Nurse Residency Programs

Key Components for Sustainability

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The purpose of this integrative literature review was to identify commonalities among nurse residency programs deployed for greater than 3 years, showing improved job retention and satisfaction. The Johns Hopkins Nursing Evidence-Based Practice Model guided this review. Successful, sustainable nurse residency programs have a strong foundation with committed leadership to support transition; a structured program with defined outcomes to promote clinical competence, safe patient care, and professional development; and an evaluation process to guide continual improvement and meet organizational needs.

Nursing is the hardest job you will ever love.” This commonly heard statement from seasoned nurses speaks of wisdom that only years of practice can bring. Seasoned nurses are retiring or leaving the profession faster than new nurses are graduating. The Bureau of Labor Statistics for 2012–2022 predict that 525,000 retiring nurses, combined with a job growth of 19%, will create a need for 1.05 million new nurses by 2022 (Rosseter, 2014). In the midst of such a nursing shortage, the greatest challenge lies in developing the next generation of professionals as efficiently as possible.

The expertise required of a nurse in the hospital setting is gained through experiential learning, yet without access to a residency program, new nurses are no longer afforded that privilege. Rather than being nurtured in entry-level settings, new nurses are hired directly into high-paced, high-demand positions (Rush, Adamack, Gordon, Lilly, & Janke, 2013). These newly qualified nurses bring a baseline of knowledge and an eagerness to learn, but they are transitioning into practice with inadequate preparation (Letourneau & Fater, 2015). Staffing challenges and burdens put on new nurses have led to increased stress levels with decreased job satisfaction; a striking 37% of new nurses leave the profession by their second anniversary (Rosseter, 2014).

The Institute of Medicine report (IOM, 2011) The Future of Nursing recommended nurse residency programs (NRPs) to support newly qualified nurses' transition into practice. Is nurse residency the best way to retain new nurses? Many models and programs have been developed in response to the IOM's call for action. Evidence in practice has identified that NRPs can be effective in improving nurse retention and job satisfaction (Cline, LaFrentz, & Fellman, 2017).

An examination of the literature revealed that NRPs have assisted in improving nurse retention and job satisfaction (Chappell & Richards, 2015; Dwyer & Hunter Revell, 2016; Fiedler, Read, Lane, Hicks, & Jegier, 2014). However, a deeper analysis of the literature exposed extensive variability in theory, design, implementation, evaluation, and outcomes of NRPs. This variability limited the methodology of analysis and conclusions that can be drawn regarding best practices in NRPs (Anderson, Hair, & Todero, 2012, Rush et al., 2013). One author recommended that standardized or commercially available programs are critical for success (Cochran, 2017). Other opinions suggested that hospitals or healthcare organizations would do better to utilize an internally developed residency program to achieve similar outcomes (Cline et al., 2017; Edwards, Hawker, Carrier, & Rees, 2015). This article adds to the literature an extrapolation of the evidence into a concise framework for developing a hybrid or standardized model that will bring sustainable success in designing a NRP.

The evidence-based practice (EBP) question was identified and developed based on professional experiences in planning and executing NRPs and a preliminary examination of the evidence. The research question was the following: In NRPs in existence for 3 years or longer that have shown improvement in newly qualified nurse retention and job satisfaction, what components are vital in developing a sustainable program?

**METHOD**

The Johns Hopkins Nursing Evidence-Based Practice (JHNEBP) Model (Table 1) was used with permission (Kim Bissett, personal communication, May 31, 2018) to guide the integrative review. The JHNEBP Practice Question-Evidence-Translation process guided each step of the review (Poe & White, 2010).
<table>
<thead>
<tr>
<th>Evidence Levels</th>
<th>Quality Ratings</th>
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<tbody>
<tr>
<td><strong>Level I</strong></td>
<td></td>
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<tr>
<td>Experimental study randomized controlled trial (RCT)</td>
<td><strong>Quantitative studies</strong></td>
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<tr>
<td>Explanatory mixed-method design that includes only a Level I quantitative study</td>
<td>A: <em>High quality</em>: Consistent, generalizable results; sufficient sample size for the study design; adequate control; definitive conclusions; consistent recommendations based on comprehensive literature review that includes thorough reference to scientific evidence.</td>
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<tr>
<td>Systematic review of RCTs, with or without meta-analysis</td>
<td>B: <em>Good quality</em>: Reasonably consistent results; sufficient sample size for the study design; some control, fairly definitive conclusions; reasonably consistent recommendations based on fairly comprehensive literature review that includes some reference to scientific evidence.</td>
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<tr>
<td></td>
<td>C: <em>Low quality or major flaws</em>: Little evidence with inconsistent results; insufficient sample size for the study design; conclusions cannot be drawn.</td>
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**Level II**

Quasi-experimental study

Explanatory mixed-method design that includes only a Level II quantitative study

Systematic review of a combination of RCTs and quasi-experimental studies, or quasi-experimental studies only, with or without meta-analysis

**Qualitative studies**

No commonly agreed-on principles exist for judging the quality of qualitative studies. It is a subjective process based on the extent to which study data contribute to synthesis and how much information is known about the researchers’ efforts to meet the appraisal criteria.

*For meta-synthesis, there is preliminary agreement that quality assessments of individual studies should be made for synthesis to screen out poor-quality studies.*

A/B: *High/Good quality*: used for single studies and meta-synthesis.

The report discusses efforts to enhance or evaluate the quality of the data and the overall inquiry in sufficient detail and it describes the specific techniques used to enhance the quality of the inquiry. Evidence of some or all of the following is found in the report:

- **Transparency**: Describes how information was documented to justify decisions, how data were reviewed by others, and how themes and categories were formulated.
- **Diligence**: Reads and rereads data to check interpretations; seeks opportunity to find multiple sources to corroborate evidence.
- **Verification**: The process of checking, confirming, and ensuring methodologic coherence.
- **Self-reflection and scrutiny**: Being continuously aware of how a researcher’s experiences, background, or prejudices might shape and bias analysis and interpretations.
- **Participant-driven inquiry**: Participants shape the scope and breadth of questions; analysis and interpretation give voice to those who participated.
- **Insightful interpretation**: Data and knowledge are linked in meaningful ways to relevant literature.

C: *Low quality*: studies contribute little to the overall review of findings and have few, if any, of the features listed for high/good quality.

**Level III**

Nonexperimental study

Systematic review or a combination of RCTs, quasi-experimental and nonexperimental studies, or nonexperimental studies only, with or without meta-analysis

Exploratory, convergent, or multiphasic mixed-methods studies

Explanatory mixed-method design that includes only a Level III quantitative study

Qualitative study meta-synthesis

(continues)
Search terms included new graduate nurse*, newly qualified nurse*, nurse residency, outcomes, retention, sustainability, transition, staffing turnover, and job satisfaction. Inclusion criteria consisted of peer-reviewed nursing EBP publications dated from 2007, newer NRPs within hospital acute care settings, programs sustained for 3 years or longer with program evaluations and outcomes, and US or Canadian publications.

A literature search was conducted in CINAHL, Mosby’s Clinical Key, OVID, PubMed: Medline, and Sigma Wiley Online Library. Of the original 98 articles identified, 14 were found to meet inclusion criteria. In addition, four
specifically cited articles were searched and found to meet inclusion criteria. A total of 18 articles were retained for the integrative review (Figure 1). The final 18 articles are presented with an asterisk in the references. Search selection and data retrieval were conducted independently by the first author (see Supplemental Digital Content 1, http://links.lww.com/JNPD/A18). The second author verified that article selection was conducted per protocol.

RESULTS

This review indicated inconsistency among programs (Anderson et al., 2012; Edwards et al., 2015; Rush et al., 2013). The IOM recommended NRPs, but gave little direction as to how they should be structured (IOM, 2011). The need for consistency or a standardized process has been recommended in most of the literature reviewed.

There have been several attempts at developing standardized programs, with the University HealthSystem Consortium/American Association of Colleges of Nursing (UHC/AACN) Model being the most prominent (Anderson et al., 2012; Chappell & Richards, 2015; Fiedler et al., 2014; Fink, Krugman, Casey, & Goode, 2008; Goode et al., 2013; Goode, Ponte, & Sullivan Havens, 2016; Rosenfeld et al., 2015; Van Camp & Chappy, 2017). Other successful programs include the Versant Model and the Transition to Practice Model (Chappell & Richards, 2015; Goode et al., 2016; Ulrich et al., 2010; Van Camp & Chappy, 2017). The conclusion by Edwards et al. (2015) was that the model was not as important as staff support, which produced the desired outcomes. Spector and Echternacht (2010) recommended for nursing to come together to form a nationally standardized NRP. It was also recommended that all newly qualified nurses participate in an accredited NRP (Goode et al., 2016).

Key components to a successful NRP encompassed a strong foundation built on organizational leadership that included a dedicated resource and healthy work environment, a structured program developed within a theoretical framework that provided a curriculum designed to meet program objectives, and an evaluation process that utilized nurse resident feedback to guide improvements to the program (Figure 2).

A Strong Foundation

Critical to achieving lasting success of any undertaking was a strong foundation built on organizational backing and committed leadership. Nurse residency programs can be successful with the proper support and resources. A program coordinator or dedicated resource was vital to maintaining momentum and consistency (Rush et al., 2013). Even more significant was the influence of authentic leadership in supporting positive transitional experiences for new nurses (Dwyer & Hunter Revell, 2016). Essential to any successful model was this key person to facilitate coordination and teamwork with content experts. Most studies failed to identify this person or role; however, it was...
implied in the discussion of program facilitation and program costs (Goode et al., 2013; Ulrich et al., 2010).

Healthy work environments were crucial to any focus on retention. Cochran (2017) described the healthy work environment as supporting effective communication, promoting professionalism, and nurturing a learning environment. In Magnet-designated hospitals, a strong nursing presence promoted a positive work culture and peer support for new nurses (Goode et al., 2013). Other organizational factors such as structures that contribute to professional practice within the environment may influence new nurses’ perceptions of workplace culture. For example, access to growth opportunities, information, resources, and peer support were seen as positive influential factors (Dwyer & Hunter Revell, 2016). Healthy work environments affect far more than the success of NRPs. All nurses are influenced by a healthy work environment, which plays a role in the successful transition of new nurses into practice.

A Structured Program

Foundational framework/model

Evidence-based practice is essential to the development of any program in nursing. Benner’s (2001) novice-to-expert model is consistently cited in the literature as a foundational model on which many nursing programs and concepts are developed. Benner’s (2001) model also serves as the framework on which the UHC/AACN, Versant, Transition to Practice, and custom-designed NRPs are built (Anderson et al., 2012; Rosenfeld et al., 2004; Spector & Echternacht, 2010; Ulrich et al., 2010). Benner (2001) presents an explanation to the way novice nurses develop critical thinking through experiential learning; also discussed is how these experiences eventually lead to the nurse’s ability to clinically reason, a goal that has been identified for most NRPs.

Defined outcomes

Further development of an NRP framework included defined outcomes, as well as learning objectives geared toward the nurse residents. Ideally, the learning objectives are what guide curriculum development (Anderson et al., 2012; Chappell & Richards, 2015; Cochran, 2017; Dwyer & Hunter Revell, 2016; Goode et al., 2016; Rush et al., 2013; Van Camp & Chappy, 2017). The evidence is clear that certain nursing competencies are necessary for a smooth transition into practice.

The UHC/AACN model identified that the nurse would develop clinical knowledge and skills to meet the demands of professional nursing practice in an acute care setting (Rosenfeld et al., 2004). The Versant Model was designed to assist nurses to become confident and provide competent, safe patient care (Ulrich et al., 2010). The Transition to Practice model by Spector and Echternacht (2010) identified program objectives to include clinical reasoning and patient safety. Other desired outcomes focused on the development of clinical leadership, safe patient care, and professional development (Cline et al., 2017; Kramer et al., 2012). Cochran (2017) pointed out that it is also important to consider the needs of the new nurses themselves so as to feel supported and declare their intent to stay with the organization. Overall, NRPs designed with well-defined goals can be influential in transitioning a new nurse into professional practice.

Analysis of NRPs from the literature revealed certain commonalities that appear to be key in achieving success. The curriculum of successful NRPs included trained preceptors, dedicated mentors, a didactic component that
included opportunity for peer socialization, and a correlated clinical immersion. Other influential modalities included a determined program length, most commonly 12 months, and a robust evaluation process, which was critical for sustainability.

**Trained preceptors**

Traditional to nursing orientation are trained preceptors. The literature indicated that this person-to-person relationship is critical for NRPs. Dwyer and Hunter Revell (2016) promoted that preceptors serve as leaders, helping to balance relationships and transition for the new nurse. Identified by Rush et al. (2013) as someone serving in this loosely defined role of trainer, resource, support, and mentor, the preceptor was also key to the socialization of the new nurse. Moreover, it was also recognized that nurse residents desired consistent preceptors to help foster relationships and skills development (Cochran, 2017; Fink et al., 2008). Training programs for preceptors should be formal and focus on authentic leadership including effective feedback and communication (Dwyer & Hunter Revell, 2016; Rush et al., 2013).

Offered as a variation to the traditional preceptor model, Ulrich et al. (2010) discussed the concept of team precepting as used in the Versant Model. This innovative concept was designed to have a newer nurse serve in the primary preceptor role, while overseen and mentored by a senior nurse. This model was found to benefit both the newer preceptor in being supported, as well as preserving the senior nurse from burn-out due to the continual demand (Ulrich et al., 2010). Kramer et al. (2012) recommended that Preceptor Councils could provide structure and training that have been determined to be crucial. Overall, most critical was the need for a well-developed preceptor-to-nurse relationship to facilitate transition into practice (Spector & Echternacht, 2010).

**Dedicated mentors**

Nurse residency programs promote an ongoing relationship beyond the initial preceptor period (Anderson et al., 2012; Cochran, 2017; Rush et al., 2013). Defined mentor relationships were just as crucial to the successful transition of new nurses as preceptors (Anderson et al., 2012; Edwards et al., 2015; Rosenfeld et al., 2004). Mentors encouraged critical thinking and provided feedback and support for extended periods of time beyond the initial training period (Edwards et al., 2015; Rosenfeld et al., 2004; Spector & Echternacht, 2010). Ulrich et al. (2010) suggested that mentoring with debriefing should include structured sessions with guidelines to provide specific focus for discussions. Ultimately, mentors model professionalism and instill confidence in the new nurse, as well as provide stability and sustainability to NRPs.

**Didactic component**

The general consensus from the literature was that a didactic component is vital to NRPs. The UHC/AACN, Versant, and Transition to Practice NRP models promoted a standardized curriculum that is evidence-based (Anderson et al., 2012; Goode et al., 2016; Spector & Echternacht, 2010; Ulrich et al., 2010). Features of the UHC/AACN model focused on leadership skills, patient outcomes, and professional roles (Anderson et al., 2012). The Versant Model included classroom with case studies, team precepting to guide a structured clinical immersion, arranged mentoring-debriefing, and competency validation (Ulrich et al., 2010). In the Transition to Practice Model, Spector and Echternacht (2010) promoted five modules for experiential learning: patient-centered care, communication and teamwork, EBP, quality improvement, and informatics. Other evidence-based elements essential for transition into practice included case studies to promote clinical reasoning, delegation, communication, conflict resolution, prioritization, and peer support (Goode et al., 2013, 2016; Kramer et al., 2012). Didactic sessions were commonly presented as monthly seminars promoting interaction with content experts and peer integration (Goode et al., 2016; Rosenfeld et al., 2015; Rush et al., 2013).

Seminars inspired other benefits, such as building relationships within cohorts. Peer socialization fostered a sense of belonging, comradery, support, and teamwork (Anderson et al., 2012; Fink et al., 2008; Rosenfeld et al., 2015; Rush et al., 2013; Spector & Echternacht, 2010). Dwyer and Hunter Revell (2016) discussed how this interpersonal influence resulted in a psychological capital identified as PsyCap, thus creating a positive influence in self-confidence, optimism, hope in success, and resilience. Fink et al. (2008) suggested that nurse residents need more time to talk about their concerns. Seminar sessions may be invaluable in developing nurse residents through education, training, and socialization. Seminars cannot stand on their own; however, when paired with high-quality trained preceptors and mentors, the NRP seminar may be influential in a new nurses' transition into practice.

**Clinical immersion**

It has been a longstanding tradition in nursing to provide clinical orientation. The literature focused on NRPs with key elements designed to enrich this experience. For example, new nurses stated that starting out on their unit of choice could set the stage for a positive experience (Dwyer & Hunter Revell, 2016). Moreover, a consistent preceptor was found to be helpful in providing uniformity in skills training (Fink et al., 2008). Clinical hands-on-learning led to developing clinical competence, which resulted in a gradual integration into the professional practice role (Kramer et al., 2012).
Clinical competence develops over time. First, with critical thinking, a nurse learns to weigh the options against the evidence to make a clinical decision. Clinical judgment is then acted upon through nursing interventions, followed by reassessment of the results. The cycle then repeats itself. It is through this experiential learning that a nurse develops clinical competence (Benner, 2001; Ulrich, 2012). Nurse residency programs should have a strong nurse–preceptor relationship, instructional support through didactic sessions, and well-coordinated clinical experiences. This perfect triad is what fosters clinical competence, identified in the literature as clinical leadership skills, patient safety, and professional development (Anderson et al., 2012; Dwyer & Hunter Revell, 2016; Fink et al., 2008; Goode et al., 2016; Kramer et al., 2012; Rush et al., 2013; Spector & Echternacht, 2010; Ulrich et al., 2010).

**Program length**

Nurse residency programs typically extended the length of a traditional orientation program in order to achieve desired outcomes. There was much variation in the literature as to what is an ideal length. The average was 12 months, as reflected in the UHC/AACN, Versant, and Transition to Practice models (Goode et al., 2013; Spector & Echternacht, 2010; Ulrich et al., 2010). Other program suggestions ranged from 6 to 24 months, stating considerations related to Benner’s transition stages and issues related to reality shock with conflict resolution (Anderson et al., 2012; Chappell & Richards, 2015; Letourneau & Fater, 2015; Kramer et al., 2012; Rosenfeld et al., 2004; Rush et al., 2013).

Benner (2001) identified the initial transition from novice to advance beginner to last about 12 months. Another important consideration in meeting the transitional needs of the new nurse was Marlene Kramer’s (1974) seminal work on understanding why nurses leave nursing, identified as reality shock. A very real phenomenon, Kramer (1974) suggested that it takes new nurses a minimum of 12 months to transition through this course of rationalizing the reality of what they believed nursing to be and what it truly is. Clearly, variables such as maturity, life experiences, and the actual orientation experience impact conflict resolution and transition through reality shock (Cochran, 2017; Kramer, 1974). Ultimately, NRPs need to provide new nurses with transitional support, as well as achieve other program outcomes.

**An Evaluation Process**

Consistent evaluation of any process improvement or program is critical to maintaining value and sustainability (Sherwood & Barnsteiner, 2012). Nurse residency programs should have defined outcomes with measurable goals attached to each outcome; typically, measurement occurs through data extracted from human resources’ personnel records or through survey instruments (Sherwood & Barnsteiner, 2012). Each article in this integrative literature review discussed an evaluation process. The Casey-Fink Nurse Experience Survey was the most frequently used tool to assess program outcomes due to its robust process for collecting unbiased feedback from nurse residents after program completion (Anderson et al., 2012; Chappell & Richards, 2015; Cline et al., 2017; Dwyer & Hunter Revell, 2016; Fink et al., 2008; Goode et al., 2013, 2016; Letourneau & Fater, 2015; Rush et al., 2013; Van Camp & Chappy, 2017). Evaluation was consistently integrated throughout programs at 3, 6, 9, and 12 months; resident feedback was utilized to continually improve the NRPs to meet the needs of the nurses, as well as the organization (Anderson et al., 2012; Chappell & Richards, 2015; Cochrane, 2017; Dwyer & Hunter Revell, 2016; Edwards et al., 2015; Fiedler et al., 2014; Goode et al., 2016; Rush et al., 2013; Van Camp & Chappy, 2017). The feedback and evaluation were critical to sustaining a program that continues to meet the needs of the nurse residents, as well as the organizational objectives.

**Limitations**

There were several limitations to this literature review. Only one primary reviewer conducted the literature review, thereby limiting interpretation of each article. In addition, the levels of evidence (Poe & White, 2010) for the articles were considered a weakness. The integrative literature review consisted of qualitative studies, retrospective, expert opinion, and literature reviews. Moreover, there was a lack of detail in program design, which limited the ability to assess key components.

**DISCUSSION**

The evidence from this literature review suggests that NRPs are valued and produce results. Identifying the key components to successful and sustainable NRPs is most beneficial for organizations invested in the retention and satisfaction of new nurses. Nurse residency programs require a strong foundation consisting of committed and authentic leadership, a key coordinator, and a healthy work environment; a structured program developed on a nursing framework/model, defined outcomes, trained preceptors, mentors, a didactic component, and a specific program length; and a robust evaluation process based on a structured evaluation tool and consistent periodic feedback from the nurse residents to guide continual updates.

Many organizations appoint a team to design their own hybrid NRP model; other organizations invest in one of the commercially available NRP models. Regardless of the process or program selected, organizations can anticipate achieving desired outcomes by following these key components. Findings from the literature review repeatedly reported a lack of consistency in theory, program structure, and evaluation tools, making it difficult to perform nonbiased evaluation of multiple programs. Clearly, more research...
of NRPs is needed to determine true benefits. The development of a standardized NRP, designed with a foundational framework that allows for minimal organizational modification, could lead to robust experimental research. Nursing research trials completed with the same program nationwide could be critically valuable in determining the true effects NRPs have on new nurse retention and job satisfaction.

References


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