

The Effects of a Prelicensure Extern Program and Nurse Residency Program on New Graduate Outcomes and Retention

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Organizations are looking to new graduate nurses to fill expected staffing shortages over the next decade. Creative and effective onboarding programs will determine the success or failure of these graduates as they transition from student to professional nurse. This longitudinal quantitative study with repeated measures used the Casey–Fink Graduate Nurse Experience Survey to investigate the effects of offering a prelicensure extern program and postlicensure residency program on new graduate nurses and organizational outcomes versus a residency program alone. Compared with the nurse residency program alone, the combination of extern program and nurse residency program improved neither the transition factors most important to new nurse graduates during their first year of practice nor a measure important to organizations, retention rates. The additional cost of providing an extern program should be closely evaluated when making financially responsible decisions.

Nursing shortages are expected to reach critical levels by 2020, and with millions of additional insured persons entering the healthcare system because of the Affordable Care Act, the need to build a clinically capable workforce whose providers are able to work

as interprofessional teams to ensure the achievement of quality outcomes has become a priority (Bureau of Labor Statistics, U.S. Department of Labor, 2014; Institute of Medicine [IOM], 2011; Patient Protection and Affordable Care Act, 2010). The quality incentives set forth in the Affordable Care Act will force hospitals to employ additional highly skilled nurses who will use evidence-based practice to achieve quality gains (Spetz, 2014).

New graduates are the largest pool of registered nurses available for recruitment to organizations. Yet, a survey conducted in 2002 found that neither 42% of newly hired new graduate nurses nor the nursing executives at the organizations where they worked believed new graduates were prepared to handle the challenges faced by nurses such as critical thinking, delegating tasks, and interacting with physicians (The Advisory Board Company, 2012). Because these are such high-level skills for an inexperienced professional nurse, turnover rates are especially high in the first 2 years of practice. To make sound decisions about hiring, training, and supporting new graduate nurses, organizations must understand these new graduates' unique needs (Arnold, 2012). Organizations have tried many ways to improve the onboarding experience of new graduate nurses and to avoid high rates of turnover not only to improve the quality of healthcare delivery but also to address the significant financial impact turnover can have on the organization.

The financial burden of turnover can represent a significant portion of a healthcare organization's labor costs. The estimated cost of recruitment and onboarding of a new nurse is between \$60,000 and \$96,000 in salary, benefits, orientation, and support, which translates to an overall replacement cost of up to 125% per lost nurse (Anderson, Hair, & Toderro, 2012; Arnold, 2012; Keller, Meekins, & Summers, 2006). Depending on the number of new graduates hired in a given year, budgeting \$150,000 to \$1,000,000 annually for new graduate orientation is not unheard of, but this is an expense many organizations cannot afford in the new healthcare frontier. Finding ways to effectively and efficiently onboard these professionals and provide them with a challenging and enriching experience has become part of organizational strategic initiatives.

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This study will explore whether new graduate nurses who attend a prelicensure extern program in addition to a year-long professional nurse residency program have better transitions into the profession and higher retention rates than those who participate in a 1-year nurse residency program alone. Although there is research on prelicensure externs and new graduate nurse residency experiences, no research has been conducted with new graduate nurses who experience both programs: a formal prelicensure externship and a postgraduate nurse residency. The insight gained from conducting this type of study improves the level of knowledge within nursing professional development. As the cost of onboarding a new nurse escalates, organizations cannot afford to continue replacing nurses. Finding the right balance of support for new graduates while respecting the commitment of preceptors and mentors is important in ensuring a positive assimilation into the culture of nursing.

LITERATURE REVIEW

PubMed and CINAHL databases were searched to determine the extent of existing knowledge regarding nurse residency programs, externships, and other new graduate nurse transition programs. The search was filtered for English-speaking studies after 1990 using variations of the key words: nursing residency, externship, internship, and orientation. A total of 73 references were found, and after removing duplicates and anecdotal accounts, 33 remained. Systematic reviews were also perused in an attempt to discover additional pertinent studies, and none were added. The studies discussed here represent literature focused on pre- and postlicensure nursing support program outcomes.

NURSE EXTERN PROGRAMS

Nurse extern programs are designed to provide pregraduate nursing students with real-world experiences by pairing carefully selected participants with experienced nurses, with whom participants work side by side for 3–12 weeks. In addition, these programs give the new graduate a head start toward socialization into the professional nurse role (Woodtli, Hazzard, & Rusch, 1988). Many organizations use extern programs as recruitment and retention strategies to reduce the role stress and reality shock new graduate nurses experience in the first year of practice. Extern programs can also provide opportunities for collaboration (Frizzell, 1993; Kramer, 1974; Rhoads, Sensenig, Ruth-Sahd, & Thompson, 2003; Stinson & Wilkinson, 2004; Woodtli et al., 1988).

Cantrell and Browne (2006) examined employment histories of nurses who participated in a summer extern program and found a 77% retention rate among 153 new graduates, a rate considerably higher than the estimated 35%–60% retention rate reported within the industry (Cantrell

& Browne, 2006). Another study showed a significant orientation savings of over \$1,200 per nurse compared with the onboarding of other new nurses. Also, recruitment expenses related to advertising, interviewing, and prehire testing were 47% less, and at 1 year the externship program had a 100% retention rate (Woodtli et al., 1988).

Several studies examined transition, job performance, autonomy, professional satisfaction, or professionalism in nursing for nurses who completed an extern program. For each of these factors, nurses showed either slight improvement or no improvement when compared to nurses who did not participate in an extern program (Cantrell, Browne, & Lupinacci, 2005; Oermann & Navin, 1991; Olson et al., 2001; Steen, Gould, Raingruber, & Hill, 2011; Tritak, Ross, Feldman, Paregoris, & Setti, 1997). Cantrell and Browne (2006) reported increased new nurse retention and satisfaction, but decreased professional development, after attending an externship. In another study, prelicensure nurses reported increases in self-confidence and planned on practicing differently in the future. For these nurses, the extern program eased the gap between education and practice (Ruth-Sahd, Beck, & McCall, 2010).

NURSE RESIDENCY PROGRAMS

The Joint Commission recommended the development of nurse residency programs in 2002 as a way to improve the delivery of safe, quality care. Residency programs have reported a cost per resident of \$1,000 to \$2,000 (Keller et al., 2006; IOM, 2011). These costs are small to an organization faced with annual turnover rates of as high as 60%. Residency programs focus on reducing role stress, enhancing job satisfaction, developing clinical competence and interprofessional skills, expanding critical thinking and professional practice behaviors with the use of experienced mentors, and increasing organizational commitment through a sense of belonging and improved self-esteem (Altier & Krsek, 2006; Herdrich & Lindsay, 2006; Kowalski & Cross, 2010; Marcum & West, 2004; Williams, Goode, Krsek, Bednash, & Lynn, 2007). A generation of new graduate nurses, who have grown up with social media where face-to-face personal interaction is not required, must learn the intangible culture of the workplace. The challenge of learning a new career while also learning to interact with others on a real-time human level is difficult. Finding a sense of belonging in an environment based on human interaction with preceptors and role models adds to the stress of the job (Santucci, 2004).

When nurses participate in a formal nurse residency program that focuses on socialization and transitioning into practice, they are more committed to the organization and are more satisfied in their work, which leads to an increased retention rate within an organization (Beauregard, Davis, & Kutash, 2007; Bratt & Felzer, 2012; Newhouse, Hoffman, Sulfita, & Hairston, 2007). Nurse residency programs

support nurses as they are socialized into their profession and provide a means of giving frequent and meaningful feedback to new graduates in the first year of practice and beyond (Olson-Sitki, Wendler, & Forbes, 2012). The building of collaborative, supportive relationships is the key to success in a preceptor-developed nurse residency program using a leadership model (Krugman et al., 2006).

The University HealthSystem Consortium and the American Association of Colleges of Nursing developed a 1-year postbaccalaureate nurse residency program in response to the increasing acuity of patients, expanding complexity of acute care, and documented high turnover rate of nurses in the first year of practice. The University HealthSystem Consortium also wanted to standardize the nurse residency content within its member hospitals. A longitudinal study over 12 sites enrolled 679 participants and showed an improvement in new graduates' self-perceived skill development, control over practice, support on the job, and job satisfaction. In addition, average turnover among the organizations was 12%, compared with the national average of 35%–55% (Williams et al., 2007).

The literature shows the variety of ways organizations have attempted to have successful onboarding through the development of formal pre- and postlicensure programs to meet the needs of new graduate nurses. What is missing from the literature is an analysis of a combination of programs, both pre- and postlicensure. The resources needed to recruit and retain a new nurse combined with the mixed success of both pre- and postlicensure programs on improving the retention of nurses pose the question of the benefit of a combination of the two programs.

This study examines the value of providing both a prelicensure program and postlicensure program on the retention and satisfaction of new graduate nurses. By examining the self-reported levels of support, patient safety, communication/leadership, professional satisfaction, and job satisfaction, this study was designed to determine if the additional investment of time and money to deliver both programs improves the professional nurse's experience.

RESEARCH HYPOTHESES

1. Nurses who attended a prelicensure extern program and postlicensure nurse residency program will score higher on self-perceived scales for support and patient safety than those who attended a postlicensure nurse residency program alone.
2. Nurses who attended a prelicensure extern program and postlicensure nurse residency program will score higher on self-perceived scales for communication and leadership than those who attended a postlicensure nurse residency program alone.
3. Nurses who attended a prelicensure extern program and postlicensure nurse residency program will score higher on self-perceived scales for job satisfaction

and professional satisfaction as those who attended a postlicensure nurse residency program alone.

4. Nurses who attended a prelicensure extern program and postlicensure nurse residency program will have higher retention rates at Year 1 and Year 2 than those who attended a postlicensure nurse residency program alone.

STUDY DESIGN

This was a longitudinal quantitative study with repeated measures. Subjects were surveyed at the beginning of their postlicensure nurse residency program, and at 3, 6, and 12 months, using the Casey–Fink Graduate Nurse Experience Survey (CFGNES) after obtaining the survey author's permission. The CFGNES has established reliability and validity. The CFGNES consists of five sections. The first section queries the participant's level of comfort with common nursing tasks. Section 2 measures five areas of the new nurse experience using a 24-item Likert-style scale instrument with responses that range from 1 (*strongly disagree*) to 4 (*strongly agree*). Through exploratory factor analysis reported by the authors (principal axis factoring with Varimax rotation), five factors emerged: support (9 items, $\alpha = .90$), patient safety (5 items, $\alpha = .79$), stress (6 items, $\alpha = .71$), communication/leadership (6 items, $\alpha = .75$), and professional satisfaction (3 items, $\alpha = .83$). The total Casey–Fink score has a Cronbach's alpha of .89. The stress questions focus on personal relationships, not job performance, and are only answered if the participant is under stress. The third section of the tool is a nine-item Likert-style scale with responses ranging from 1 (*very dissatisfied*) to 5 (*very satisfied*) regarding job satisfaction. Section 4 contains open-ended questions regarding transition into practice, whereas Section 5 collects demographic information (Casey, Fink, Krugman, & Propst, 2004).

STUDY POPULATION AND RECRUITMENT

This study used a convenience sample of new graduate nurses hired into a 630-bed teaching hospital and Level 1 trauma center in the southeast United States. Each new nurse was hired by individual unit managers to work in various areas of the organization (see Table 1). After general orientation, the nurse residents attended a week-long didactic instruction and simulation training period. Nurse residents returned as a group for 4 hours a month for professional development classes. Unit orientation was conducted with one to three preceptors per nurse over a 10- to 16-week period. Sixty new graduate nurses were hired and were required to complete the year-long professional development nurse residency program.

PROCEDURE

After receiving approval from the appropriate institutional review boards, the principle investigator (PI) met with the

TABLE 1 Demographics of Participants, <i>n</i> = 46	
Age in years	Mean 28.72
	Range 21–49
	<i>SD</i> 7.02
Gender	
Female	37 (80.4%)
Male	9 (19.6%)
Race	
African American	6 (13%)
Asian	1 (2%)
Caucasian	39 (85%)
Specialty	
Adult medical/surgical	12 (25%)
Pediatrics	10 (21.7%)
Adult critical care	7 (15.2%)
Emergency department	6 (13%)
Neonatal intensive care	5 (10.9%)
Rehabilitation	3 (6.5%)
Obstetrics/postpartum	2 (4.3%)
Peri-Operative	1 (2.2%)

study participants on the first day of the nurse residency program and explained the study purpose and the procedure for data collection. Consent was implied by all 60 participants in the voluntary study. Paper surveys were distributed on the first day of the residency and at 3, 6, and 12 months; names were matched with participant numbers by the PI after each data collection to ensure anonymity.

Eighteen months after the nurses had completed the residency program, a list of the participants' names was sent to the human resources department at the participating facility. Information regarding their current employment status was obtained, and retention rates were calculated.

RESULTS

New graduates were surveyed at the beginning of classroom instruction at each specified time period. An adequate amount of time was given to complete the questionnaire, and measures were in place to ensure anonymity of each participant. Only results from participants who completed

all four surveys were included in the final analysis. Forty-six participants completed all four surveys (77%). Eleven (20%) of the 46 participated in a prelicensure extern program. See Table 1 for demographics.

A repeated-measures MANOVA test was conducted to determine if the prelicensure extern program had an effect on any of the five factors, support, patient safety, communication/leadership, professional satisfaction, or job satisfaction, from the Casey–Fink Nurse Experience Survey over time. The results showed no statistically significant difference ($p < .05$) between those who attended a prelicensure extern program versus those who did not in any of the five factors over time, $F(12, 33) = 1.919$, $p = .069$. Data from the participants' response to the Casey–Fink Nurse Experience Survey are presented in Table 2.

RETENTION

Sixty residents began the nurse residency program and were included when calculating retention. The overall retention rates were 95% at 1 year and 85% at 2 years. For the extern group, the 1-year retention rate was 92%, whereas the 2-year rate was 77%. The nonextern group had 1-year retention rate of 96% and 2-year rate of 91%, notably higher than the extern group. Although the number of participants within the extern group were small (20%), the loss rate was higher than the nonextern group, with two externs leaving within the first 6 months of the residency. Although the retention rate at 2 years is still considered high compared to the national average, the 30-month overall retention rate dropped to 68%.

DISCUSSION

Although not statistically significant, there were areas of clinical significance found among the extern group. Those nurses who had completed an extern program scored higher than their nonexternship peers on 13 of 20 (65%) data points and higher at three time periods on three factors of the nurse experience as measured by the CFGNES: support, communication/leadership, and job satisfaction. The externs also scored higher at all four time periods in professional satisfaction but scored lower at all time periods in patient safety. Figure 1 shows that participants' responses follow similar patterns in the case of support, patient safety, and communication/leadership (Williams et al., 2007).

The value of supporting the new graduate nurse in the first year to 18 months of practice with mentoring and professional guidance is well documented in the literature. It is also well documented that a prelicensure extern program can be a useful retention and recruitment tool for some organizations. Until now, the potential value for improving the onboarding experience of the new nurse by combining these programs had not been studied.

TABLE 2 Casey–Fink Mean Scores on Five Factors at Four Time Periods Comparing Nurses Participating in Externship Versus Those Who Did Not

Time Period		Support, Mean (SD)	Patient Safety, Mean (SD)	Communication/ Leadership, Mean (SD)	Professional Satisfaction, Mean (SD)	Job Satisfaction, Mean (SD)
Beginning	Extern	26.45 (6.42)	10.73 (1.27)	16.27 (2.76)	10.82 (1.54)	67.09 (6.89)
	Nonextern	25.74 (5.51)	10.91 (1.77)	16.34 (2.65)	10.40 (1.65)	69.65 (9.24)
3 months	Extern	31.63 (2.83)	9.09 (2.12)	19.0 (1.34)	11.36 (1.03)	70.18 (8.22)
	Nonextern	30.48 (4.03)	10.60 (1.93)	17.42 (2.24)	10.26 (2.00)	68.63 (9.71)
6 months	Extern	30.73 (3.50)	9.54 (1.51)	19.81 (2.18)	10.45 (1.75)	69.45 (10.36)
	Nonextern	29.42 (3.40)	10.11 (1.08)	17.65 (1.71)	10.34 (1.76)	66.11 (8.36)
12 months	Extern	30.18 (3.84)	9.00 (1.67)	20.09 (2.12)	11.00 (1.00)	66.91 (9.48)
	Nonextern	30.28 (4.01)	9.42 (1.82)	19.51 (2.93)	10.57 (1.46)	65.66 (9.08)

Note. Externs, $n = 11$; nonexterns, $n = 35$.

As this study shows, the combination of residency and prelicensure programs does not necessarily improve outcomes of new nurses in terms of satisfaction and support, nor does it improve an organization's new graduate reten-

tion rates. The investment in providing both programs is not cost-effective unless there are improvements in new nurse levels of support, patient safety, satisfaction, or communication and leadership. The dollars spent on a

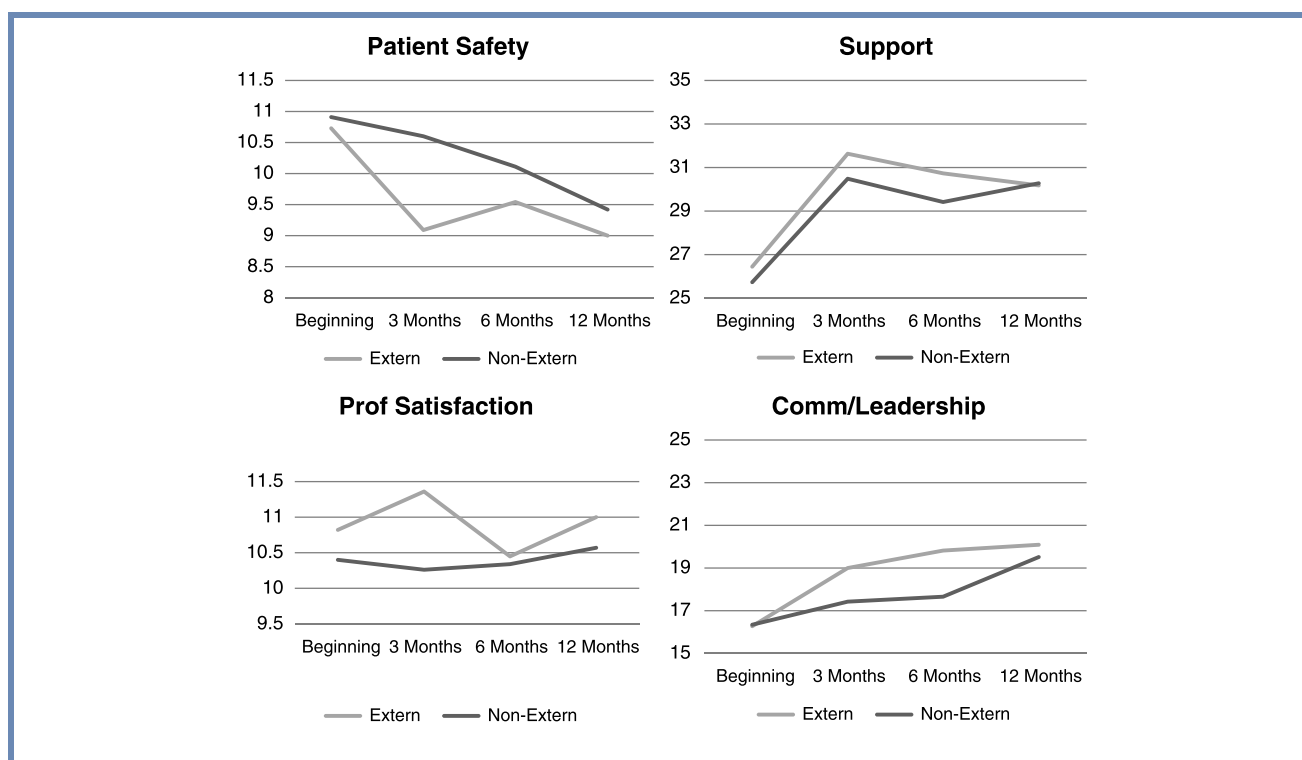


FIGURE 1 Casey–Fink mean scores on four time periods comparing nurses participating in externship with those who did not.

prelicensure program could instead be spent reinforcing and improving a postgraduate residency program to improve intermediate and long-term retention rates.

LIMITATIONS

One limitation of this study was the small sample size, which greatly reduces the generalizability of the study. However, the information will add to the already small amount of data on new graduate nurses and their readiness for the demands of the profession.

The number of nurses participating in the study who were able to attend an extern program was limited because few externship programs were available to them and those extern programs that were available accepted a limited number of students. Because this was a convenience sample within one hospital, the sample will not be representative of the population of nurses at large.

Finally, study subjects were required to attend monthly educational offerings to complete the residency program; however, some participants did not attend some of the sessions in which data collection was scheduled. The absence resulted in a loss of complete sampling for that particular participant and a lowering of the total number of participants in the study.

CONCLUSION

Healthcare organizations struggling to fill nursing shortages with new graduates must be cognizant of the high cost of new graduate nurse turnover and seek ways to engage nurses early in their careers. Competing demands for experienced nurses in medical homes, accountable care organizations, community health centers, and other models of care that keep the patient in the outpatient settings will continue to pull from hospital pools (IOM, 2011). Nursing leaders must continue to prioritize the job of finding and retaining qualified professional nurses to provide highly technical care. This study confirms existing research supporting specialized onboarding as an effective way to assimilate new graduates into the professional nursing role. Although prelicensure extern programs have been found to improve recruitment of new graduates, the long-term effects on the outcomes important to new nurses have not been supported. On the basis of this study, the inclusion of a prelicensure program was not a significant benefit and warrants a closer look when making financial decisions regarding organizational strategies and objectives to improve nursing retention.

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.

Anderson, G., Hair, C., & Todero, C. (2012). Nurse residency programs: An evidence-based review of theory, process, and outcomes. *Journal of Professional Nursing*, 28(4), 203–212. doi:10.1016/j.profnurs.2011.11.020

Arnold, J. W. (2012, June 5). Cost of hiring new nurses: In this tight economy, does it pay for hospitals to invest in graduate nurses? *Advance for Nurses*. Retrieved from <http://nursing.advanceweb.com/editorial/content/>

Beauregard, M., Davis, J., & Kutash, M. (2007). The graduate nurse rotational internship: A successful recruitment and retention strategy in medical-surgical services. *Journal of Nursing Administration*, 37(3), 115–118.

Bratt, M. M., & Felzer, H. M. (2012). Predictors of new graduate nurses' organizational commitment during a nurse residency program. *Journal for Nurses in Staff Development*, 28(3), 108–119. doi:10.1097/NND.0b013e31825515c4

Bureau of Labor Statistics, U.S. Department of Labor. (2014). *Occupational outlook handbook, 2014–2015 edition. Registered nurses*. Retrieved from <http://www.bls.gov/ooh/healthcare/registered-nurses.htm>

Cantrell, M., & Browne, A. (2006). The impact of a nurse externship program on the transition process from graduate to registered nurse: Part III. Recruitment and retention effects. *Journal for Nurses in Staff Development*, 22(1), 11–14.

Cantrell, M. A., Browne, A. M., & Lupinacci, P. (2005). The impact of a nurse externship program on the transition process from graduate to registered nurse: Part I. Quantitative findings. *Journal for Nurses in Staff Development*, 21(5), 187–195.

Casey, K., Fink, R., Krugman, M., & Propst, J. (2004). The graduate nurse experience. *Journal of Nursing Administration*, 14(6), 303–311.

Frizzell, J. P. (1993). Successful recruitment tool: A nurse extern program. *Nursing Management*, 24(9). Retrieved from <http://search.proquest.com/docview/231408327?accountid=12383>

Herdrich, B., & Lindsay, A. (2006). Nurse residency programs. *Journal for Nurses in Staff Development*, 22(2), 55–62.

Institute of Medicine. (2011). *The future of nursing: Leading change, advancing health*. Washington, DC: The National Academies Press.

Keller, J. L., Meekins, K., & Summers, B. L. (2006). Pearls and pitfalls of a new graduate academic residency program. *The Journal of Nursing Administration*, 36, 589–598.

Kowalski, S., & Gross, C. L. (2010). Preliminary outcomes of a local residency programme for new graduate registered nurses. *Journal of Nursing Management*, 18(1), 96–104. doi:10.1111/j.1365-2834.2009.01056.x

Kramer, M. (1974). *Reality shock*. St. Louis, MO: C.V. Mosby.

Krugman, M., Bretschneider, J., Horn, P. B., Krsek, C. A., Moutafis, R. A., & Smith, M. O. (2006). The national post-baccalaureate graduate nurse residency program: A model for excellence in transition to practice. *Journal for Nurses in Staff Development*, 22(4), 196–205.

Marcum, E. H., & West, R. D. (2004). Structured orientation for new graduates: A retention strategy. *Journal for Nurses in Staff Development*, 20(3), 118–124.

Newhouse, R. P., Hoffman, J. J., Sulfit, J., & Hairston, D. P. (2007). Evaluating an innovative program to improve new nurse graduate socialization into the acute healthcare setting. *Nursing Administration Quarterly*, 31(1), 50–60.

Oermann, M. H., & Navin, M. A. (1991). Effect of extern experiences on clinical competence of graduate nurses. *Nursing Connections*, 4(4), 31–38.

Olson, R., Nelson, M., Stuart, C., Young, L., Kleinsasser, A., Schroedermeier, R., & Newstrom, P. (2001). Nursing student residency program: A model for a seamless transition from nursing student to RN. *Journal of Nursing Administration*, 31(1), 40–48.

Olson-Sitki, K., Wendler, M. C., & Forbes, G. (2012). Evaluating the impact of a nurse residency program for newly graduated registered nurses. *Journal for Nurses in Staff Development*, 28(4), 156–162.

Patient Protection and Affordable Care Act, § (2010).

- Rhoads, J., Sensenig, K., Ruth-Sahd, L., & Thompson, E. (2003). Nursing externship: A collaborative endeavor between nursing education and nursing administration. *Dimensions of Critical Care Nursing*, 22(6), 255–258.
- Ruth-Sahd, L. A., Beck, J., & McCall, C. (2010). Transformative learning during a nursing externship program: The reflections of senior nursing students. *Nursing Education Perspectives*, 31(2), 78–83.
- 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.
- Spetz, J. (2014). How will health reform affect demand for RNs? *Nursing Economics*, 32(1), 42–44.
- Steen, J. E., Gould, E. W., Raingruber, B., & Hill, J. (2011). Effect of student nurse intern position on ease of transition from student nurse to registered nurse. *Journal for Nurses in Staff Development*, 27, 181–186.
- Stinson, S., & Wilkinson, C. (2004). Creating a successful clinical extern program using a program planning logic model. *Journal for Nurses in Staff Development*, 20(3), 140–144.
- The Advisory Board Company. (2012). *Three key elements for successful population health management*. Retrieved from <http://www.advisoryboard.com>
- Tritak, A. B., Ross, B., Feldman, H., Paregoris, B., & Setti, K. (1997). An evaluation of a nurse extern program. *Journal of Nursing Staff Development*, 13(3), 132–135.
- Williams, C. A., Goode, C. J., Krsek, C., Bednash, G. B., & Lynn, M. R. (2007). Post baccalaureate nurse residency 1-year outcomes. *Journal of Nursing Administration*, 17, 357–365.
- Woodtli, A., Hazzard, M. E., & Rusch, S. (1988). Senior internship: A strategy for recruitment, retention, and collaboration. *Nursing Connections*, 1(3), 37–50.