

A Review of Evidence-Based Strategies to Retain Graduate Nurses in the Profession

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The national nursing shortage is projected to increase over the next decade. The need exists to identify effective evidence-based strategies to retain new nurses in the profession. Findings from a systematic review of the literature revealed 6 articles that discussed effective retention strategies. There was consistency among the strategies, indicating that longer interventions increase retention and satisfaction.

which the contents of a “good” orientation program are delineated. This article reviews the state of the science regarding graduate nurse retention research and describes the evidence-based strategies shown to enhance retention. Implementation of or adaption of these strategies should be considered by employers in an effort to decrease the number of graduate nurses who leave their initial employer or the profession. Increasing nurse retention to the profession will positively affect the nursing shortage.

The current worldwide nursing shortage is not typical of past shortages, as it has lasted longer than any previous nursing shortage and is projected to worsen (Censullo, 2008). According to the American Nurses Association (ANA), 50% of graduate nurses (i.e., newly licensed nurses in an entry nursing role) leave their first position during their initial year of employment, and 6% exit the profession altogether during this same timeframe (Trossman, 2009). This loss of new nurses contributes annually to the instability of a stressed workforce (Trossman, 2009). Moreover, there is an average cost of \$50,000 per graduate lost (Duchscher & Cowin, 2004), although more recently, this has been estimated to be as high as \$148,000 (Salt, Cummings, & Profetto-McGrath, 2008). Turnover includes not just the expense of the nurse lost but also the cost of replacing that nurse. A number of interventions that aimed to retain graduate nurses in the profession have been reported in the literature (Altier & Krsek, 2006; Salera-Vieira, 2009; Santucci, 2004; Spector & Li, 2007). Baxter (2010) performed an overview of various orientation programs in

METHODS

A review of the research literature, using the electronic databases Ovid and PubMed, was done. The Ovid search identified 127 articles that included the words *retention*, *nurse*, and *graduate*. This search was limited to articles that were research based or evaluated any intervention using the search words *research*, *interventions*, and *evaluation*, respectively. Focusing specifically on the term *new nurse*, 70 articles were reviewed. Performing the same search within PubMed initially identified 138 articles, which, when narrowed to include *professional*, resulted in 54 articles. cursory review of these articles revealed that the majority focused on retention strategies for experienced nurses or for specific clinical/unit areas. Six articles focused specifically on interventions or strategies to retain new graduate nurses. These articles are the focus of this review, based on the focus of the intervention and research level. This formatting allows nurses in staff development to explore each intervention.

FINDINGS

Work Environment Perceptions

Graduate nurses are entering a profession with an overall vacancy rate of 8%–9%. According to the American Association of Colleges of Nursing (2011), this is over 116,000 registered nursing vacancies. The vacancy rate is predicted to increase to 260,000 nurses by 2025. The persistent loss of nurses who have recently obtained their licensure will add to the existing nursing shortage (Buerhaus, Auerbach, & Staiger, 2009). With this shortage increasing, there will be even fewer nurses to care

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The authors have disclosed that they have no significant relationship with, or financial interest in, any commercial companies pertaining to this article.

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DOI: 10.1097/NND.0b013e318240a740

for the population at the current level of need, not taking into consideration the increased need anticipated as baby boomers age.

New graduates describe nursing units as negative places where there is high stress (Bowles & Candela, 2005). Further, graduates have reported that although managers appear supportive, they are not perceived to listen to concerns of the staff (Bowles & Candela, 2005). New nurses state that they leave their first job because of the stress and high patient acuity (requirement for complex nursing care), resulting in what is perceived to be unsafe staffing ratios and unsafe patient care (Bowles & Candela, 2005).

High patient acuity as a concern for leaving nursing has been discussed by the ANA president (Trossman, 2009). In her June 2009 address to the ANA House of Delegates, the President stated that the change in the work environment over the last 30 years has altered the expectation of the graduate nurse upon entry into the first position. As recently as the 1980s, graduate nurses were able to care for the less acutely ill patients with hospital stays exceeding 2 weeks (Trossman, 2009).

Today, there is greater use of outpatient services, which decreases costs and reduces hospital-associated stress. In addition to cost and stress, hospitalization may result in hospital-acquired infections and adverse or unplanned patient outcomes (Brennan et al., 2004). These risks also increase costs, making outpatient stays more attractive to patients and insurance companies. Thus, hospitalizations are reserved for the most ill patients. The Centers for Disease Control and Prevention (2006) reports that the average length of a hospital stay is 4.8 days. This short stay requires patients to move quickly through the healthcare system, resulting in more acute and complex nursing care than historically required without outpatient services (Rother & Lavizzo-Mourey, 2009). The complexity of care increasing nurses' stress is compounded when nurses work long shift hours in excess of 12 hours per day, another reason nurses are leaving the profession (Letvak & Buck, 2008).

Perceived levels of low empowerment and little control over the work environment have been linked to nurses' leaving the profession (Laschinger & Finegan, 2005; Laschinger, Finegan, Shamian, & Wilk, 2003). Laschinger, Almost, and Tuer-Hodes (2003) reported that the Magnet model of nurse retention enhanced nurse empowerment. Nurses in the Laschinger, Finegan, et al. (2003) study reported feeling appreciated and had increased self-efficacy in their professional role, and organizational commitment was perceived as high. Other researchers have reported similar findings, with perceptions of increased partnership, coaching, collaboration, communication, and a sense of belonging all resulting in increased satisfaction and retention rates (Shermont & Krepcio, 2006).

Facilitators of Retention

Several studies have identified the factors associated with nurses' decision to stay in the profession (Crow, Smith, & Hartman, 2005; Letvak & Buck, 2008; Roberts, Jones, & Lynn, 2004; Wilson, Lenders, Fenton, & Connor, 2005). These factors include job enjoyment and high levels of job satisfaction. The ability to retain nurses is multifaceted and includes situational, facility, and unit retention and professional retention (Wilson et al., 2005). Understanding of the reasons nurses stay in the profession, coupled with the use of effective retention interventions, provides the evidence for the American Association of Colleges of Nursing recommendation that hospitals adopt nursing residency programs (Trossman, 2009).

Transition Programs

Transition programs, designed to assist new graduates in successfully passing the National Council Licensure Examination (NCLEX) and become a licensed registered nurse (RN), have been used by facilities to describe orientation programs. This transition, or orientation phase, is the period between graduation, beginning employment, and passing the NCLEX. The timing of taking NCLEX varies, with some states or healthcare organizations allowing new graduates to be employed before passing the NCLEX, others requiring NCLEX to be passed while in orientation, and others requiring the new graduate to have successfully passed NCLEX before starting employment. Transition programs include internships and preceptorships, externships, and postorientation "buddy" programs.

Internship and Preceptorship Programs

Internships and preceptorships are used interchangeably and describe methods of orientation that occur after graduation from a registered nursing program. Preceptorships, which match new graduate nurses with experienced nurses, generally encompass 3 to 12 months and provide specific education and training for a facility and/or unit. In a review article, which provides Level I evidence (Melnik & Fineout-Overholt, 2011), Salt et al. (2008) determined that preceptorships were the most commonly used form of orientation by healthcare facilities. Studies reviewed by Salt et al. indicated that preceptorships increased retention rates by 30% to 50%. Longer preceptor programs were associated with higher levels of retention; however, all preceptorships were shown to increase retention regardless of their length (Salt et al., 2008).

The "shadow-a-nurse" program (Messmer, Jones, & Taylor, 2004) is one example of an internship program. This program was developed to rapidly move new nurses into a complex role previously reserved for experienced nurses. This program placed graduate nurses in a critical care (intensive care unit) setting with experienced nurses while providing didactic classroom education and skills

practice specific to critical care nursing interventions. This program was 6 weeks in length, and preceptees were paid their regular salary during participation. Classroom time was spent learning additional assessment, communication, and stress management skills, which could then be applied while the preceptee was working in the intensive care unit environment with the preceptor. Preceptees completed pretest and posttest evaluations that indicated an increase in knowledge and self-confidence after program completion. There were 12 participants, with a mean age of 31 years, in each year of the study. The pretest to posttest mean score increased by 16.5 in Year 1 and 8.59 in Year 2 as evaluated using Toth's Basic Knowledge Assessment Tool. As reported in this study, the Basic Knowledge Assessment Tool has a Chronbach's α of .83 with a reliability of .86 (Messmer et al., 2004).

Another internship program described by Persaud (2008) was a mentoring program designed to orient new operative (operating room) nurses and increase retention rates among this population. Participants were given a folder of information about perioperative nursing and the facility in which they were working. The new graduate nurse participants also attended a didactic course titled Periop 101, which provided exposure to clinical skills specifically needed in operating room settings. Monthly meetings of participants and program developers kept the program on track. Postimplementation surveys indicated that these new graduate nurses were well acclimated to their role and had formed relationships with their mentors that extended beyond the program. As a single correlational study, Level IV data were provided (Melnyk & Fineout-Overholt, 2011). Of the 16 participants, 88% indicated they had good communication with their mentor/mentee, and 80% of the mentees were interested in being future mentors (Persaud, 2008).

Medical-surgical clinical areas also developed a rotational internship program in response to the changes in hiring patterns, which allowed new graduates to be employed in specialty areas, decreasing the desire to work within a general clinical area (Beauregard, Davis, & Kutash, 2007). This program provided participants with a series of experiences upon completion of the standard hospital orientation. The first 8 weeks included 2 weeks or 72 hours of an acute care transition program, in addition to clinical time on a unit. The goal of this clinical experience was to gradually increase the new graduate nurse's ability to successfully and independently provide care for three patients. The subsequent 8-week rotation included 4 weeks of direct orientation with a preceptor and 4 weeks of patient care, after which time the new graduate nurse's load was increased to five or six patients. Program participants continued to move through various medical-surgical units with 1 week of orientation and 4 weeks as a primary care nurse. This allowed participants to become comfortable

working in eight or nine units within the hospital. If at any time during the internship program a participant felt a unit was a "perfect fit," the participant was encouraged to apply for a position within that unit. Data from the 4 years that the program has been functioning indicate that 163 new graduate nurses participated, with an overall 93% retention rate. The prestudy retention rate was reported at 51%–60%, indicating the feasibility of this program to significantly increase medical-surgical retention rates for new graduate nurses by more than 33%. The review of multiple years' worth of data provides Level III research data (Melnyk & Fineout-Overholt, 2011).

Externship Programs

Externship programs are traditionally completed before graduation from an RN program. These programs are also precepted; however, participants in these programs are student nurses completing their final year of education. Participants in externship programs are encouraged to apply for employment once the externship is completed and graduation occurs. Research by Cantrell, Browne, and Lupinacci (2005) compared the experience of 26 RNs who participated in an externship program and 26 RNs who had not. The results of this study indicated that RNs who participated in the externship program had higher scores on professionalism and role socialization (Cantrell et al., 2005). Two follow-up studies were conducted with this study population; those results reveal that RNs who participated in the externship program also possessed higher levels of cultural understanding and a 3% increase in retention (Cantrell & Browne, 2005). The longitudinal data from one study population reflect Level IV research results (Melnyk & Fineout-Overholt, 2011).

Postorientation Programs

A postorientation buddy program has been used independently and in conjunction with preceptorships. These programs pair new graduate nurses with experienced nurses upon completion of the orientation period of the new graduate nurses. In a study by Guhde (2005), new graduate nurses were assigned "buddies," who were experienced nurses who worked the next shift. Over 4 months, these individuals provided guidance and feedback with respect to care issues. Postprogram comments reveal that the positive, helpful feedback from buddies, along with the monthly evaluations, allowed these new graduates to develop good work habits. Data from the buddies were also positive, reflective of legitimizing the right to guide a new graduate and assist the person struggling. As a single, descriptive study, Level VI research data are provided (Melnyk & Fineout-Overholt, 2011). The relationships that developed allowed learning to continue, beyond orientation and fix problems that arose after the program was completed (Guhde, 2005).

Residency Programs

Residency programs, defined as 1-year transition periods, have also been identified as an intervention capable of retaining new graduates. Residency programs for nurses have been used in hospitals since the 1980s. Participants in a study by Altier and Krsek (2006) were chief nursing officers and deans. These individuals posited that the turnover rates among new graduate nurses could be decreased and job satisfaction could be increased by implementing a residency program. Using input from six academic health centers and a standardized curriculum, the residency programs were implemented. Descriptive longitudinal data, consistent with Level IV evidence (Melnik & Fineout-Overholt, 2011), were collected from the new graduate nurses twice, upon hiring and after completion of the residency program. The results of this study indicate a statistically significant increase in job satisfaction and in retention over the first year of employment for new graduate nurses who completed the residency program (Altier & Krsek, 2006).

DISCUSSION

Programs aimed at improving new graduate retention include internships or preceptorships, externships, and postorientation buddy programs. These interventions, which vary in time, cost, and content, try to facilitate the transition of new graduate nurses into the role of a professional nurse. Each intervention has research supporting its outcomes and can be considered evidence based and effective at the transition and retention of new graduate nurses into various areas of employment.

Knowledge of the various transition programs allows staff development personnel to implement a program that is appropriate for the healthcare organization while meeting the needs of new graduate nurses. Adapting any of the programs mentioned, such as increasing the length of time, assessing skills at critical junctures, and providing adequate resources for both the mentee and the mentor, should be site specific. Adoption of these programs, rather than determining that they are too costly or otherwise inappropriate, should be considered.

Each of the graduate nurse retention strategies reviewed demonstrated potential benefits to the profession, with an increase in nursing retention. Each strategy addresses the negative factors surrounding nursing retention, including a slow introduction to high-acuity patients and high-stress situations, with the direct support of an experienced nurse. Moreover, increasing the time of orientation, as with any program reviewed, increases the empowerment or control the new nurse feels.

A consistent factor, regardless of the intervention, was the support required by the new graduate nurse by co-workers. Providing positive feedback and an environment in which asking questions is safe leads to feelings

of empowerment. Longer programs, such as residencies, reported higher levels of retention when compared with shorter orientation programs. The biggest difference among all programs was time. Longer programs increase the financial burden for any institution. Thus, although the optimal orientation period for the new nurse may be 1 year, fiscal reality may prohibit this. In addition to increasing time, other key components include having an experienced mentor, role clarification, unit socialization (skill classes and gradually working up to a full patient load), and finding a clinical area of interest where the new graduate nurse feels comfortable.

The key elements of any orientation program are as follows: (a) evaluation of baseline knowledge, (b) inclusion of higher level skill practice, (c) support from an experienced individual (expert) in the unit where the new nurse will be working, (d) provision of opportunities to clarify existing knowledge and expand knowledge, and (e) evaluation of individual program outcomes. It is necessary to develop feelings of empowerment and clinical competency, which are critical to retain new graduate nurses in their employment and in the profession.

References

- Altier, M. E., & Krsek, C. A. (2006). Effects of a 1-year residency program on job satisfaction and retention of new graduate nurses. *Journal for Nurses in Staff Development*, 22(2), 70–77.
- American Association of Colleges of Nursing. (2011). *Nursing shortage fact sheet*. Retrieved from <http://www.aacn.nche.edu/media/FactSheets/NursingShortage.htm>
- Baxter, P. E. (2010). Providing orientation programs to new graduate nurses. *Journal for Nurses in Staff Development*, 26(4), E12–E17. doi:10.1097/NND.0b013e3181d803119.
- Beauregard, M., Davis, J., & Kutash, M. (2007). The graduate nurse rotational internship. *Journal of Nursing Administration*, 37(3), 115–118.
- Bowles, C., & Candela, L. (2005). First job experience of recent RN graduates: Improving the work environment. *Journal of Nursing Administration*, 35(3), 130–137.
- Brennan, T. A., Leape, L. L., Laird, N. M., Hebert, L., Localio, A. R., Lawthers, A. G., ... Hiatt, H. H. (2004). Incidence of adverse events and negligence in hospitalized patients: Results of the Harvard Medical Practice Study. *Quality and Safety in Healthcare*, 13, 145–151. doi:10.1136/qshc.2002.003822.
- Buerhaus, P. I., Auerbach, D. I., & Staiger, D. O. (2009). The recent surge in nurse employment: Causes and implications. *Health Affairs*, 28(4), w657–w668. doi:10.1377/hlthaff.28.4.w657.
- Cantrell, M. A., & Browne, A. M. (2005). The impact of a nurse externship on the transition process from graduate to registered nurse: Part II. *Journal for Nurses in Staff Development*, 21(6), 249–256.
- Cantrell, M. A., Browne, A. M., & Lupinacci, P. (2005). The impact of a nurse externship on the transition process from graduate to registered nurse: Part I. *Journal for Nurses in Staff Development*, 21(5), 187–195.
- Censullo, J. L. (2008). The nursing shortage: Breach of ideology as an unexplored cause. *Advances in Nursing Science*, 31(4), E11–E18.
- Centers for Disease Control and Prevention (CDC). (2006). *2006 national hospital discharge survey*. Retrieved from <http://www.cdc.gov/nchs/FASTATS/hospital.htm>

- Crow, S. M., Smith, S. A., & Hartman, S. J. (2005). Attrition in nursing: Perspectives from the National Survey of College Graduates. *Health Care Management, 24*(4), 336–346.
- Duchscher, J. E., & Cowin, L. S. (2004). The experience of marginalization in new nursing graduates. *Nursing Outlook, 52*(6), 289–296.
- Guhde, J. (2005). When orientation ends ... supporting the new nurse who is struggling to succeed. *Journal for Nurses in Staff Development, 21*(4), 145–149.
- Laschinger, H. K. S., Almost, J., & Tuer-Hodes, D. (2003). Workplace empowerment and Magnet hospital characteristics: Making the link. *Journal of Nursing Administration, 33*, 410–422.
- Laschinger, H. K. S., & Finegan, J. (2005). Using empowerment to build trust and respect in the workplace: A strategy for addressing the nursing shortage. *Nursing Economic\$, 23*(1), 6–13.
- Laschinger, H. K. S., Finegan, J., Shamian, J., & Wilk, P. (2003). Workplace empowerment as a predictor of nurse burnout in restructured health care settings. *Longwoods Review, 1*(3), 2–11.
- Letvak, S., & Buck, R. (2008). Factors influencing work productivity and intent to stay in nursing. *Nursing Economic\$, 26*(3), 159–165.
- Melnik, B. M., & Fineout-Overholt, E. (2011). *Evidence-based practice in nursing and healthcare: A guide to best practice* (2nd ed.). Philadelphia, PA: Lippincott, Williams & Wilkins.
- Messmer, P. R., Jones, S. G., & Taylor, B. A. (2004). Enhancing knowledge and self-confidence of novice nurses: The “Shadow-a-Nurse” ICU program. *Nursing Education Perspectives, 25*(3), 131–136.
- Persaud, D. (2008). Mentoring the new graduate perioperative nurse: A valuable retention strategy. *Association of Operating Room Nurses Journal, 87*(6), 1173–1179.
- Roberts, B. J., Jones, C., & Lynn, M. (2004). Job satisfaction of new baccalaureate nurses. *Journal of Nursing Administration, 34*(9), 428–435.
- Rother, J., & Lavizzo-Mourey, R. (2009). Addressing the nursing workforce: A critical element for health reform. *Health Affairs, 28*(4), w620–w624. doi: 10.1377/hlthaff.28.4.w620.
- Salera-Vieira, J. (2009). The collegial clinical model for orientation of new graduate nurses: A strategy to improve the transition from student nurse to professional nurse. *Journal for Nurses in Staff Development, 25*(4), 174–181.
- Salt, J., Cummings, G. G., & Profetto-McGrath, J. (2008). Increasing retention of new graduate nurses: A systematic review of interventions by healthcare organizations. *Journal of Nursing Administration, 38*(6), 287–296.
- Santucci, J. (2004). Facilitating the transition into nursing practice: Concepts and strategies for mentoring new graduates. *Journal for Nurses in Staff Development, 20*(6), 274–284.
- Shermont, H., & Krepcio, D. (2006). The impact of culture change on nurse retention. *Journal of Nursing Administration, 36*(9), 407–415.
- Spector, N., & Li, S. (2007). A regulatory model on transitioning nurses from education to practice. *JONA's Healthcare Law, Ethics, and Regulation, 9*(1), 19–22.
- Trossman, S. (2009). Issues up close: Effective transitions. *American Nurse Today, 4*(6), 35–37.
- Wilson, V., Lenders, D., Fenton, J., & Connor, P. (2005). Mentorship: Developing and inspiring the next generation of nursing leaders. *Nurse Leader, 3*(6), 44–46.