Development of a Preceptor Program for Staff Nurses in an Emergency Department: A

Collaborative Hospital-based Quality Improvement Project

Abstract

Background: Preceptors are expected to foster a successful "transition to practice" for novice nurses and new hires. Preceptor education has been shown to increase retention of novice nurses. The goal of the project was to increase the preceptor's confidence and knowledge on the preceptor role through an evidence-based preceptor program.

Methods: A convenience sample of 4 emergency department staff nurses selected by the emergency department director attended a formal 8 hour preceptor program. The participants completed a survey pre- and post-program to examine comfort and confidence in the preceptor role. The second measurement was a multiple choice question test administered pre- and post-program to assess acquisition of knowledge on the preceptor role.

Results: Paired t tests showed a statistically significant improvement in the comfort, confidence, and overall knowledge of all four participants attending the program.

Conclusion: An 8 hour evidence-based preceptor program demonstrates initial effectiveness in preparing staff nurses in the ED setting to fulfill the preceptor role.

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As health care delivery and technologies change, a need exists for new nurses to be

transitioned from the classroom or other settings to the clinical reality of the emergency

department [ED] (Flynn & Stack, 2006). A preceptor has been defined as an experienced

practitioner who teaches, instructs, supervises, and serves as a role model for a set period in a

formalized program (Usher, Nolan, Reser, Owens, & Tollefson, 1999). Preceptors are expected

to foster a successful "transition to practice" for novice nurses and new hires but may not be

prepared with the appropriate education to fulfill their role. Effective preceptors have been

identified as an important factor in clinical settings to mentor new nurses ((Boyer, 2008;

Hawkins, 2012; McCarthy, 2006).   A proficient orientation program with trained preceptors in

the ED setting prepares the new graduate and the nurse with limited experience to provide safe,

high-quality care.

Background knowledge

The role of the preceptor encompasses many facets and requires support, ongoing

education, and monitoring to ensure the preceptees' needs are met (McCarthy, 2006). Flynn and

Stack (2006) identified successful preceptors possess excellent communication skills, knowledge

of team building, evaluative skills, and clinical proficiency. Boyer (2008) found the protector

role is the foundation of the preceptor role. To effectively perform the protector role, preceptors

need to know how to foster critical thinking in novice nurses.   Warren and Denham (2010)

conducted an extensive literature review on formalized preceptor orientation and student

outcomes. The researchers found preceptors increased confidence and clinical skills in students

completing the program. A qualitative study completed by Glynn & Silva (in press) on a new

graduate internship program in an ED reported the majority of participants state their preceptor was the most influential factor in their development as an ED nurse. The students reported their preceptors helped with role transition and clinical skills.

Rural nursing in the emergency department. The ED setting requires a staff nurse to care for patients with minor to life-threatening illnesses or injuries. High-quality and safe patient care is paramount to patients, family, and the workplace. This fast-paced, life-and-death environment necessitates that a nurse is prepared and proficient in skills to care for patients with a variety of clinical problems.   The ability to recruit nurses with emergency experience is difficult. An additional challenge is that 77.4% of nurses in rural settings are educated at the associate degree level (Newhouse, Morlock, Pronovost, & Sprout, 2011). Rural nurses may see fewer patients through their ED in a month than larger hospitals see in a day and need to be prepared to care for patients across the lifespan who present with a variety of acuity levels (Ross & Bell, 2009). Rural nurses have limited experience with certain emergent conditions. In order to be competent they carry many certifications; advanced cardiopulmonary life support (ACLS), neonatal resuscitation program (NRP), pediatric advanced life support (PALS), and trauma nursing core course [TNCC] (Emergency Nurses Association [ENA], 2012). Ross and Bell (2009) reported that nurses with over 5 years of experience were more comfortable in emergencies. Scheduling a new nurse with an experienced nurse in the preceptor role has been found not only to prepare a new nurse for the challenges of rural nursing but also to increase retention (Andersson, Omberg, & Svenland, 2006).

Best practices. Preceptors are an integral part of an orientation program. Support of an experienced preceptor helps new nurses gain confidence in their skills and advance from a novice to expert nurse (Boswell & Wilhoit, 2004). Review of the literature shows consistent use

of one to two preceptors for each new employee results in the nurse feeling more confident in
her/his abilities and skills (Solheim & Papa, 2010).

Several themes appear in the literature for components included in the education of
preceptors. A review of the literature identifies the common themes as important aspects of a
preceptor education: professional socialization (Jayne, Egan, & Parker, 2005; Kramer, Maguire,
Halfer, Brewer, & Schmalenberg, 2011; Merton, Reader, & Kendall, 1957; Nelson et al., 2006;
Ulrich, 2011); generational differences (Billings & Kowalski, 2004; Blythe et al., 2008; Foley,
Myrick, & Yonge, in press; Leiter, Price, & Spence Laschinger, 2010; Myrick & Yonge, 2005);
learning styles (Rassool & Rawaf, 2007; Troxel, 2009; Willemsen-McBride, 2010; (Zilembo &
Monterosso, 2008); conflict management (Gerardi, 2004; Latham, Hogan, & Ringl, 2008;
Lipsky, Seeber, & Fincher, 2003; The Joint Commission [JC], 2010); development of critical
thinking skills (Boyer, 2008; Buerhaus et al., 2005; Fero, Witsberger, Wesmiller, Zullo, &
Hoffman, 2009; Hawkins, 2012); and how to evaluate performance (Boyer, 2008; Clynes &
Raftery, 2008; Foundation for Nursing Excellence, 2009; Horton, DePaoli, Hertach, & Bower,
2011; Lenburg, 1999; Yonge, Myrick, & Ferguson, 2011).

Local Problem

The administration was unable to recruit nurses with ED experience and chose to hire
nurses with approximately 2 years of medical-surgical experience. The existing orientation
program consisted of 4 to 6 weeks of orientation that included 2 days of general hospital
orientation. The remaining time was spent in the ED caring for patients with a preceptor. No
formal education program existed for the preceptor role. The preceptor assigned to the preceptee
was inconsistent from shift to shift and the new employee had several preceptors during
orientation. The new employees, preceptors, and administration informally reported

dissatisfaction with the inconsistent use of preceptors. Three new hires in the past 2 years,

comprising 50% of new hires, resigned before completing 6 months of employment. Two of

those that resigned informally reported that they felt overwhelmed with the ED environment.

One nurse had over 20 years of experience in same day surgery and one was a new graduate.

The third nurse resigned due to personal reasons. They also felt the ED orientation program was

not long enough to develop the skills they needed to feel confident. .

Study Question

Question 1: Do ED staff nurses who have attended an evidence-based preceptor

education program report increased comfort and confidence with the preceptor role?

Question 2: Do ED staff nurses have an increased knowledge of the preceptor role after

an evidence-based program?

Methods

Ethical Issues

The project was presented to the Institutional Review Board (IRB) at the investigator's

academic institution and the project was determined to not meet the definition of research.

Planning the Intervention

Theoretical framework: Novice to Expert. In her seminal work, Benner (1984)

applies the Dreyfus Model of Skill Acquisition to the nursing profession. She described

judgment and skill development at 5 levels of proficiency: novice, advanced beginner,

competent, proficient, and expert. Each level builds on the previous one as abstract principles

are refined and expanded by gaining clinical expertise through experiential learning.   The novice

level of proficiency is frequently seen in the new graduate or an experienced nurse transitioning

to a new specialty role. The developed preceptor program taught preceptors to identify these

stages and tailor teaching to the stage the orientee was experiencing. The goal of this teaching was to foster critical thinking in orientees and to organize the orientation program to the needs of the orientee.

Preceptor Program Content

The content of the program was developed by completing a literature review to determine "best practices" (Table 1). A variety of teaching strategies were employed: case studies, role-playing, lecture, reflection, discussion, and self-reflection.

Study Design

A quantitative design was utilized to evaluate the preceptor program and consisted of measuring confidence and knowledge acquisition. The preceptor program participants served as their own comparison pre- and post-program.

Setting

The setting was a 142 -bed acute care hospital in the Midwest. Level IV trauma services are provided by the ED. Registered nurses (RN) are the only discipline included in the staffing with a minimum of 2 RNs scheduled per shift The RN staff consisted of 12 full or part-time nurses and several relief positions. The majority of nurses earned an associate's degree with only one prepared at the bachelor's level. The ED director reported five nurses had 25 plus years of experience as an ED nurse. ED visits increased from 200 per month to 500 per month in the past 5 years which resulted in hiring new staff.

Sample

The inclusion criteria were expression of interest, two years of ED experience, and one year of employment at hospital. The convenience sample of 4 emergency department staff nurses was selected by the ED director from 6 nurses that expressed an interest in the preceptor role:

two nurses that worked the day shift and two that worked the night shift. Descriptive data were collected on the four participants (Table 2).

Methods of Evaluation

The tools to examine confidence and knowledge acquisition were developed by the primary investigator. Construct validity was based on melding the questions with the content taught in the preceptor program. Content validity was ascertained by three individuals: the education director at the hospital, the ED director, and a nursing educator at a local community college. The survey to exam confidence was an eight question tool using a 5 point Likert-type scale. The tool to examine knowledge acquisition consisted of 30 multiple choice questions based on the content of the preceptor program.

<div align="center">

Results

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Data Analysis

Preceptor comfort and confidence. Paired *t* tests demonstrated a statistically significant improvement in the comfort and confidence items of all four participants (Table 3).

Preceptor knowledge. The results of the paired t test showed a significant improvement for knowledge acquisition about the preceptor role (premean=44.5%, postmean=95%; p<.01). The test reflected eleven topics taught in the preceptor program (Table 4). The percentage improvement in the topics taught ranged from 8.33% for Reality Shock to 100% for Conflict Resolution.

Discussion

Preceptor Comfort and Confidence

Similar to other research findings, the participants demonstrated significant improvement in confidence and comfort in the preceptor role when surveyed pre- and post-program (Horton et al., 2011; Sandau, Chang, Pan, Gaillard, & Hammer, 2011).

Preceptor Knowledge

The significant results of the pre- and post-test for knowledge acquisition supported that an 8-hour evidence-based preceptor program increased the participants' knowledge of the preceptor role. The test was administered immediately after completion of the program. Horton et al. (2011) surveyed participants 6 months after attending the NPA regarding what tools taught during the academy they utilized post-academy. The investigators found 41% employed critical thinking questions, 15% utilized concept mapping, and 63% set weekly goals with the preceptee.

Study Limitations

The sample size was small. Expanding the program hospital-wide to obtain a larger sample size would strengthen future studies. The study also had no comparison group. The comfort, confidence, and knowledge acquisition were only measured immediately after the program. Beneficial information on retention of knowledge and confidence performing the preceptor role would be gained by surveying participants at 3- and 6-month intervals after the program. Direct observation of the preceptor's application of knowledge was not completed so it is not known if the knowledge is utilized in the preceptor's day-to-day interactions with new employees. Sandau et al. (2011) identified peer observation would strengthen future studies on the effectiveness of preceptor workshops. This is an important in a rural setting because once the preceptor program is completed; the preceptor may have limited opportunity to engage in the

preceptor role. Psychometric testing on the methods of evaluation would lend more credence to future studies.

Recommendations for Future Studies

A successful orientation program is dependent on the whole relationship and not just the preceptor. Future studies would benefit from examining the preceptees' perception of the preceptorship.   One perspective is the evaluation of the preceptor by the preceptee. It would be beneficial to examine comparison groups of those attending a preceptor program and those not attending the program. This may solidify the effectiveness of preceptor education. Additional studies need to examine the appropriate length of orientation based on the preceptees current stage on the novice to expert continuum. Evaluation of the effect of a preceptor education program on cost, retention, recruitment, and employee satisfaction is necessary. This is extremely important due to the state of healthcare and the changes in healthcare on the horizon.

Conclusion

An 8 hour evidence-based preceptor education program is effective in preparing staff nurses in the ED setting to fulfill the preceptor role as evidenced by (1) self-reports of significantly increased comfort and confidence with the preceptor role and (2) significant improvement of knowledge about the preceptor role.

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Table 1

Nurse Preceptor Program Content

Topics	Salient Points	Objectives
Preceptor Roles & Responsibilities	Roles: Protector, Educator, Evaluator, Facilitator Attributes of a preceptor	Identify the responsibilities, roles, and expectations of a nurse preceptor. Distinguish between the preceptor roles.
Reality Shock	Recognition of stages Mentoring techniques for each stage	Describe the theory behind reality shock triggers and effective ways to overcome them.
Generational Considerations	Characteristics of each generation Mentoring techniques	Identify characteristics of each generation. Apply teaching strategies to the preceptee's generation
Cultural Diversity	Triggers for bias Best practices	Apply best practices to improve cross cultural interactions with preceptees. Describe the factors influencing cultural competence that impact the preceptor.
Learning Styles	Experiential learning VARK	Determine how your own learning style can affect the way you precept. Identify a variety of teaching strategies that meld with the preceptee's learning style.
Adult Learning Principles	Principles of adult learners Teaching strategies for adult learners	Define the learning process of adults using evidence-based adult learning principles. Apply adult learning principles to diverse learning styles.
Teaching Styles	Teacher vs. learner centered Teaching strategies for the three learning domains	Differentiate between proactive and reactive teaching. Apply teaching strategies to the three domains of learning.
Providing Feedback	Feedback approaches Guidelines for effective feedback	Provide constructive feedback to the preceptee. Identify feedback approaches.
Managing Conflict	SBAR Methods of Conflict Resolution Challenging preceptees	Identify situations of conflict and apply conflict management strategies.
Developing Critical Thinking	Traditional vs. critical thinking Approaches to develop	Describe how critical thinking is demonstrated in the clinical setting. Identify approaches to foster critical thinking skills in the preceptee.
Competency Assessment & Verification	Methods to assess and verify competency	Define competency in relation to clinical practice. Select methods to develop competency within each domain of learning.

Table 2

Demographics of Participants

Name	Age	Gender	Years Education Completed	Most Advanced Degree	Prior Preceptor Formal Education	Years RN Work Exp.	Years in Current Facility	Years ED Work
Participant 1	44	F	2	Associates	No	21	8	8
Participant 2	26	F	2	Associates	No	4	5	2
Participant 3	51	F	3	Diploma	No	30	27	27
Participant 4	49	F	2	Associates	No	27	5	10

Source: Pre and Post Tests for Nurse Preceptor Program

Mean Values and Value Ranges for sample group:

- Registered Nurse Experience Mean Value is 20.5 years

- Years in Current Facility Mean Value is 11.25 years

- Years in Emergency Department (ED) Mean Value is 11.75 years

Table 3

Confidence Improvement Measurement

Confidence Measurement Questions (1 = very uncomfortable/ no confidence and 5 = very comfortable/confident)	Pre Test Mean Score	Post Test Mean Score	Improvement Score Paired *t* Test	Probability of Type 1 Error
How confident are you with fulfilling the expectations /roles of a preceptor?	2.25	4.50	2.25	0.0182
How confident are you with the tools/resources available to assist you to be an effective preceptor?	2.00	4.75	2.75	0.0016*
How comfortable are you with implementing teaching strategies that account for generational differences?	2.75	5.00	2.25	0.0029*
How comfortable are you in working with an orientee who has a different personality or learning style than yours?	2.75	4.80	2.05	0.0000*
How confident are you in applying concepts that develop critical thinking in the orientee?	1.25	3.75	2.50	0.0032*
How confident are you in working with an orientee of a different ethnic background than yours?	3.25	4.75	1.50	0.0138*
How confident are you in helping new graduates/employees develop competence.	1.25	4.00	2.75	0.0016*
How confident are you in providing positive and constructive feedback to an orientee?	2.50	4.75	2.25	0.0029*

Source: Pre/Post Confidence Questionnaire for Preceptor Program

*p $\leq$ .01

Note:

- Each item on the confidence questionnaire was measured independent from one another.

Table 4

Nursing Preceptor Knowledge Measurement

Topic	Pre Test Mean Score %	Post Test Mean Score %	Percent Improved
Preceptor Roles	16.67	100.00	83.33
Providing Feedback	56.25	100.00	43.75
Conflict Resolution	0.000	100.00	100.00
Evaluation	55.00	100.00	45.00
Reality Shock	91.67	100.00	8.33
Adult Learning Principles	50.00	75.00	25.00
Learning Styles	37.50	93.75	56.25
Critical Thinking	43.75	93.75	50.00
Generational Differences	62.50	100.00	37.50
Cultural Differences	33.33	91.66	58.33
OVERALL	44.67	95.42	50.75

Source: Pre and Post Tests for Nurse Preceptor Program