Abstract

Background: Mid-career nurses continue to be overlooked in the current nursing shortage which is amplified in intensive care units (ICUs) requiring greater numbers of specialized nurses.

Objectives: The aim of this exploratory study was to discover what mid-career critical care nurses perceived would be effective retention strategies for themselves and their colleagues.

Method: As a combination of both qualitative and quantitative approaches, Q-methodology was used to allow for the development of innovative strategies as well as provide an understanding of a population of viewpoints and preferences which can guide retention efforts. Forty ICU nurses between the ages of 25 and 44 from within a Canadian academic health science corporation completed a 45-item Q-sort representing their ideas for increasing staff retention. Data was analyzed using centroid factor extraction and varimax rotation in PQ Method version 2.11.

Results: Four salient viewpoints emerged: The Healthy Workplace and Respect Seeker, The Flexibility and Reward Seeker, The Professional Development and Teamwork Seeker and The Lifestyle Seeker. Correlations between the factors were appropriately weak, with seemingly distinct demographics characterizing each.

Discussion: These findings suggest a possible association between perceptions and both years of nursing experience as well as age. Implications from the study include the need to involve frontline nurses in developing strategies that will retain them. Following further investigation of the nurses’ preferred strategies, it may also be necessary for organizations to develop an array of retention strategies that staff can individually select from, rather than implementing a one-size-fits-all solution. Future research should further explore generational preferences as well as the possible dissonance between nurse managers and frontline nurses’ perceptions.

Key Words: Retention, turnover, Q-methodology, mid-career, critical care
Nurses are essential to the delivery of health care in any nation. In Canada they make up over one third of all health care professionals in the country (Advisory Committee on Health Human Resources, 2002). Despite their pivotal role at all levels in the health care system, the Canadian Nurses’ Association is predicting a shortfall of 60,000 nurses by 2022 (2009). This shortage is exacerbated in intensive care units where elevated nurse-patient ratios and the use of advanced technologies require greater numbers of highly educated, specialized nurses (Fisher, Baumann, Hunsberger, Blythe & Fitzpatrick, 2008). Under the pressure of tightening budgets, and the imminent exodus of the baby boomer generation, retention of these nurses is paramount. Nurse retention is particularly important as the contemporary cohort of mid-career nurses (ages 25-44) in Ontario are confronted with newly-graduated and retiring nurses benefitting from current government initiatives. Nurses in this intermediate cohort have “the professional memory that employers count on, the expertise that patients…require, and the…wisdom that new nurses depend on for coaching, mentoring and support” (Donner & Wheeler, 2001, p. 27).

Consequently, concerted efforts may be necessary to retain the current critical care nursing workforce with increased focus on the mid-career critical care nurse.

In order to begin exploring solutions, the purpose of this study was to identify mid-career critical care nurses viewpoints regarding effective retention strategies.

**Background**

Critical care units are reporting frontline personnel shortages and particularly high rates of nursing staff turnover (26%) (Strachota et al., 2003). In this study the most common reasons reported by respondents for changing their employment status (full to part time or resignation) were their work hours, and workloads resulting in compromised patient care (Strachota et al., 2003). Cartledge (2001) explored factors that influence the turnover of nurses in intensive care
units (ICUs) within the United Kingdom identifying four significant categories. These included stress from regular death and tragedy, as well as from the “intense nature and pace of the work” (Cartledge, 2001, p. 351); inadequate “professional development” (p. 352); “implications of shift work” (p.353) and a “lack of recognition and respect from others” (p.352). Stone et al. (2006) also found that 17% of the ICU nurse respondents indicated an intention to leave within the coming year. Some of the factors that contributed to dissatisfaction with working conditions included compromised professional practice, ineffective nursing management, staffing and resource inadequacy, lacking nursing process, and unacceptable scheduling (Stone et al., 2006).

Nurse attrition is influenced by a number of demographic factors. Buerhaus, Staiger and Auerbach (2000) explored the interaction between the aging workforce and issues in ICUs driving the nursing shortage. The authors state that ICUs have historically attracted younger RNs because of their challenge and excitement, however in Canada in 2005, only 10.1% of Canadian nurses were under the age of 30 (CNA, 2005).

Mitigating potential turnover is particularly important in light of the effects it can have on health care organizations. Costs associated with nursing turnover are realized both fiscally and in terms of patient care. A review of the literature suggests that the costs of nurse turnover likely range from about $22,000 to $64,000 (USD) per case (Bland-Jones, 2005; Stone et al., 2003). Bland-Jones (2005) suggests that the cost incurred for each nurse who leaves is approximately 1.3 times her salary. Because critical care nurses are considered “specialty nurses” as a result of their additional skills and training, the Advisory Board Company (2000) states that their turnover costs fall at the higher end of these salary ranges. These budgetary challenges can be accompanied by “heightened pressure on nurses to work in an increasingly fractured and
dissatisfactory environment” (International Council of Nurses, 2010). This underscores the importance of keeping staff turnover at a minimum.

The widespread shortage of nurses has prompted research regarding retention strategies for the workforce as a whole. Based on a study of retention strategies for mid-career nurses in both acute and ‘aged care’ settings, Mosely, Jeffers and Patterson (2008) suggest that recognition, managerial characteristics, autonomy, career development, valuing expertise, providing challenges, sense of community, work demands, and scheduling are the most pertinent factors related to nursing retention. Nurses surveyed by Alspach (2007) indicated that the three top factors influencing their intent to remain were pay, benefits, and flexible scheduling. Lavoie-Tremblay, O’Brien-Pallas, Viens, Hamelin Brabant and Gelinhas (2006) also explored retention strategies for the entire multigenerational workforce. Focus group sessions involving 1200 nurses identified incentives such as ensuring optimum psychosocial demands, sufficient decision-making latitude, support from superiors and colleagues, balance between efforts and rewards, predictability and meaning of work to encourage their retention. Finally, in a review of studies that tracked the strategies used by Magnet Facilities, Upenieks (2005) found that key organizational characteristics influencing retention included decentralized organizational structures, an emphasis on participatory management, valuing professional nursing practice, autonomy, career development opportunities, supportive leadership, recognition, and flexible scheduling. Coshow, Davis and Wolosin (2008) investigated RN job satisfaction as a function of their tenure and found that employee satisfaction was higher at the beginning and end of their careers (with those in the middle being significantly less content).

Due to the pace, staff mix and job intensity that exists in critical care units, as well as the unique stage of personal and professional development of the mid-career nurse – existing
literature provides an insufficient repository of strategies that effectively target the retention of this population. There is a paucity of Canadian literature focusing on critical care and mid-career nurses. This study fills a gap in the available literature by identifying attractive retention strategies, and also classifying them according to differing participant perspectives.

**Methods**

**Q-methodology**

Q-methodology was first introduced in 1935 by Stephenson (1935), but has only been more widely embraced in recent decades as a result of advances in the statistical analysis component of the method (McKeown & Thomas, 1988). With the capacity to uncover unique insights into the intricacies of human subjectivity, this methodology is especially valuable in the exploration of human perceptions (Dennis, 1986). It is used to identify distinctive participant viewpoints, as well as areas of overlap and divergence between them. Establishing these opposing views can be instrumental in providing new understanding of a phenomenon (Akhtar-Danesh, Brown, Rideout, Brown & Gaspar, 2007).

As opposed to conventional factor analysis (R methodology), Q-methodology draws on the strengths of both quantitative and qualitative methods involving the correlation and factoring of *persons* rather than *traits* (Brown, 1980). This systematic study of subjectivity seeks to discover *how* and *why* rather than how many people hold to certain beliefs, identifying aggregate viewpoints with little interference from the research team (Brown 1993). In this type of study, the main objective is to uncover these patterns of thought, not to test their proportional distribution within the greater population (Brown, 1993). As a result, Q-studies require relatively small samples and employ purposive sampling to capture the greatest number of distinct viewpoints possible. To date, it has been successfully applied to a wide variety of nursing studies.
In Q-methodology Brown (1993) suggests that between 40-60 participants are more than adequate for most studies, with some requiring far fewer. The correlation and factoring of persons, which characterizes this methodology, groups participants according to the relatedness of their Qsorts to reveal unique viewpoints comprised of individuals who share similar perceptions (Brown, 1980). Every participant who loads significantly (p < 0.05) and uniquely on one factor is ascribed to it (Akhtar-Danesh, Baumann & Cordingley, 2008). Individuals who load significantly on more than one factor are deemed to be confounded, and along with those who do not load significantly on any factors, are excluded from further analysis.

The emergence of these participant groupings, known as factors, allows for comparisons between individual perceptions, without limiting participants to the previously selected response categories used in survey research (LeCouteur & Delfabbro, 2001). As a result, Q-methodology allows for the development of innovative strategies, providing an understanding of a population of viewpoints and preferences which can guide retention efforts. This methodology was employed because of the exploratory nature of this topic and its ability to provide unique insights into the preferences and perceptions of mid-career critical care nurses. Comprised of two phases, a collection of statements concerning the topic is developed (through interviews, literature, and popular media), and then a representative concourse of these statements is sorted or ranked by participants according to their individual perception. This technique reduces a large number of viewpoints down to a more manageable number of factors which will help ICU managers prioritize target areas to improve retention.

Sample

Nurses from critical care units within the hospitals of a large, multi-site academic health science corporation in Ontario, Canada were recruited for both Phase I and II of the study. The
perspectives relevant to this study were those of full or part time ICU registered nurses between the ages of 25 and 44 with at least one year of critical care experience. Sampling of this distinct group was purposive, with snowball sampling to facilitate the identification of participants for this study (Van Exel & de Graaf, 2005). Van Exel and de Graaf underscore the importance of selecting respondents who are theoretically relevant to the topic of study and who will be able to put forward clear and distinct viewpoints regarding the issue of retention.

**Procedure**

**Identification of statements (Definition of the concourse).**

In Q-methodology, the sample (n) under study is a collection of statements rather than the (number of) participants themselves (Brown, 1993). The concourse employed in this study was drawn primarily from participant interviews involving 20 ICU nurses and supplemented by popular and scientific literature. At the conclusion of each focus group session, nurses were asked to submit up to 10 statements each detailing what they perceived to be effective retention strategies as mid-career critical care nurses. The focus group sessions were digitally recorded and transcribed allowing statements to be extracted from the texts as well.

**Development of the Q-sample (Selection of statements).**

Focus group participants in Phase I produced a collection of 148 written statements. These were supplemented by literature findings (n =231) and transcription extracts (n = 228) for a concourse of 607 initial statements. Statements were reviewed independently by two members of the research team to remove unclear and/or redundant statements and cluster the statements into 7 major categories including: Education, leadership, interprofessional practice, facilities, staffing and scheduling, discounts and unions. This list was then taken to a third research team member to ensure completeness and fidelity of the statements to their originals. This list of
statements was then sent to 5 nurses to review for clarity and completeness. With a revised Q-sample of 45 statements, each one was randomly assigned a number. These statements and their corresponding number were then printed on separate cards – the Q-deck.

**Q-sorting.**

The 45-cell Q-grid was then developed in a quasi-normal distribution to fit each of the 45 statements (See Figure 1). This instrument of data collection was pilot-tested with a sample of 8 mid-career critical care nurses. All stated that the process was straightforward, and they were easily able to complete it with a good understanding of the statements. Their comments about ensuring adequate physical space to complete the sort were taken into account with all of the subsequent participants. Participants were given a letter outlining the objectives of the study and every nurse who completed the Q-sort first read and signed a document ensuring informed consent. Q-sorting was performed individually by each nurse whose task was to sort the statements into 11 piles from -5 (least effective) to +5 (most effective).

**Data Analysis**

The Q-sort data itself also underwent a 3-part analysis in Schmolck’s PQMethod 2.11 (2002). These procedures included correlation, factor analysis plus rotation and the calculation of factor scores. “The analysis of the Q sorts is a purely technical, objective procedure – and is therefore sometimes referred to as the scientific base of Q” (Van Exel & de Graaf, 2005). For the purposes of this study, factors (viewpoints) were extracted using principal component analysis and varimax rotation. PQMethod results were then displayed in a number of output tables including factor matrices, normalized factor scores for each factor, distinguishing statements for each factor, and consensus statements. It is these distinguishing statements which differentiate between factors and were used to develop their descriptions.
Results

A total of 40 nurses participated in this study. They were an average of 37 years of age with an average of 13.8 years of nursing experience, 9.2 of which were spent in critical care. The majority (24) of respondents held a nursing diploma, 14 held a BScN degree; one held another BSc and a single nurse had completed her Masters degree. Of these participants, 35 of the nurses were female, 5 were male and 32 were employed full time while 8 held part-time positions.

Factor 1 (The healthy workplace and respect seeker).

Factor 1 depicts the viewpoint of 17 mid-career critical care nurses who had an average age of 37.8 (SD = 5.9) years and 8.8 (SD = 6.3) years working in critical care. Of these respondents, 16 were female and 13 were practicing with a nursing diploma while 4 held a BScN degree. This group of nurses felt that retention strategies which targeted their work environment and increased the level of respect they experienced were of the highest priority. The five statements which were scored the highest on Factor 1 indicated the nurses’ desire for more reliable patient care equipment, a discounted parking rate, union support, the encouragement of interdisciplinary respect, and workplace ergonomics (See Table 1).

The areas of least importance to this cohort were easier access to information, support and resources. Neither did they highly value lockers, showers or a well-designed staff lounge, indicating instead that they had those things at home and simply needed a space to “call their own at work.” Other statements that these nurses deemed to be less effective included an onsite fitness facility or access to wellness and prevention programs, and reasonably priced childcare conducive to 12-hour shifts.

Moving closer to a neutral score, nurses who loaded on Factor 1 had less interest in being supported in their quest for formal higher education (BScN, Masters or PhD), and did not ascribe
priority to fair rotation to ICU’s other than their own. Also slightly negatively scored was the
idea of creating challenging, innovative roles for nurses to engage in, in order to take advantage
of their wisdom and experience. These three statements indicated a sense of comfort in their
current position. These results suggest that nurses who define this factor feel strongly about their
nursing work environment and the respect they receive therein. They are willing to relinquish
extraprofessional benefits in order to better care for their patients in a respectful environment
where they have some sense of job security.

Factor 2 (The flexibility and reward seeker).

Factor 2 was characterized by 6 nurses who had the highest average age of 40.3 (SD =
4.6) years, with an average of 14.2 (SD = 6.3) years in critical care. Of these respondents 4 were
female and 2 were male with 3 nurses holding diplomas, 2 nurses holding a BScN, and a single
nurse who had obtained a masters degree.

Table 2 shows that the four most significant statements for nurses who adopted this
viewpoint related to recognition and compensation for the committee work they are involved in;
an option for self-scheduling; adequate nurse-patient ratios to meet patient care demands; and
challenging, innovative roles that would take advantage of their wisdom and experience. This
group valued flexibility and reward for their contributions.

The three retention strategies deemed least effective by this group included efforts made
to reduce waste and recycle, union support and a formalized policy for making end-of-life care
decision. These distinguishing statements revealed a group of nurses who believe that retention
efforts can be enhanced by providing staff with flexibility and rewards. Their focus on planning
work around their life instead of the other way around seems not to interfere with the high
standard of care they are determined to provide during working hours.
Factor 3 (The professional development and teamwork seeker).

Factor 3 is a shared viewpoint between four of the nurses sampled whose factor had an average age of 32.5 (SD = 5.4) years and an average of 6.8 (SD = 3.0) years of nursing experience in critical care. Of these respondents, 3 were female, with 2 nurses holding diplomas and the other 2 holding a BScN degree.

As shown in Table 3 they ascribed highest and equal value to the following strategies: encouraging respect between the interdisciplinary team; challenging, innovative roles that would take advantage of their wisdom and experience; management design and support of team-building activities; and a higher pay scale for the advanced knowledge and skills of critical care nurses. At the other end these nurses scored three statements as least effective for retention purposes. These strategies included having an on-site coffee shop open 24 hours a day, discounts in the coffee shop, cafeteria and gift shop, as well as a decrease in the price of monthly parking.

This group perceived that enhancing team dynamics within the ICU setting would be an effective way to increase retention of mid-career critical care nurses. With little regard for ‘luxuries’ at work they perceived critical care training to be important, plus financial remuneration to recognize those extra skills.

Factor 4 (The lifestyle seeker).

Factor 4 is characterized by four nurses who were the youngest group, with an average age of 31.3 (SD = 4.2) years, and an average of 4 (SD = 1.6) years of experience in critical care.

Of these respondents 3 were female with 2 nurses holding diplomas and the other 2 holding a BScN degree. The scoring of Factor 4 statements is outlined in Table 4. The 4 most highly scored statements within this factor, in contrast to the previous three, are all concerned with workplace luxuries. This group of nurses indicated their preferences for an onsite fitness
facility or access to wellness programs, individual lockers, showers and a well designed staff lounge, better discounts at the coffee shop, cafeteria and gift shop as well as a coffee shop that is open 24 hours within the hospital.

Five strategies were considered least effective among nurses who loaded on this factor. These strategies included fair rotation to other ICUs; reasonably priced on-site child care conducive to 12-hour shifts; strictly RN staffing in the ICU; challenging, innovative roles that take advantage of nurses’ wisdom and experience; opportunities for promotion and compensation for involvement in committee work. These results suggest that incentives initiated by managers or the corporation would make these nurses feel appreciated and be effective in retaining them. This group was most concerned with lifestyle factors that would enhance their work experience, while demonstrating less regard for variation or advancement in their work.

Consensus Statement

The single consensus statement that did not distinguish between factors indicated that nurses did not mind transporting patients to other hospitals.

Discussion

Between Factors 2 and 4, despite the small sample size, analysis of variance (ANOVA) tests revealed statistically significant differences between their factor loadings and years of experience in nursing. Factor 2 had the highest average age (40.3 years) and Factor 4 consisted of the youngest nurses (average of 31.3 years). While a larger sample might have detected significance based on more traditionally defined age-based generational distinctions, the notion of experience-based differences raises some interesting issues.

Within Canada, the age profile of the “new graduate nurse” has been changing from year to year. The Canadian Institute for Health Information (2004) reported that nurses who graduated
after the year 2000 had an average age of 28.2 years, compared to nurses in the 1980’s who were
closer to 23.3 years. Many are entering nursing as a career change, after having spent a
considerable amount of time in other careers or out of the workforce entirely (O’Brien-Pallas,
Duffield, & Alksnis, 2004). Coming back to school through “accelerated” (12-18 months) BScN
degree programs, increasing numbers of nurses are subsequently graduating in their late twenties
or early thirties. This complicates traditional age-based generational differences in the workplace.

Nurses who loaded on the two more mature and experienced factors (Factors 1 and 2)
indicated a desire for respect and recognition for their wisdom and experience. Individuals who
loaded significantly on Factor 3 fit well into Jepsen and Dickson’s (2003) career establishment
phase as they demonstrated a desire for advancement and strong relationships within their work
environment. Finally Factor 4 was characterized by the youngest, least experienced nurses who
could accurately be labeled as generational “Millenials” seeking a seamless integration of their
work life and leisure time (Boychuk Duchscher & Cowin, 2004).

The study demonstrates the importance of understanding the nursing workforce profile
and recognizing that “one size does not fit all” when it comes to designing strategies for nursing
retention in critical care. Within the mid-career group alone, nurses appear to desire distinctly
diverse things from their places of employment. These differing priorities will require strong and
intentional leadership to continually identify and respond to them. There are however important
commonalities: respect and recognition span all four of the differing perspectives, each under a
slightly different guise. Managers should focus on initiating strategies that enhance respect within
their units and recognize the diligence and expertise of their staff to enhance retention efforts.

Nurses who characterized Factor 1 (Healthy Workplace and Respect Seekers) highlighted
their desire for a healthy workplace, which, if implemented, would also prove to be evidence of
respect for their work and the profession. Stucke and Menzel (2007) propose that in a largely female profession, the workplace should be designed such that nursing tasks are designed for “a workforce that is shorter and has less upper body strength, a shorter reach, and less grip strength” (p.156). Union support was a retention priority for this group of nurses as well in its role of “providing support to nurses and patients, advocating for worker rights and safe work environments, and acting as a liaison between nurses and management” (Hayes, McGrath & O’Brien-Pallas, 2004, p. vi). Taken together these notions reflect the nurses’ desire for a positive work environment where they are respected and equipped to properly care for their patients.

Proponents of Factor 2 (Flexibility and Reward Seekers) identified recognition and rewards as effective retention strategies. Respondents in this group were the most mature of all groups. Blythe et al. (2008) reported that nurses at this stage in their professional lives remained ready for new challenges in their work life but...there [were] few jobs in which they [could] demonstrate their mentoring or leadership abilities” (p. 151). Given the opportunity, committee work and innovative roles on the health care team may fulfill their need for recognition and enhance retention efforts. In the Professional Recognition in the Development of Nursing Excellence (PRIDE) retention campaign in South Carolina, Robitaille and Whelchel (2005) observed a decrease in nursing turnover subsequent to implementing financial rewards and system recognition for committee involvement and professional development activities. This would allow for some job flexibility along with their preference for self-scheduling. Boychuk Duchscher and Cowin (2004) support these results with their own findings that nurses in this “Generation X” category (born between 1965 and 1980) were familiar with flexibility and uncomfortable with rigidity and predictability. Nurses who loaded on Factor 2 prioritized both role and scheduling flexibility.
Nurses who loaded on Factor 3 (Professional Development and Teamwork Seeker) had an average age of 32.5 years, nearly 8 years less than those who loaded on Factor 1. They felt that encouraging respect between members of the interdisciplinary team was the key to their retention. Respect was prioritized as well as recognition for the unique role they play within the health care team. Born after 1980, this group falls into the “millennial” generational cohort (Boychuk Duchscher & Cowin, 2004). Boychuk Duchscher and Cowin found that individuals who comprise the millennial generation desire “strong peer relationships and favor a collective, cohesive, and collaborative approach to teamwork” (p. 498). Following implementation of team building strategies, DiMeglio et al. (2005) saw a 27% decrease in turnover over six months.

Laporta, Burns and Doig (2005) assert that teamwork and interdisciplinary collaboration are integral to increasing nurse retention rates.

In contrast to the nurses who loaded on the three factors that preceded it, Factor 4 nurses identified retention strategies that involved extraprofessional “lifestyle” benefits as their top priority. Falling within the millennial generation, Boychuk Duchscher and Cowin (2004) state that as “they dedicate themselves to achieving the lifestyle they want, in return, they will be a particularly demanding workforce generation” (p.499). Jenkins (2008) further explains that millennials expect benefits in exchange for their loyalty. An additional benefit that could arise from the implementation of these strategies may be an increased perception of organizational and managerial recognition by these nurses. This factor is one that merits further investigation with a larger sample and more in-depth responses.

All of the mid-career critical care nurses who participated in this study were in agreement that they were content to accompany transport patients to other hospitals. This is important because Esmail et al. (2006) state that “critically ill patients undergoing transport should receive
the same level of care and monitoring...as they would receive in an ICU” (p.82). For example by
designating a transport nurse (who otherwise assisted on the unit), the rate of adverse events
during transport dropped to 15.5% from a national level of 75% (Stearley, 1998).

**Limitations**

Despite its research potential Q-methodology is limited by factors including its relatively
small sample size. The small p-set increases the chances that some viewpoints could be missed
(Webler, Danielson & Tuler, 2009). In addition to size, non-random sampling of participants may
hinder the data’s applicability outside the confines of the study (Akhtar-Danesh, Baumann &
Cordingley, 2008). Q-methodology has also received criticism surrounding the reliability of Q-
sort data. To assume that any individual is able to produce no more than a single viewpoint would
be to stifle the capacity of human beings to change their minds (Watts & Stenner, 2005). Never-
theless, this variety of viewpoints tends to display a degree of consistency over time, with Brown
(1980) suggesting that up to a full year later, Q sorts can be replicated with 85% stability. Finally,
in this study, Q-sorting sessions were conducted within, or adjacent to nurse’s units in the midst
of their shifts. It is possible that some staff may have rushed through the sorting exercise in order
to expedite their return to a particularly ill patient. This may compromise the accuracy of the
findings, although respondents were given the option to return at a later time to complete the sort.

**Conclusion**

Findings from this exploratory study emphasize the need to understand the workforce
profile of mid-career nurses to appropriately tailor retention strategies. It reveals that this sample
of mid-career critical care nurses have four different perspectives and priorities surrounding their
retention. These viewpoints can be classified as: The Healthy Workplace and Respect Seekers,
The Flexibility and Reward Seekers, The Professional Development and Teamwork Seekers and
The Lifestyle Seekers. Priorities within these groups include the nursing environment/equipment, respect, flexibility, rewards, team building, staffing, education and extraprofessional benefits. These target areas reflect both organizational and managerial focal areas for the development of effective strategies to retain mid-career critical care nurses. Strategies to address these priorities should consequently be implemented at both levels. Even within the mid-career group (as defined for this study) there may be further demographic differences that characterize these viewpoints, and accordingly, they merit further exploration.

The results of this study highlight target action areas for healthcare organizations, nursing leaders, policy makers and future research. Healthcare organizations should track the workforce profiles of their frontline staff, develop an array of strategies that they can individually select from, and provide nurses with adequate supplies and safe equipment. Nursing leaders should lobby for adequate money to fund retention strategies, engage nurses in designing strategies and consider new roles and flexible scheduling. Policy makers should consider funding further research exploring multigenerational nursing retention within critical care, and hold organizations, and frontline managers accountable for better staff retention by developing comprehensive workforce profiles and tracking tools for RN utilization at the unit, organizational and provincial levels. Finally, future research should explore differences in generational retention strategy preferences, the potential association between years of nursing experience and retention strategy preference, and whether or not the definition of a “multigenerational” workforce within a profession such as nursing would be more appropriately based on experience rather than age.
References


http://www.lrzmuENCHEN.de/~schmolck/qmethod/downpqx.htm


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<thead>
<tr>
<th>#</th>
<th>Statement</th>
<th>Factor Scores</th>
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<tbody>
<tr>
<td>7</td>
<td>If we had more reliable/advanced equipment and less difficulty dealing with supplies required for patient care (i.e. medications and wound care supplies) I would want to stay</td>
<td>5 1 -1 0</td>
</tr>
<tr>
<td>18</td>
<td>Decreasing the price of monthly parking for staff would keep me here</td>
<td>4 1 -3 2</td>
</tr>
<tr>
<td>41</td>
<td>Working somewhere that is supported by a union keeps me here</td>
<td>2 -4 -1 1</td>
</tr>
<tr>
<td>17</td>
<td>Encouraging respect between team members (RT, MD, EA, PT, RPN, diet and RN's) would keep me here</td>
<td>2 0 3 0</td>
</tr>
<tr>
<td>9</td>
<td>Increased attention to ergonomics and the functionality of our unit (nursing station design, chairs, podiums etc) would make me want to stay</td>
<td>1 -3 -2 -3</td>
</tr>
<tr>
<td>19</td>
<td>I would remain in my current position if rotation to other ICU’s than my own was done on a fair basis</td>
<td>-1 -2 -4 -5</td>
</tr>
<tr>
<td>34</td>
<td>I would remain in my current position if we were given time off and easy access to financial support for formal higher education (BScN, Masters, or PhD)</td>
<td>-2 2 0 0</td>
</tr>
<tr>
<td>30</td>
<td>On-site childcare, conducive to 12 hour shifts at a reasonable price would keep me working here</td>
<td>-3 -1 2 -5</td>
</tr>
<tr>
<td>3</td>
<td>I would remain in my current position if there was an onsite fitness facility or access to wellness and prevention programs</td>
<td>-3 0 -1 5</td>
</tr>
<tr>
<td>35</td>
<td>Individual lockers, showers and a staff lounge that has increased attention to its décor and overall level of comfort would keep me here</td>
<td>-4 -1 0 3</td>
</tr>
<tr>
<td>38</td>
<td>I would remain in my current position if I had easier access to information, support and resources (through journal clubs, nurse clinician activities etc.)</td>
<td>-4 -1 -2 -2</td>
</tr>
<tr>
<td>#</td>
<td>Statement</td>
<td>Factor Scores</td>
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<tr>
<td>6</td>
<td>I would stay in my current position if I was given financial compensation and opportunities for promotion for the committee work that I do</td>
<td>-1 5 0 -3</td>
</tr>
<tr>
<td>28</td>
<td>An option for self-scheduling would make integrating home life and work life easier and make me want to stay</td>
<td>1 4 1 1</td>
</tr>
<tr>
<td>10</td>
<td>I would remain in my current position if we had adequate nurse-patient ratios to meet patient care demands</td>
<td>5 3 5 1</td>
</tr>
<tr>
<td>43</td>
<td>Taking advantage of the value of my wisdom and experience by creating expanded, challenging, and innovative roles (i.e.: best practices coach, family advocate, or research analyst) would encourage me to stay</td>
<td>-1 1 3 -3</td>
</tr>
<tr>
<td>15</td>
<td>I would remain in my current position if there was a formalized policy for making end-of-life care decisions</td>
<td>0 -3 -1 0</td>
</tr>
<tr>
<td>41</td>
<td>Working somewhere that is supported by a union keeps me here</td>
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<td>2</td>
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</tr>
<tr>
<td></td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>17</td>
<td>Encouraging respect between team members (RT, MD, EA, PT, RPN, diet and RN’s) would keep me here</td>
<td>2</td>
</tr>
<tr>
<td>43</td>
<td>Taking advantage of the value of my wisdom and experience by creating expanded, challenging, and innovative roles (i.e.: best practices coach, family advocate, or research analyst) would encourage me to stay</td>
<td>-1</td>
</tr>
<tr>
<td>44</td>
<td>Effective strategies developed by management to support team building activities would encourage me to remain in my current position</td>
<td>-3</td>
</tr>
<tr>
<td>33</td>
<td>I would remain in my current position if there was a higher pay scale for the advanced knowledge and skills of critical care nurses</td>
<td>4</td>
</tr>
<tr>
<td>18</td>
<td>Decreasing the price of monthly parking for staff would keep me working here</td>
<td>4</td>
</tr>
<tr>
<td>20</td>
<td>I would remain in my current position if we got better discounts (coffee shop, cafeteria, gift shop etc.)</td>
<td>-2</td>
</tr>
<tr>
<td>32</td>
<td>Having a coffee shop open 24 hours within the hospital would keep me working here</td>
<td>-2</td>
</tr>
</tbody>
</table>
Table 4. Distinguishing statements for Factor 4

<table>
<thead>
<tr>
<th>#</th>
<th>Statement</th>
<th>Factor Scores</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>1</td>
</tr>
<tr>
<td>3</td>
<td>I would remain in my current position if there was an onsite fitness facility or access to wellness and prevention programs</td>
<td>-3</td>
</tr>
<tr>
<td>35</td>
<td>Individual lockers, showers and a staff lounge that has increased attention to its décor and overall level of comfort would keep me here</td>
<td>-4</td>
</tr>
<tr>
<td>20</td>
<td>I would remain in my current position if we got better discounts (coffee shop, cafeteria, gift shop etc)</td>
<td>-2</td>
</tr>
<tr>
<td>32</td>
<td>Having a coffee shop open 24 hours within the hospital would keep me working here</td>
<td>-2</td>
</tr>
<tr>
<td>6</td>
<td>I would stay in my current position if I was given financial compensation and opportunities for promotion for the committee work that I do</td>
<td>-1</td>
</tr>
<tr>
<td>43</td>
<td>Taking advantage of the value of my wisdom and experience by creating expanded, challenging, and innovative roles (i.e.: best practices coach, family advocate, or research analyst) would encourage me to stay</td>
<td>-1</td>
</tr>
<tr>
<td>16</td>
<td>Maintaining strictly RN ICU staffing will retain me</td>
<td>4</td>
</tr>
<tr>
<td>30</td>
<td>On-site childcare, conducive to 12 hour shifts at a reasonable price would keep me working here</td>
<td>-3</td>
</tr>
<tr>
<td>19</td>
<td>I would remain in my current position if rotation to other ICU’s than my own was done on a fair basis</td>
<td>-1</td>
</tr>
</tbody>
</table>
Figure 1: The Q-grid

Least Effective

Most Effective

-5  -4  -3  -2  -1  0  1  2  3  4  5