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Improving Quality and Patient Safety by Retaining Nursing Expertise

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Abstract and Introduction

Abstract

Does nursing experience matter in relation to outcomes and patient safety? Intuitively, most nurses and nurse leaders would say yes. However, data are needed to support this relationship. The author begins this article by reviewing the novice to expert trajectory, describing differences between novice and expert nurses, and reporting the relationship between nurse experience and quality outcomes as measured by nurse-sensitive indicators. Current data already indicate that outcomes, such as the incidence of patient falls and the prevalence of hospital-acquired pressure ulcers (HAPU), are influenced by the experience level of the nurse. The author also discusses the threat of losing experienced nurses in the workforce and presents five strategies (vehicles) to maintain expertise in practice.

Introduction

Teaching a new driver to drive a car can be a challenging experience, in part at least because new drivers lack the ability to sense when they are 'heading for trouble.' Data support the fact that less experienced drivers are involved in accidents at a ten times higher rate than experienced drivers (McKnight & McKnight, 2006). To a large extent, it is driving experience that enables a new driver to become a safer driver. Similarly, although a new nursing graduate may have a strong theoretical understanding of our body of nursing knowledge, experiential (practice) knowledge is essential for the new graduate to progress to safer levels of practice. Experiential knowledge is characterized by skillful execution of
nursing procedures as well as the ability to perform complex, multidisciplinary assessments and to recognize early signs of deterioration in the condition of a patient. Nurses who are both well-educated and experienced are in the position to give the highest quality of care.

The author begins this article by reviewing the novice to expert trajectory, describing differences between novice and expert nurses, and reporting the relationship between nursing experience and quality outcomes as measured by nurse-sensitive indicators. She goes on to explain that current data already indicate that outcomes, such as the incidence of patient falls and the prevalence of hospital-acquired pressure ulcers (HAPU), are influenced by the experience level of the nurse. Five strategies (vehicles) to maintain expertise in the nursing workforce are presented.

**The Novice to Expert Trajectory**

One important factor that contributes to nursing quality is the nurse's years of experience in nursing (Aiken, Havens, & Sloane, 2009; Dunton, 2007). Multiple experiences of observing cues, and recognizing patterns related to patient status that need to be acted on in specific ways, lead to higher levels of clinical performance (Burritt & Steckel, 2009). An experienced nurse may assess the same patient as an inexperienced nurse but respond differently based subtle changes (cues) that serve as a forewarning of significant, underlying issues. The recent trend to deploy response teams to provide resources and expertise in support of the bedside nurse is a common organizational response to support varying levels of staff experience. Response teams serve to reinforce clinical confidence on the part of less experienced nurses and teach these nurses how to interpret the subtle cues of early deterioration.

Daley (1999) has reported that novice nurses tend to learn through formal training, such as review of policies and procedures and attendance at educational offerings. In contrast expert practitioners supplement formal learning with a mature knowledge base that they have developed over a period of years. Benner (1984) has identified various stages of clinical competency. She describes the first stage as that of the novice. These nurses are taught rules to help them perform; and they tend to apply these rules universally. She has described the next stage as being advanced beginners who use principles based on experience to guide their actions. Nurse in the third stage are called competent nurses. They execute routine skills concentrating on outcomes rather than specific tasks (King & Clark, 2002). Benner (1983) and Daley (1999) have noted that the next stage of nurses, i.e. proficient nurses, report learning from multiple past episodes and begin developing a feeling of “intuition.” The final stage is that of the expert nurse. Taylor (2002) has observed that these expert nurses utilize multiple sources of information to a greater extent than do novice nurses. Benner (1984) has added that they have an intuitive grasp of each situation and zero in on the accurate region of the problem without wasteful consideration of a large range of unfruitful, alternative diagnoses, and solutions. In summary, the comfort level and proficiency of clinical nursing skills develop along a trajectory.

Tacit (skill) knowledge, better known as 'the how to' knowledge, in contrast to theoretical knowledge, is acquired primarily through experience, including observational experiences, preceptorship learning opportunities, and working with mentors (Evans et al., 2006). Several approaches for fastening the development and maintenance of an expert nursing workforce are emerging in nursing today. School and clinical agency partnerships have been suggested as a strategy to expedite learning and transition from practicing at a student level to practicing at a proficient level (Delunas & Roorda, 2009). Professional 'apprenticeships' and nurse residency programs have also been proposed to speed the progression of new nursing graduates along the experience trajectory (Pine & Tart, 2007). Orsolini-Hain...
and Malone (2007) have encouraged long-term mentorships. Additionally, simulated learning experiences are now offered as an alternative to traditional measures of developing competency (Benner, Sutphen, Leonard, & Day, 2010).

**Differences Between Novice and Expert Nurses**

Expertise in nursing is influenced by relevant experience as well as associated factors, such as learning styles and educational opportunities, all over a period of time (Taylor, 2002). In a qualitative study comparing the assessment skills of novice and expert nurses, Taylor (2002) reported that expert nurses tend to ask more questions and clarify more concerns during the handoff of a patient than do less experienced nurses. 'Cue recognition,' fostered by additional learning and experience, was a descriptor used to reflect the desired linking of information demonstrated by expert nurses (Taylor, p. 16). Taylor added that 'cues' can be discerned through the recognition of anticipated versus unanticipated patient care outcomes based on experiential knowledge. Cue recognition is demonstrated by the nurse identifying patient symptomatology outside the expected norm and pursuing additional data and information. Taylor added that data have supported the view that expert nurses utilize the patient's history and other relevant clinical information to provide the background for decision making, while novice nurses rely more frequently on written orders and directives.

Evans and Donnelley (2006) have supported Taylor's findings, noting that expert nurses develop 'global sets' about patients. These sets include components of knowledge, skill, and judgment. Expert nurses more frequently evaluate patients and families in a broader context through pattern recognition, integrating both cognitive and intuitive processes, than do novice nurses. Daley (1999), too, noted that proficient nurses have been reported to take a holistic approach to their work, as they develop a sense of "salience" that allows them to discern less important tasks and information from the more important ones. More recently, Uhrenfeldt and Hall (2007) described the proficient nurse as "clinically wise" (p. 396).

It should be noted that in these studies the years that constitute "experience" vary from study to study. Ranges of experience to be considered an "expert" include two years (Uhrenfeldt & Hall, 2007), five years (Conway, 1998) and undetermined (Daley, 1999). Daley did not use "years" as the differentiator for expertise but rather referred to "events that occur in clinical practice and the professional person's response to those events" as the differentiator (p. 5).

**The Relationship between Nurse Experience and Quality Outcomes**

Nursing was recognized by the 2004 Institute of Medicine Report, "Keeping Patients Safe," as having a critical role in patient safety (Dunton, 2007). The National Database of Nursing Quality Indicators™ (NDNQI)® was established by the American Nurses Association in 1998 to identify and promote nursing's role in quality outcomes (Dunton & Montalvo, 2009). The database, which is managed through the University of Kansas, serves as a repository for nurse-focused structure and process data from over 1,400 hospitals in the United States (US) and at least six other countries (Dunton & Montalvo, 2009). Nurse-centric data, including years of experience in nursing, have been available through the database since 2002. Quality of care indicators (measures) in this database include: patient fall rate, injury fall rate, catheter-associated urinary tract infections, pressure ulcer prevalence, and hospital-acquired pressure ulcer (HAPU) prevalence (Dunton, 2007).

NDNQI data support the relationship between characteristics of the nursing workforce and the incidence of patient falls and hospital-acquired pressure ulcers (HAPUs), two recognized nursing sensitive indicators (Dunton, 2007). These conditions have not only serious immediate effects but can also lead to
further complications. Falls affect 30% of the individuals 65 years of age and older (Centers for Disease Control and Prevention [CDC], 2006). Fatality rates for falls in hospitals were reported during 2001–2003 to range from 13.3% to 15.6% (CDC, 2006). In 2000, the direct cost of falls for people 65 years of age or older exceeded 1 billion dollars (CDC, 2008). The Nurse Executive Center (NEC) has identified HAPUs as the most frequently occurring, nurse-sensitive quality indicator among hospitalized patients (NEC, 2009).

In 2006, data from RN characteristics within NDNQI were matched to data on staffing and outcomes at the unit level (Dunton, 2007). The data indicated that for every increase of one year in average RN experience, the fall rate was lowered by 1% lower. It also indicated that lower HAPU rates were related to higher total nursing hours per patient, a higher percentage of hours supplied by RNs, and a higher percentage of RNs with 10 or more years of experience in nursing (Dunton, 2007). Dunton also reported that for every increase of one year in average RN experience, the HAPU rate was 1.9% lower; and a higher percentage of experienced RNs was associated both with lower fall rates and lower HAPU rates. An upper limit in years of experience for this effect was not identified. It was noted that nursing leaders could lower HAPU rates by an average of 11.4% if they would simultaneously increase the percentage of hours supplied by RNs from 60% to at least 70% and increase the average experience of RNs by 5 years (Dunton, 2007).

The Threat of Losing Experienced Nurses

Given the evidence we currently have regarding the relationship between nurse experience and quality of care, concern is being expressed over the number of experienced nurses who are approaching retirement age and considering leaving the workforce. A decrease in the number of senior nurses within healthcare is cause for concern, given the care-giving skills and knowledge needed for the clinical management of today’s complex, high acuity patients. Expert nurses leaving the work setting results in the loss of experience-based knowledge, a situation that has ominous implications for patient care (Bleich et al., 2009). The retention of “seasoned” and experienced nurses, and therefore expertise, and the transition of knowledge and clinical ‘know how’ from one generation of nurses to another are an imperatives for nurse leaders to address (Bleich et al., 2009; Hatcher et al., 2006).

Obtaining an accurate calculation of the number of nurses over 45 years of age is a challenging endeavor due to the dynamic nature of the cohort. Buerhaus (2007) reported there were 100,000 nurses over 50 years of age in 1980 and 400,000 in 2007. A workforce survey of 978 nurses suggested that the average age of a nurse leader was over 50 years of age in 2006 (Hart, 2007). These statistics indicate that we need to act now to maintain an experienced workforce.

Coomber and Barriball (2007) have identified four themes as having a significant influence on the decision to leave the profession. These themes include lack of educational support, concerns regarding pay/financial security, the stress inherent in the work of nursing, and ineffective leadership. In addition there is an increasing desire to transition over time from full involvement in the workforce to full retirement. These themes will be discussed below. Implications of these themes for maintaining an experienced work force will be presented in the next section.

The focus of nursing knowledge in a healthcare environment is moving from a skill-based focus to a knowledge-based framework supported by the application of knowledge, evidence, and science. Nurses know they need continuing education to keep up in today’s rapidly changing environment. Yet often
they are not supported in obtaining the knowledge they need to continue working (Coomber & Barriball, 2007).

The end of a career may lead to diminishing personal resources for many individuals because the end of employment can lead to a limited income (Hardy, 2002). Over 92% of the nursing workforce is comprised of women (Buerhaus, Staiger, & Auerbach, 2009). Many women will face retirement alone due to the high incidence of single adulthood in this age group resulting from longevity, death of a spouse or partner, or divorce (Glass & Kilpatrick, 1998). As single women, they face the threat of financial dependency.

A physically stressful work environment may contribute to poor health which in turn decreases the level of activity one is able to maintain, thus increasing the probability of early retirement. Friis and colleagues (2006) studied 5,538 Danish nurses who were 44 years or older and found that poor, self-rated health was a predictor of early retirement among this nursing population.

The need for strong leaders who can effectively guide a changing workforce is great. The negative effects of working under leaders who have not been adequately prepared to assume leadership roles in complex healthcare environments contribute to job dissatisfaction. This dissatisfaction may result in experienced workers leaving the workforce.

In today's work environment retirement from the workforce is an active decision on the part of the worker, not a passive passage. Often employees want to retire in phases. The retirement phases, sometimes called the 'journey' of retirement, are just beginning to be defined. More plans for phrased retirements are needed.

**Vehicles to Maintain Expertise in Practice**

A number of strategies have been suggested to keep experienced nurses in the workforce for longer periods of time. These strategies include cultivating a climate of continuous, career-long learning; developing a career portfolio; structuring ergonomic accommodations; devising strategies to support succession planning; and implementing phrased retirements.

**Vehicle #1: Cultivate a Climate of Continuous, Career-long Learning**

**Provide Opportunities for Nurses to Develop Skills with New Technologies and Advance their Education.** Many believe that aging workers have a diminished interest in learning or seeking additional education later in life (Thornton, 2002). However, a World Health Organization (WHO) survey (2007) found that many individuals 50 years of age and older displayed a lifelong commitment to learning; 79% of the individuals reported an interest in increasing computer skills and obtaining technology training, and 77% expressed an interest in updating their education related to their vocation. Staudinger et al. (1998) reported that openness to learning was a key attribute in predicting 'wisdom-related' performance. Maintaining a high level of mental stimulation through work interactions can promote stability in mental abilities even beyond the age of 70 (Baltes, 2003; Knight & Ricciardelli, 2003). Continued commitment by employers to enhance educational opportunities for older employees, including technical and vocational skills and formal and informal education, may well keep nurses in the workforce longer, even as they age.

**Vehicle #2: Develop a Career Portfolio to Maintain Financial Security**
Clarify Career Goals and Develop a Career Portfolio. For purposes of this discussion, a career portfolio will be defined as one's personal collection of skills, education, and experience accumulated during an employee's professional lifetime. Turner (2008) reported that the labor market for workers changes dramatically as they age. Imbalances in power between generations may not support positive views of aging workers by either leaders or co-workers (Biggs, Phillipson, Money, & Leach, 2006). Older employees may or may not be viewed as "assets" in a work environment (McMahan & Sturz, 2006). Subjective assessments in this regard may be based on physical deterioration, cost of accommodations, and perceived value of older workers. These perceptions may, in turn, affect the negotiation power of older workers with regards to financial remuneration and conditions of employment. Establishing a path to achieve additional competencies, education, and experience will not only enhance the perceived value of older employees, but also enable them to enhance their career options thus promoting their longevity in the work force.

Vehicle #3: Structure Ergonomic Accommodations

Create Organizational Support for Ergonomic Accommodations. Nurse leaders have been proactive in examining the issue of ergonomic accommodations that support the retention of nursing staff in clinical roles. They have supported initiatives, such as the Wisdom at Work, a pilot project funded by the Robert Wood Johnson Foundation to study workplace/work environment accommodations for nurses over 45 years of age (Hatcher et al., 2006; The Lewin Group, 2009). Innovations have included the installation of overhead lift devices; development of lift teams; the redesign of units to decrease distances walked; and the adoption of standards requiring ergonomically correct chairs, computer stations, and communication systems. Although data are not yet available to support the long term benefits of these innovations, the initial interest in the concept of ergonomic accommodations is promising and may address concerns by some employers regarding the stamina and physical abilities needed by the aging population (The Lewin Group, 2009). Bleich et al. (2009) have recommended ergonomic accommodations, including additional lighting; updated floor surfaces to support healthy walking; and development of alternative roles, such as serving as a preceptor and doing special project work.

Vehicle #4: Develop Strategies to Support Succession Planning

Develop Leadership Succession Planning Strategies. Succession planning is a business strategy to assure the availability of leaders with the needed skills and abilities within an organization as personnel transitions occur. Blouin, McDonagh, Neistadt, and Helfand (2006) have referred to this process as the building of an internal workforce pipeline. Goudreau and Hardy (2006) have attributed the interest in succession planning within healthcare to the forecasted retirement of baby boomers and the associated loss of experience and expertise in the workforce. Succession planning offers the opportunity to strengthen organizational leadership and to transition experienced nurses into value-added roles with differing job demands. It provides the opportunity for expert nurses to move into leadership and mentoring roles. In working to retain seasoned nurses, leaders should identify organizational needs and the personal and financial goals of nurse who may be thinking of retirement. The development of transition plans at all levels of the nursing profession support the process of quality care delivery.

Vehicle #5: Implementation of Phased Retirement

Develop a Program of Phased Retirement. The need to keep as many experienced nurses as possible in the workforce emphasizes the importance of ending policies that limit post-retirement income and encourage early exits from the workforce (Taylor, 2003). There is evidence that some people do not want to retire at a pre-determined age. A study by the Urban Institute reported that 32.8% of retired
individuals between age 65 and 67 years described their retirement as involuntary (Penner, Perun, & Steuerle, 2002). Left undetermined is the number of individuals who may have transitioned to other models different from full retirement, including phased retirement if this option had been available. In a recent survey, only 7% of surveyed facilities (n=41) reported any type of phased-retirement programs, even though such an option has been proposed for preserving clinical knowledge and expertise (Bleich et al., 2009). Organizations offering phased retirement are rare (Hutchens & Papps, 2004), in part because the interest of an individual employee in a program of phased retirement will depend on pension plan characteristics, the financial and economic status of the employee, organizational culture related to the aging employee, knowledge of the employee regarding possible options, and the need for retention of essential skills within the environment. However, a phased retirement remains a viable vehicle to address the potential exodus of talent and knowledge from the nursing workforce (Hill, 2010).

**Conclusion**

Although we must continue to explore the relationship between expertise in nursing practice and quality care, the data available have already demonstrated that years of experience in nursing support expertise and have a positive impact on the quality of care provided. It is now important to develop and implement strategies to retain experienced nurse within the workforce. The aging of the workforce and predicted retirement of massive numbers of experienced nurses will have a negative impact on patient care and clinical quality unless this anticipated loss of knowledge and expertise is tempered with actions that promote retention of seasoned nurses. This article has presented five vehicles to increase the retention of the experienced nurse within the nursing profession. These vehicles include cultivating a climate of continuous, career-long learning, developing a career portfolio, making ergonomic accommodations, implementing strategies to support succession planning, and implementing phased retirements.