 graduating nurses completed the first questionnaire in class and 485 students provided their e-mail addresses.

Data Collection

The 485 participants who provide their e-mail addresses were invited via e-mail to log on to an online survey Web site to complete the questionnaire created by the research team. Questions addressed the work environment, the turnover intentions, and the demographics. A reminder e-mail was sent 2 weeks after the first one to maximize the response rate. A total of 150 participants completed the survey, and all questionnaires were completed adequately. Thus, the response rate was 31.3%. However, only 145 participants were selected to be a part of the study. Five participants were excluded. Four participants actually represented the Baby Boomer generation and were consequently too old. One participant neglected to give his or her age.

Study Instruments

Sociodemographic variables

Sociodemographic data were collected from all participants. Participants were asked to report their age, gender, and academic background. Participants were grouped into age categories that were established by the provincial nursing licensing board. The category 24 years old or less represented Generation Y (born after 1981/1984); the category 25 to 44 years old represented Generation X (born between 1961 and 1965–1980). Respondents also indicated the type of institution for which they currently worked, their job title and department, and their employment status and usual schedule type.

Practice environment scale of the nursing work index

The 31-item PES-NWI (Lake, 2002) was used in this study. This is a revised version of the original 65-item tool. The PES-NWI contains five subscales that measure key domains in the hospital environment that support professional nursing practice: nurse participation in hospital affairs, nursing foundations for quality care, nurse

manager ability, leadership and support of nurses, and collegial nurse–physician relations (Lake, 2002). Items are rated on a 4-point Likert-type scale, with anchors ranging from 1 (*strongly disagree*) to 4 (*strongly agree*). The neutral midpoint of the scale is 2.5. The PES-NWI has been examined and compared with other tools measuring the nursing practice environment (e.g., Revised Nursing Work Index, Work Environment Scale, and Job Characteristics Inventory) and has been proposed as the most useful of these tools (Lake, 2007). As an indicator of reliability, Cronbach's alphas were calculated for each subscale. The researchers obtained an alpha of .82 for "nurse participation in hospital affairs," .73 for "nursing foundations for quality care" and "nurse manager ability," .79 for "leadership and support of nurses" domain, and lastly .87 for "collegial nurse–physician relations." This is similar to the values obtained in other studies (Lake, 2007). For turnover intention, a global measure of an individual's intention to leave his or her employment or profession was a single, dichotomous, yes/no question.

ETHICAL CONSIDERATIONS

The study was approved by the institutional review board at McGill University. All participants received an e-mail explaining the purpose and the procedures of the study. Consent to participate was assumed by the respondents' choice to complete the questionnaire on the Web site. Respondents' participation remained strictly confidential. All data gathered from the Web survey were coded into a database separate from the e-mail addresses that could identify participants.

DATA ANALYSIS

First, descriptive statistics were calculated for all variables. Then, univariate analyses of variance were done to evaluate if there were differences on the PES-NWI subscales scores. To address the aim, the researchers performed point-biserial correlation analysis to assess the degree of association between the five PES-NWI subscales and intent to leave the current position or the profession. The researchers performed cross-tabulations with chi-square tests ($p = .05$) to describe the association between the age groups and both intent to quit variables. All the aforementioned analyses were conducted using the Statistical Package for the Social Sciences (Version 16; SPSS Inc., Chicago, IL).

RESULTS

Of the 145 final participants, the majority were women ($n = 124$; 85.5%). A total of 86 participants were 24 years or younger (58.3%), thereby making them members of Generation Y. Fifty-nine were between 25 and 44 years old (40.7%), members of Generation X. In terms of educational preparation, 64.8% ($n = 94$) had attended a

TABLE 1 Mean Differences Between Age Groups on Each of the PES-NWI Subscales and Overall Sample Results

Age Group (years)	Nurse Participation in Hospital Affairs			Nursing Foundations for Quality Care			Nurse	Manager	Ability
	M	SD	F	M	SD	F	M	SD	F
15–24	2.74	0.45	<1	2.89	0.42	<1	2.82	0.49	<1
25–44	2.76	0.42		2.89	0.35		2.80	0.52	
Total	2.75	0.44		2.89	0.39		2.81	0.50	
	Leadership and Support of Nurses			Collegial Nurse–Physician Relations					
15–24	2.28	0.64	<1	2.90	0.60	<1			
25–44	2.22	0.55		2.84	0.58				
Total	2.26	0.60		2.88	0.59				

Note. PES-NWI = Practice Environment Scale of the Nursing Work Index.

college-level nursing program, 34.5% ($n = 50$) were attending or had graduated from a university program, and 0.7% ($n = 1$) had a master's degree. With regard to employment status, 22.4% ($n = 32$) were full-time employees, 35.7% ($n = 51$) worked part time, and 42.0% ($n = 60$) had part-time occasional status. More than half ($n = 79$; 55.3%) worked on rotating shifts, 28.0% ($n = 40$) on evening shift, 10.5% ($n = 15$) on night shift, and 6.3% ($n = 9$) on day shift. The majority were working in a teaching hospital ($n = 71$; 49.0%) or in a health and social services center ($n = 63$; 43.4%). A few were working in a university-affiliated hospital ($n = 187$; 11.7%). Note that it was possible for a single respondent to work different shifts in more than one hospital or organization at a time. Although almost half of the participants intended to quit their current position ($n = 71$; 49.0%), few intended to quit the profession as a whole ($n = 14$; 9.7%). Scores for each of the PES-NWI subscales are presented in Table 1. For the whole sample, results are slightly positive for "nurse participation in hospital affairs," "nursing foundations for quality care," "nurse manager ability," and "collegial nurse–physician relations" domains. Participants reported slightly negative impressions of "leadership and support of nurses" as indicated by the mean response below the median value. Analyses of variance revealed that there are no significant differences on the PES-NWI on the basis of age group category.

Results of the point-biserial correlations analyses performed between the PES-NWI domains and the various intent to quit groups are shown in Table 2. The coding for intent to quit data was "0" for the participants who wanted to quit and "1" for the ones who wanted to stay. Thus, a ne-

gative correlation means that when the PES-NWI score is low, there is a relationship with intent to quit. With regard to intent to quit the current position, statistically significant associations were obtained for "nurse participation in hospital affairs," "nursing foundations for quality care," and "collegial nurse–physician relations." Significant results were obtained for all five domains when they were associated with the intent to quit the profession category. Significant correlations ranged between $-.15$ and $-.24$, thus indicating weak relationships between variables.

TABLE 2 Point-Biserial Correlations Between the PES-NWI Subscales and the Intent to Quit

	Intent to Quit Current Position (r_{pb})	Intent to Quit Profession (r_{pb})
Nurse participation in hospital affairs	$-.17^*$	$-.19^*$
Nursing foundations for quality care	$-.15^*$	$-.24^{**}$
Nurse manager ability	$-.09$	$-.24^{**}$
Leadership and support of nurses	$-.09$	$-.23^{**}$
Collegial nurse–physician relations	$-.16^*$	$-.16^{**}$

Note. PES-NWI = Practice Environment Scale of the Nursing Work Index.
 $^*p < .05$.
 $^{**}p < .01$.

The chi-square analyses between age groups and the intent to quit categories revealed no statistically significant relationships (see Table 3).

DISCUSSION

Generational Perspectives on Practice Environment and Turnover

The current study found no difference between new nurses from Generations Y and X in terms of intentions to quit the nursing profession or their current position, similar to reports by Chan and Morrison (2000). This is contrary to the inverse relationship between age and turnover that has been documented for many years in the past (Kiyak, Namazi, & Kahana, 1997; Lowery & Jacobsen, 1984). This previous finding was attributed to the fact that older nurses had increased job satisfaction and organizational commitment compared with their younger peers (McNeese-Smith & van Servellen, 2000). However, given the fact that all nurses in this sample were novices with approximately the same length of service, comparisons cannot be made directly. In this study, statistically significant correlations were found between low scores on the subscales of the PES-NWI (“nurse participation in hospital affairs,” “nursing foundations for quality care,” and “collegial nurse–physician relations”) and intention to quit the current nursing position. Significant results were obtained for all five subscales when they were associated with the intent to quit the profession. However, there were no differences as a function of age in this study.

The fact that there were no differences as a function of age is an important finding. Farag (2008) reported differences in the way nurses of varying ages perceived the practice environment. Older nurses perceived their environments as one of warmth and belonging, and they felt they were well supported by hospital administration. To support this, there were statistically significant differences

between the older and the younger nurses in their perceptions of administrative support and warmth and belonging. These two aspects of the work environment explained approximately 27% of the variance in nurses’ intention to quit. However, the Farag study did not control for years of work experience as a nurse. That is, the added years of experience rather than age per se may be the mediating factor that explained these differences.

Takase et al. (2009) studied nurses in two different age cohorts that roughly parallel the Generations X and Y divide. For nurses born after 1975, losing the “confidence to care” made them consider job turnover. Their specific dissatisfaction was attributed to a lack of opportunity to grow and conflict or concerns about management interventions. In this current study, both younger and older new graduates who reported low scores on the PES-NWI were more likely to state they would leave the profession. These findings suggest that generational differences may be less important than the actual work environment that the new nurses experience in explaining turnover intention. Thus, interventions to retain new nurses might not necessarily need to be created with specific generations in mind. Interventions to improve the work environment as a whole by addressing the specific needs of new nurses regardless of their ages may be what are needed to retain Generations Y and X.

Interventions to Promote Retention in New Graduate Nurses

In this study, characteristics of the work environment affect turnover intentions in new graduates regardless of their age. Nurses in staff development who can focus interventions on the work environment by creating more Magnet-like environments are likely to reduce turnover intention in all new hires. For example, nurses in this study reported through their responses on the questionnaire that the absence of foundations for quality of care was related to their decision to leave their current position. Other studies have indicated similarly the importance of providing new graduates with the opportunity to develop as nurses who can provide quality care through professional development activities and adequate supervision (Lavoie-Tremblay, Leclerc, Marchionni, & Drevniok, 2010; Wangensteen et al., 2008). The use of orientation and preceptorship programs that extend beyond an initial few weeks are key to retaining new graduates (Halfer & Graf, 2006; Lavoie-Tremblay et al., 2010). The need for professional development opportunities is related to the finding that low levels of perceived social support in Generation Y nurses contributes to psychological distress (Lavoie-Tremblay et al., 2008). New nurses reported that they need positive experiences and social support (Wangensteen et al., 2008).

Furthermore, a culture of collegial nurse–physician relationships that result in a perception of teamwork and a

TABLE 3 Cross-table and Chi-square Tests Between Age Groups and the Intent to Quit

Age Group (years)	Intent to Quit (Position)	Intent to Stay (Position)	χ^2	df
	<i>n</i>	<i>N</i>		
15–24	45	41	<1	1
25–44	29	30		
	Intent to Quit (Profession)	Intent to Stay (Profession)		
	<i>n</i>	<i>N</i>		
15–24	6	80	<1	1
25–44	8	50		

nonthreatening work environment, for example, may be an important precursor to increasing perceived social support in new nurses. Opportunities for recognition and reward above and beyond salary are important for Generation Y nurses in particular (Lavoie-Tremblay et al., 2010). The lack of perceived rewards is a source of distress (McVicar, 2003), especially because Generation Y nurses, who will be making up the greatest proportion of new hires in future years, want to work in organizations where they feel they are valued and rewarded (Glass, 2007). This underscores the need to involve new nurses in unit and hospital-wide committees, for example, where they have the opportunity to make their voices heard. Empowering and valuing new nurses promotes a sense of belonging from the beginning to reduce turnover as indicated in this study. Nursing students, before even entering the profession, are aware of the shortage of registered nurses and believe that this shortage will decrease the quality of care and working conditions while increasing nurse stress (Buerhaus, Donelan, Norman, & Dittus, 2005). Clearly, with these beliefs in place before even entering the workplace, interventions to improve the psychosocial work environment are critical for these new hires. These interventions should not be targeted at one generation alone and will be most influential when deemed to be an institutional priority (Bourbonnais, Brisson, Vinet, Vezina, & Lower, 2006).

STUDY LIMITATIONS

The study was limited by a small response rate. It would be pertinent to replicate this study with a larger sample that includes nurses from different academic backgrounds and geographical jurisdictions. This study was also limited by the fact that only members of Generations Y and X participated. The Baby Boomers, who make up a large proportion of the nursing workforce (Canadian Institute for Health Information, 2007), were not included. This limited the analysis on the basis of generational differences.

CONCLUSIONS

Understanding the factors that contribute to turnover intentions in new graduates is essential for nurses in staff development who want to increase employee retention. This study found there were no differences in Generation Y and X nurses with respect to their perceptions of the nursing work environment and their intention to leave their position or the profession. Studies to test interventions to promote the retention of Generation Y nurses, by improving the work environment to meet their needs, for example, must now be done to ensure that this cohort is not lost before these nurses have found their niche in nursing.

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References

- Beecroft, P. C., Dorey, F., & Wenten, M. (2008). Turnover intentions in new graduate nurses: A multivariate analysis. *Journal of Advanced Nursing*, 62(1), 41–52.
- Bowles, C., & Candela, L. (2005). First job experiences of recent RN graduates: Improving the work environment. *Journal of Nursing Administration*, 35(3), 130–137.
- Bourbonnais, R., Brisson, C., Vinet, A., Vezina, M., & Lower, A. (2006). Development and implementation of a participative intervention to improve the psychosocial work environment and mental health in an acute care hospital. *Occupational and Environmental Medicine*, 63, 326–334.
- Boychuk Duchscher, J. E., & Cowin, L. (2004). Multigenerational nurses in the workplace. *Journal of Nursing Administration*, 34(11), 493–503.
- Buchan, J. (1999). Still attractive after all these years? Magnet hospitals in changing healthcare environment. *Journal of Advanced Nursing*, 30(1), 100–108.
- Buerhaus, P. I., Donelan, K., Norman, L., & Dittus, R. (2005). Nursing students' perceptions of a career in nursing and impact of a national campaign designed to attract people into the nursing profession. *Journal of Professional Nursing*, 21(2), 75–83.
- Canadian Institute for Health Information. (2007). *Workforce trends of registered nurses in Canada, 2006*. Ottawa, Canada: Author.
- Chan, E.-Y., & Morrison, P. (2000). Factors influencing the retention and turnover intentions of registered nurses in a Singapore hospital. *Nursing and Health Sciences*, 2(2), 113–121.
- Duffield, C., & O'Brien-Pallas, L. (2003). The causes and consequences of nursing shortages: A helicopter view of the research. *Australian Health Review*, 26(1), 186–193.
- Farag, A. A. (2008). *Multigenerational nursing workforce value differences and work environment: Impact on RNs' turnover intention*. Cleveland, OH: Case Western Reserve University.
- Friese, C. R. (2005). Nurse practice environments and outcomes: Implications for oncology nursing. *Oncology Nursing Forum*, 32(4), 765–773.
- Fuszard, B., Green, E., Kujala, K., & Talley, B. (1994). Rural Magnet hospitals of excellence: Part 1. *Journal of Nursing Administration*, 24(1), 21–26.
- Glass, A. (2007). Understanding generational differences for competitive success. *Industrial and Commercial Training*, 39, 98–103.
- Goodin, H. J. (2003). The nursing shortage in the United States of America: An integrative review of the literature. *Journal of Advanced Nursing*, 43(4), 335–343.
- Halfer, D., & Graf, E. (2006). Graduate nurse perceptions of the work experience. *Nursing Economic\$, 24(3)*, 150–155.
- Hayes, L. J., O'Brien-Pallas, L., Duffield, C., Shamian, J., Buchan, J., Hughes, F., et al. (2006). Nurse turnover: A literature review. *International Journal of Nursing Studies*, 43(2), 237–263.
- Hinshaw, A., Smeltzer, C., & Atwood, J. (1987). Innovative retention strategies for nursing staff. *Journal of Nursing Administration*, 17(6), 8–16.
- Howe, N., & Strauss, W. (2000). *Millennials rising: The next great generation*. Toronto, Canada: Random House.
- Irvine, D. M., & Evans, M. G. (1995). Job satisfaction and turnover among nurses: Integrating research findings across studies. *Nursing Research*, 44(4), 246–253.
- Kiyak, H. A., Namazi, K. H., & Kahana, E. F. (1997). Job commitment and turnover among women working in facilities serving older persons. *Research on Aging*, 19(2), 223–246.
- Kovner, C. T., Brewer, C. S., Fairchild, S., Poornima, S., Kim, H., &

- Djukic, M. (2007). Newly licensed RNs' characteristics, work attitudes, and intentions to work. *American Journal of Nursing, 107*, 58–70.
- Kupperschmidt, B. R. (2006). Addressing multigenerational conflict: Mutual respect and carefronting as a strategy. *Online Journal of Issues in Nursing, 11*(2), Manuscript 3. Retrieved from www.nursingworld.org/MainMenuCategories/ANAMarketplace/ANAPeriodicals/OJIN/TableofContents/Volume112006/No2May06/tpc30_316075.aspx
- Lake, E. (2002). Development of the practice environment scale of the nursing work index. *Research in Nursing & Health, 25*(3), 176–188.
- Lake, E. (2007). The nursing practice environment: Measurement and evidence. *Medical Care Research and Review, 64*, 104S–122S.
- Lavoie-Tremblay, M., Leclerc, E., Marchionni, C., & Drevniok, U. (2010). The needs and expectations of Generation Y nurses in the workplace. *Journal for Nurses in Staff Development, 26*(1), 2–8.
- Lavoie-Tremblay, M., Wright, D., Desforges, N., Gelinas, C., Marchionni, C., & Drevniok, U. (2008). Creating a healthy workplace for new generation nurses. *Journal of Nursing Scholarship, 40*(3), 290–297.
- Lowery, B. J., Jacobsen, B. S. (1984). On the consequences of over-turning turnover: A study of performance and turnover. *Nursing Research, 33*(6), 363–367.
- McClure, M. L., Poulin, M. A., Sovie, M. D., & Wandelt, M. A. (1983). *Magnet hospitals: Attraction and retention of professional nurses*. Kansas City, MO: American Nurses Publishing.
- McNeese-Smith, D. K., & van Servellen, G. (2000). Age, developmental, and job stage influences on nurse outcomes. *Outcomes Management for Nursing Practice, 4*(2), 97–104.
- McVicar, A. (2003). Workplace stress in nursing: A literature review. *Journal of Advanced Nursing, 244*, 633–642.
- Nursing Health Services Research Unit. (2004). *Educated and underemployed: The paradox for nursing graduates*. Interim Report. Retrieved September 21, 2009, from <http://www.nhsru.com/documents/graduating%20nursing%20students.pdf>
- O'Brien-Pallas, L., & Hayes, L. (2008). Challenges in getting workforce research in nursing used for decision-making in policy and practice: A Canadian perspective. *Journal of Clinical Nursing, 17*, 3338–3346.
- Price, J. L., & Mueller, C. W. (1981). A causal model of turnover for nurses. *Academy of Management Journal, 24*(3), 543–565.
- PricewaterhouseCoopers' Health Research Institute. (2007). *What works: Healing the healthcare staffing shortage*. Retrieved September 21, 2009, from <http://pwchealth.com/cgi-local/hregister.cgi?link=reg/pubwhatworks.pdf>
- Sherman, R. O. (2006). Leading a multigenerational nursing workforce: Issues, challenges, and strategies. *Online Journal of Issues in Nursing, 11*(2), Manuscript 2. Retrieved from www.nursingworld.org/MainMenuCategories/ANAMarketplace/ANAPeriodicals/OJIN/TableofContents/Volume112006/No2May06/tpc30_216074.aspx
- Stuenkel, D., Cohen, J., & Cuesta, K. (2005). The multigenerational nursing work force: Essential differences in perception of work environment. *Journal of Nursing Administration, 35*(6), 283–285.
- Suzuki, E., Itomine, I., Saito, M., Katsuki, T., & Sato, C. (2008). Factors affecting the turnover of novice nurses at university hospitals: A two year longitudinal study. *Japan Journal of Nursing Science, 5*, 9–21.
- Takase, M., Oba, K., & Yamashita, N. (2009). Generational differences in factors influencing job turnover among Japanese nurses: An exploratory comparative design. *International Journal of Nursing Studies, 46*(7), 957–967.
- Walker, J. T., Martin, T., White, J., Elliot, R., Norwood, A., Mangum, C., et al. (2006). Generational (age) differences in nursing students' preferences for teaching methods. *Journal of Nursing Education, 45*, 371–376.
- Wangensteen, S., Johansson, I. S., & Nordstrom, G. (2008). The first year as a graduate nurse—An experience of growth and development. *Journal of Clinical Nursing, 17*(14), 1877–1885.
- Weston, M. (2001). Coaching generations in the workplace. *Nursing Administration Quarterly, 25*(2), 11–21.