Effect of a Preceptor Education Workshop: Part 1. Quantitative Results of a Hospital-Wide Study

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Abstract

Background: This study examined the hospital-wide effect of a mandatory 8-hour preceptor workshop on preceptors and orientees.

Methods: A mixed-methods approach (QUAN + qual) with a quasi-experimental design was used to test nurse preceptors' self-reported confidence and comfort (pre- to post-workshop) in five specific roles in addition to the frequency of coaching critical thinking and providing formal feedback. Additionally, survey items compared cross-sectional cohorts of preceptors and orientees pre- to postworkshop. Orientee retention rates were compared for 1 year before and 1 year after the workshop.

Results: Findings from the QUAN portion of the study are presented. Paired t tests showed that preceptors (n=131) reported significantly improved results for confidence and comfort in all five specific preceptor roles measured 3 to 6 months after workshop attendance; coaching of critical thinking was increased, whereas provision of formal feedback was not. Preceptor-reported comfort and confidence were not significantly greater in the cohort who participated in the workshop compared with the noninterventional cohort (n=74). Among orientees, satisfaction with preceptors was not significantly improved for the cohort whose preceptors had attended training (n=53) versus the previous cohort (n=39). Among orientee cohorts, greater confidence in critical thinking skills on completion of orientation occurred only among experienced transfer nurses. Orientees who had three to four preceptors reported the highest composite satisfaction. One year postintervention, significantly more orientees were retained (125 of 132) than in the previous year (82 of 94) (chi-square, p<.05).

Conclusion: Preceptor workshops are effective in preparing experienced nurses to precept new nurses, as measured by self-reported development of preceptors and retention of orientees.

or more nurse preceptors to learn areas such as procedures and policies, observe and practice new skills, and become familiar with the patient population, routine, and culture in the new environment. By the end of the precepted experience, the orientee must be able to demonstrate all core competencies for the unit (Peterson & Berns, 2005).

**REVIEW OF THE LITERATURE**

Preceptors are expected to provide successful education, socialization, and role modeling, yet may not receive education on how to be effective. Hospital leaders may stress the promotion of critical thinking and appreciation of diversity and different learning styles among new nurses; however, few prospective studies evaluate whether hospital-wide education programs can successfully equip preceptors for these tasks. Few studies have examined the relationship between preceptor education and retention of orientees.

Research on preceptorship experiences has often focused on nursing students rather than practicing nurses, so supporting data for appropriate preceptor development, evaluation, and outcome of practicing nurses are limited. Challenges to nurses undergoing orientation are overwhelming. Roth (2008) noted that because of the rapidity of computerized National Council Licensure Examination-Registered Nurse results, the new graduate nurse no longer has a buffer period to practice as a graduate nurse under direct supervision of an experienced nurse: “High patient acuity and complexity, high workplace expectations, and new nurses’ feelings of inadequacy all contribute to an estimated 33% to 69% of new nurses changing positions within a year of graduation” (p. 216). Salt, Cummings, and Profetto-McGrath (2008) listed factors contributing to nurse turnover: “difficulty with role transition, reality shock, job satisfaction, pay, negative organizational climate, self-concept, and horizontal violence” (p. 287). Experienced nurses need effective orientation and preceptorship as well.

Many hospital administrators are realizing the importance of facilitating the integration of new nurses during orientation and in the period thereafter, in the hope of increasing retention. The financial effect of turnover in acute care settings is significant. Turnover is costly and also may contribute to exhaustion among preceptors. Jones and Gates (2007) provided a thorough discussion of the direct and indirect costs of nurse turnover. According to a survey in acute care facilities, replacing a nurse costs approximately 200% of the nurse’s salary (HSM Group, Ltd., 2002). Combined direct and indirect costs for replacing only one nurse have been estimated at $92,442; this increases to $145,000 for a specialty area nurse (Robert Wood Johnson Foundation, 2006).

Salt et al. (2008) reviewed 16 interventional studies by health care organizations to increase retention rates for new graduate nurses. Only 1 of the 16 studies evaluated a preceptor program model with a preceptor focus, the intervention in the current study. The authors (Shermont & Krepic, 2006) reported retention of 96% of new nurses at 1 year compared with 46% before the preceptor program was initiated. Speers, Strzyzewski, and Ziolkowski (2004) discussed the role and recognition of preceptors and described the educational workshop for preceptors at their large hospital. Feedback from preceptors was positive, with participants stating that they had learned some new information and that they felt appreciated and valued. However, no formal learning assessment was done, and the effect on orientees was not evaluated.

Although preceptors may value their role, they recognize it as a stressful one, primarily because preceptors take on an increased workload and assume responsibility for the work of the orientee (Hautala, Saylor, & O’Leary-Kelley, 2007). An organized approach to educating preceptors may enhance preceptors’ satisfaction and provide supporting evidence that a hospital is actively interested in professional development of their experienced nurses. Many hospitals are pursuing national quality indicators that require deliberate effort in assessing and intervening to improve nurse satisfaction and professional development. For example, there are increasing data from the National Database of Nursing Quality Indicators to support the link between nursing satisfaction and better patient outcomes (Montalvo, 2007). The increasingly coveted recognition of Magnet status for hospitals requires supporting evidence that the hospitals provide professional models of care and develop systems and education that support nurses as teachers (American Nurses Credentialing Center, 2004). Continuing education strengthens nursing practice, administration, and research, and will ultimately improve the health of clients.

Hospitals vary in the type and length of preparation offered to experienced nurses in preparation for the role of preceptor; both 1-day and 2-day basic preparation programs for preceptors have been reported (Almada, Carafoli, Flattery, French, & McNamara, 2008; Golden, 2008). During the 3 to 4 years before the current study, the study hospital had neither offered nor required preceptor education. Thus, the level of education for nurses regarding precepting varied from some previous education to no education. In 2004, the Minnesota Nurses...
Association stipulated that a new 8-hour paid preceptor workshop be mandatory for all nurses desiring to be preceptors. The Minnesota Nurses Association worked with hospitals to develop the workshop, and the hospital was contractually obligated to provide this education to all preceptors.

GOALS OF THE STUDY

The intervention in this study focused on equipping preceptors for their role in the unit-specific phase of orientation (Figure). An 8-hour preceptor workshop was designed to provide professional development to experienced nurses who interviewed and were selected to be preceptors for new nurses on their units. This study examined the effect of mandatory preceptor education on the following factors:

- Preceptors via self-report of confidence and comfort as well as frequency in actively coaching critical thinking and providing orientees with positive and constructive feedback.
- Orientees via self-report of confidence and satisfaction with preceptors.
- Retention of orientees.

Finally, differences among departments (for confidence and comfort of orientees and preceptors) and the optimal number of preceptors were explored.

The authors hypothesized that preceptors who attended an 8-hour preceptor workshop would show greater confidence and comfort in five areas of the preceptor role when measured by survey 3 to 6 months after the workshop. Similarly, they hypothesized that retention of orientees would be improved the year after the preceptor workshop compared with the previous year. The authors did not hypothesize regarding the optimal number of preceptors or possible differences by department.

METHODS

Use of Theoretical Frameworks as a Foundation for the Curriculum

The preceptor curriculum was based on the seminal work of Benner (1984), which described five levels of expertise in clinical practice. The concepts of novice to expert were included in topics throughout the workshop and provided the basis for the outcome-based competency assessment tools that the preceptors used to assess their orientees. During the interactive workshop, preceptors learned how to identify characteristics of levels of nursing expertise, from novice (typically a nursing student) to expert nurse (who has several years of experience and can practice almost intuitively, without linear thought processes). Preceptors received guidance on how to identify the stage of their orientees and how to tailor teaching and expectations based on each orientee’s level of expertise.

Improvement in the critical thinking of nurses has been cited as a goal for many hospital administrators and quality coordinators. However, the term is often poorly explained, and preceptors may be given no specific tools to equip them to develop critical thinking among themselves or their orientees. In the current study, an emphasis during the workshop was a clear understanding of the process of coaching critical thinking.
for orientees, tailored to their levels of expertise. During the workshop, preceptors were provided with a thorough explanation of the concept and guided through practice sessions on how to tell stories, a practice encouraged by Benner to help illustrate critical thinking by expert nurses (Benner, 1992) to share their experience with orientees. A model developed by Oermann (1998) and Oermann, Truesdell, and Ziolkowski (2000) increased the practical understanding of critical thinking for preceptors and was extended into further practical tools for coaching critical thinking developed by two members of the curriculum team (Sandau & Brede, 2005). Use of a practical mnemonic to coach the critical thinking process was shown through case studies and provided on laminated cards (Sidebar) that preceptors could attach to their name tags to help them remember that critical thinking is an approach to orientation and a process rather than a single competency that can be checked off by an orientee.

In addition to the educator role, two other dimensions of the preceptor role include socializer and role model. The latter two roles are less recognized, but play a large part in retention. The use of cognitive rehearsal to deflect lateral (also known as horizontal) violence (“nurses eating their young”) was depicted in skits, and preceptors were encouraged to coach their orientees to recognize verbal or nonverbal violence directed at them as unacceptable and give direction for confronting this behavior. Education about lateral violence and the use of cognitive rehearsal (sentence prompts) was shown by Griffin (2004) to significantly increase new nurse retention.

Recognition and respect for diversity in patient populations has been a hospital accreditation expectation for several years. However, less attention has been given to developing curriculum specific to diversity among orientees and preceptors. The approach toward diversity in this workshop included biological diversity (e.g., race, gender, and age) as well as acquired diverse characteristics (e.g., personality, learning style, and intergenerational diversity). A media presentation that was developed for the workshop provided interviews with nurses who had recently completed orientation and who described both negative and positive experiences during their orientation; an experienced preceptor and a manager discussed positive aspects of diversity. Small and large group discussions were facilitated to promote awareness of one’s own culture and evaluation of the organization’s sensitivity toward similarities and differences. The preceptors were challenged to synthesize all of the material presented by participating in small groups to solve a variety of complex case studies related to challenges in precepting.

**Study Design**

A mixed-methods approach (QUAN + qual) with a quasi-experimental design for the interventional QUAN portion of the study was used to test nurse preceptors’ self-reports (pre- to postworkshop) of confidence and comfort in five specific roles. Although the preceptors were not randomized to receive the education, they served as their own comparisons for baseline and postintervention surveys, constituting a one-group pretest-posttest design (Polit & Beck, 2008). Additionally, preceptors from the previous year who had not received the intervention were surveyed, thus providing a historical comparison group (Polit & Beck, 2008).

Cross-sectional cohorts of orientees (before and after the workshop) were surveyed and compared to assess orientee satisfaction with preceptors and orientee confidence on completion of orientation. Retention rates were compared for orientees for 1 year before versus 1 year after the workshop.

The Figure provides the timeline for the use of different approaches to evaluate the hospital-wide effect of an educational intervention for nurse preceptors. Before the educational intervention, a cross-section of past preceptors and past orientees received a one-time survey (Cohort 1). Then a different group of individual preceptors (Cohort 2) who participated in an educational intervention was asked to complete a survey both before and 3 to 6 months after the workshop. Similarly, a different group of orientees (Cohort 2) whose preceptors had participated in the workshop was surveyed.

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**SIDEBAR**

**LAMINATED PROMPT CARD FOR PRECEPTORS: A “MAP” TO COACHING CRITICAL THINKING**

<table>
<thead>
<tr>
<th>M: Missing relevant information</th>
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</thead>
<tbody>
<tr>
<td>• What other information might you want to know?</td>
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<tr>
<td>• What do you think led to this . . . (patient condition, interpersonal conflict resolution)?</td>
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<tr>
<th>A: Anticipation</th>
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<tbody>
<tr>
<td>• What do you think may happen next with this patient?</td>
</tr>
<tr>
<td>• What would you like to see happen now?</td>
</tr>
<tr>
<td>• How can you facilitate that happening?</td>
</tr>
<tr>
<td>• What (tests, interventions) does this patient need?</td>
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</tbody>
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<tr>
<th>P: Prioritization</th>
</tr>
</thead>
<tbody>
<tr>
<td>• What needs to be done first?</td>
</tr>
<tr>
<td>• How did you know what to do first?</td>
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Setting and Sample

A large Midwest hospital, licensed for 926 beds, provided the site for this purposeful sample of preceptors and orientees. This study examined the effect of mandatory preceptor education on the following groups:

- Past preceptors (Cohort 1—Preceptors)
- Current preceptors (Cohort 2—Preceptors)
- Past orientees (Cohort 1—Orientees)
- Current orientees (Cohort 2—Orientees)

Cohort 1—Preceptors included all nurses who had been preceptors within the last year but were not participating in the preceptor workshop to become current preceptors. Cohort 2—Preceptors included all nurses who participated in the preceptor workshop. Cohort 1—Orientees included all nurses who underwent orientation in the year before the workshop was instituted. Cohort 2—Orientees included all nurses who underwent orientation in the year after the workshop was instituted. Nurses hired as educators or managers were excluded. Nurses were sampled from all of the hospital inpatient areas, including medical-surgical, orthopedic-neurology, intensive care, progressive care (telemetry), obstetrics, behavioral health, and operating-procedure rooms. Specific demographic characteristics of the participants were not requested in an effort to protect the identities of those working in small departments; however, characteristics of the staff nurses at the hospital are provided (Table 1).

Measures

Three separate surveys were used: an orientee survey, a baseline preceptor survey, and a follow-up preceptor survey. The one-page orientee survey was designed to assess orientees’ satisfaction with their primary preceptors in various important roles as well as orientee self-confidence on completion of orientation. The preceptor survey was two pages long. The first page included a Likert-type scale for rating satisfaction and confidence in performing five important preceptor roles, including ability to precept a new nurse; actively coach critical thinking; work with an orientee with a different personality or learning style; work with an orientee with a different ethnic background; and provide both positive and constructive feedback to an orientee. Preceptors were also asked how often they actively coached critical thinking and how often they provided both positive and constructive feedback to an orientee. The survey reflected the perception of learning in the context of professional nursing as the process of internalizing an idea or the repetitive use of a related skill so that it is reflected in the nurse’s practice and thinking. One question asked, “For the orientee with whom you’ve worked the most during the past 3 to 6 months, how often have you given formal feedback, both positive and constructive?” The preceptor survey was designed to assess preceptors’ self-reported comfort and actions in their various roles. All surveys included additional space for handwritten comments.

The same survey was completed by the Cohort 1—Orientee and Cohort 2—Orientee groups. The Cohort 1—Preceptor and Cohort 2—Preceptor groups received the same first survey. However, for Cohort 2—Preceptors (who participated in the workshop), a second page was added to the survey. The second page included five additional short-answer items regarding the potential effect of the workshop. All short-answer responses for orientees and preceptors are presented as qualitative findings in a companion article (Sandau & Halm, in press).

The surveys were developed by the primary investigator, who was a member of the preceptor workshop curriculum team. Construct validity was based on creating the survey questions so that they related to the workshop curriculum and based on theories of adult learning and the framework for novice to expert (Benner, 1984). Content validity was established by a panel of three experts: the hospital orientation specialist at the study site, a master’s-prepared clinical nurse specialist involved in critical care education, and a doctorally prepared clinical nurse specialist. Alpha coefficients for internal reliability were calculated from the surveys using the Likert-type portions. For the orientee survey, the correlation coefficient for the seven Likert-type scale items (Cronbach’s...
alpha) was 0.95. For the five Likert-type scale items on the preceptor baseline survey, Cronbach’s alpha was 0.82.

Protection of Human Subjects

Approval was obtained from the hospital’s institutional review board. No identifiable characteristics accompanied the results of surveys, and educators and managers would not see individual pre- or posttest scores. Those who agreed to allow their data to be used signed a consent form at that time.

Procedure

Potential participants were invited to complete the questionnaire tailored for each role. Cohort 1—Orientees, Cohort 2—Orientees, and Cohort 1—Preceptors received surveys in their work mailboxes, with letters inviting them to return the completed surveys with signed consent forms. Cohort 2—Preceptors received a verbal explanation of the study at the beginning of the workshop. They were informed that although evaluations of educational programs were standard expectations for role performance, participants could choose whether they wanted their data included in the research study. Preceptors had the option to exclude their own survey answers from the research study and were given 15 minutes to complete the questionnaire before the formal start of the workshop. For Cohort—2 Preceptors, postintervention surveys were sent out 3 to 6 months after the workshop. Surveys were sent to Cohort 2—Orientees 3 to 6 months after they had completed orientation.

RESULTS

Data Analysis

For the orientee cohorts, the response rate was 40% for nurses new to the hospital and 46% for nurses transferring to a new unit within the hospital. Cohort 1—Preceptors had a 30% return rate. Of the 300 Cohort 2—Preceptors, the completion rate at 3- to 6-month follow-up was 44%. All statistical analyses were conducted using SAS 9.1 for Windows (SAS Institute, Cary, NC).

Research Questions

Question 1. What was the effect of an 8-hour preceptor education program on preceptors’ confidence and comfort in five specific precepting roles?

Baseline surveys were completed at the start of the workshop by preceptors in Cohort 2—Preceptors (n = 300). At 3 to 6 months, paired t tests of follow-up surveys (n = 131) showed that these preceptors reported significantly improved satisfaction with their preceptor education than they had before the workshop. Results for confidence and comfort in all five roles were significantly improved (ability to precept a new nurse; actively coach critical thinking; work with an orientee with a different personality or learning style; work with an orientee with a different ethnic background; and provide both positive and constructive feedback to an orientee). Table 2 provides details of these results.

Two additional survey items asked for self-report about increased action in two other important aspects of precepting: coaching critical thinking and ability to

<table>
<thead>
<tr>
<th>Survey Question (No. of Respondents)</th>
<th>Pre- to Postmean Score*</th>
<th>Paired t Test</th>
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<tbody>
<tr>
<td>How satisfied are you with your previous education regarding education of an orientee? (n = 110)</td>
<td>3.13 to 3.83</td>
<td>p &lt; .0001</td>
</tr>
<tr>
<td>How comfortable are you in working with an orientee who has a different personality or learning style than yours? (n = 116)</td>
<td>3.66 to 3.95</td>
<td>p = .0003</td>
</tr>
<tr>
<td>How comfortable are you in actively coaching critical thinking with your orientee? (n = 96)</td>
<td>4.01 to 4.26</td>
<td>p = .0008</td>
</tr>
<tr>
<td>How confident are you in providing both positive and constructive feedback to an orientee? (n = 96)</td>
<td>4.04 to 4.22</td>
<td>p = .006</td>
</tr>
<tr>
<td>How confident are you with your ability to precept a new nurse? (n = 115)</td>
<td>4.27 to 4.44</td>
<td>p &lt; .0092</td>
</tr>
<tr>
<td>How confident are you in working with an orientee of a different ethnic background than yours? (n = 116)</td>
<td>4.27 to 4.41</td>
<td>p = .021</td>
</tr>
</tbody>
</table>

Note. Although 131 preceptors returned follow-up surveys, usable survey results varied for each survey question. *Responses were provided on a Likert-type scale of 1 to 5, with 5 being highest.
give both positive and constructive feedback. Using paired \( t \) tests, a significant improvement was noted for an individual preceptor in the actual number of times the preceptor worked with an orientee in the previous 3 to 6 months to actively coach critical thinking (premean = 3.12, postmean = 3.25; \( p < .01 \)). Conversely, there was no increase in the number of times a preceptor worked with an orientee to give formal feedback, both positive and constructive (premean = 3.46, postmean = 3.46; \( p = .82 \)). However, many handwritten comments on the survey indicated that the participants had little or no opportunity to precept a new nurse within the 3 to 6 months after the workshop, but that they believed that they had a heightened awareness of the need for frequent feedback.

**Question 2.** Between Cohort 1—Preceptors and Cohort 2—Preceptors (who received the educational intervention), was there a significant difference in comfort, confidence, and the five specific preceptor roles?

Returned, usable surveys from previous Cohort 1—Preceptors (\( n = 74 \)) and Cohort 2—Preceptors (\( n = 131 \)) were compared using independent \( t \) tests. Both cohorts rated themselves fairly highly on confidence and comfort; thus, there was no significant difference between cohorts in ability to precept a new nurse; actively coach critical thinking; work with an orientee with a different personality or learning style; work with an orientee with a different ethnic background; or provide both positive and constructive feedback to an orientee. The only significantly higher score for Cohort 2—Preceptors and Cohort 1—Preceptors was that of satisfaction with education related to precepting (mean = 3.81 vs. 3.30, \( p = .001 \)).

**Question 3.** What was the effect of an 8-hour preceptor education program on satisfaction and confidence among orientees whose preceptors had participated in the preceptor workshop?

Comparisons between Cohort 1—Orientees (\( n = 39 \)) and Cohort 2—Orientees (\( n = 53 \)) showed no significant difference in satisfaction or confidence. There was a trend toward slightly less confidence on completion of the first independent assignment for nurses new to the hospital when Cohort 2—Orientees (mean = 3.68) were compared with Cohort 1—Orientees (mean = 4.00).

However, using factorial analysis of variance (ANOVA), comparisons specifically for transfer nurses (experienced orientees who were previously employed at the same hospital but orienting to a new area) elicited significantly higher scores in two areas. In the area of confidence on completion of the first assignment after completing orientation, the interaction between attending a workshop and calendar year (\( p = .01 \)) was significant, and the year simple effect for transfer nurses (\( p = .03 \)) was also significant, with two-sided \( p < .05 \), indicating statistical significance. Thus, transfer nurses in Cohort 2—Orientees (\( n = 12 \)) reported significantly greater confidence on completion of the first assignment after completing orientation compared with Cohort 1—Orientees (\( n = 14 \)) (mean = 4.50 vs. 3.64).

Similarly, with regard to more confidence in ability to use critical thinking skills, factorial ANOVA showed significantly higher scores for both the interaction between attending the workshop and the calendar year (\( p = .03 \)) and the year simple effect for transfer nurses (\( p = .02 \)). Thus, transfer nurses in Cohort 2—Orientees reported greater confidence in the use of critical thinking on completion of orientation (mean = 4.67 vs. 4.07; \( p = .02 \)) than did nurses new to the hospital.

**Question 4.** Was retention of orientees increased after initiation of the preceptor workshop?

Chi-square tests were used to compare retention rates for orientees (those employed longer than 1 year on the same unit in which they were oriented) for 1 year before versus 1 year after the educational intervention. At 1 year postintervention, the proportion of new nurses (125 of 132) retained was significantly greater than in the previous year (82 of 94) (chi-square, \( p < .05 \)).

**Comparisons of Preceptors and Orientees by Department**

Analyses were performed to determine whether responses from preceptors or orientees differed by nursing department. For preceptors, the seven items for self-rating (clinical ability, role model, teacher, socializer, giving feedback, dealing with the unique background of the individual, and coaching critical thinking) were combined into a proxy variable of “self-assessment as preceptor” (scored 1 to 5 on a Likert-type scale). One-way ANOVA with Bonferroni adjustment for multiple comparisons yielded a significant difference for preceptor self-assessment by department (\( p = .02 \)). These results were primarily attributed to mean score differences of intensive care unit preceptors (4.45) versus obstetric preceptors (3.81) (\( p = .01 \)). This difference was noted only at baseline.

Among orientees, no difference in self-perceived confidence or critical thinking was noted by department (for baseline or follow-up). Survey items in which orientees rated their preceptors’ ability in seven areas (clinical ability, role model, teacher, socializer, giving feedback, dealing with the unique background of the individual, and coaching critical thinking) were combined into a proxy variable of “satisfaction with preceptor.” One-way ANOVA with Bonferroni adjustment for multiple comparisons yielded no significant differences for orientee
Optimal Number of Preceptors

The number of preceptors assigned to each orientee ranged from 1 to more than 10. Factorial ANOVA showed that the mean number of preceptors assigned to each orientee decreased significantly for Cohort 2—Orientees (5.6) versus Cohort 1—Orientees (4.3) (p = .03). In an attempt to identify the ideal number of preceptors, a composite of seven survey items was created as a measure of overall orientee satisfaction. A regression model identified 3.4 preceptors as predictive of highest composite satisfaction, but the model was not statistically significant. A table of means (Table 3) suggests that three to four preceptors per orientee is associated with the highest satisfaction.

TABLE 3

<table>
<thead>
<tr>
<th>No. of Preceptors per Oriente</th>
<th>Satisfactiona</th>
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<tr>
<td>1</td>
<td>6</td>
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<tr>
<td>2</td>
<td>10</td>
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<td>3a</td>
<td>18</td>
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Note. A composite mean for satisfaction was created using items from the orientee’s survey in which the orientee rated the preceptor (clinical ability, role model, teacher, socializer, giving feedback, dealing with the unique background of the individual, and coaching critical thinking). A composite mean for satisfaction was created using items from the orientee’s survey in which the orientee rated the preceptor (clinical ability, role model, teacher, socializer, giving feedback, dealing with the unique background of the individual, and coaching critical thinking). A composite mean for satisfaction was created using items from the orientee’s survey in which the orientee rated the preceptor (clinical ability, role model, teacher, socializer, giving feedback, dealing with the unique background of the individual, and coaching critical thinking). A composite mean for satisfaction was created using items from the orientee’s survey in which the orientee rated the preceptor (clinical ability, role model, teacher, socializer, giving feedback, dealing with the unique background of the individual, and coaching critical thinking). A composite mean for satisfaction was created using items from the orientee’s survey in which the orientee rated the preceptor (clinical ability, role model, teacher, socializer, giving feedback, dealing with the unique background of the individual, and coaching critical thinking).

Study Findings

Question 1. What was the effect of an 8-hour preceptor education program on preceptors’ confidence and comfort in precepting roles?

At 3 to 6 months after the workshop, preceptors who received the intervention reported significant improvement in confidence and comfort in five specific preceptor roles as well as preceptor education in general. These findings support the effectiveness of the 1-day preceptor workshop designed for the authors’ health care institution. Because of the large sample size, the data support an early but growing evidence base supporting hospital-wide preceptor education. Other researchers, using focus groups and interviews 2 to 3 months and 6 to 9 months after preceptor education, found that preceptors (n = 36) reported their 2-day preceptor workshop as helpful (Henderson, Fox, & Malko-Nyhan, 2006); however, preceptors in their study noted that further support was needed through continuing education, effective scheduling, and adequate time while precepting to facilitate feedback and learning for their orientees.

Question 2. Was there a significant difference between Cohort 1—Preceptors and Cohort 2—Preceptors who received the educational intervention?

With regard to preceptor cohorts, past preceptors rated themselves high in comfort and confidence and not significantly lower than current preceptors who received the intervention. This may reflect the fact that a number of past preceptors had previous preceptor training, or it may reflect the adage, “You don’t know what you don’t know.” It was clear that individual pre- to postworkshop confidence and satisfaction were significantly increased for those who received the training. A crossover design testing the effect of the intervention for past preceptors would have been helpful, but was beyond the scope of the institution’s needs and finances.

Question 3. What was the effect of an 8-hour preceptor education program on satisfaction and confidence among orientees whose preceptors participated in the preceptor workshop?

Although their preceptors had received the intervention, Cohort 2—Orientees did not report increased satisfaction or confidence at the completion of orientation. Factors other than the quality of their preceptors could have contributed to dissatisfaction with the orientation experience. For example, several wrote in the comments that they had too many preceptors. In the guidelines implemented for preceptors at the onset of the workshop, a maximum of three preceptors per orientee was stated. However, this ideal was not consistently achieved. The number of preceptors for an orientee decreased significantly; however, five Cohort 2—Orientees reported an unusually high number of preceptors (> 10). These orientees wrote comments about their dissatisfaction with this arrangement. A further analysis of orientees’ comments helped to explain these findings, and the findings are presented in a later article (Sandau & Halm, in press).

Additionally, the framework developed by Boychuk (2009) provides insight as to orientees’ lack of improvement in confidence and satisfaction. Orientees in the current study would have been completing their surveys 5 to 8 months into their first year of practice, a time Boychuk describes as “. . . a crisis of confidence, mitigated by the intersection of insecurities about their practice com-
petency and their fear of failing their patients, colleagues, and themselves” (Boychuk, 2008, p. 446). Fortunately, in the latter half of this stage, which Boychuk termed “being,” new graduate nurses renew their commitment to maturing practice and become more comfortable as their ability and knowledge grow. Krugman et al. (2006) reported that transition into practice is not completed until 9 to 12 months after hire, as evidenced by stress, self-perceived competency, and patient safety issues, such as care prioritization. Casey, Fink, Krugman, and Propst (2004) reported that new graduate nurses believed that it took at least 1 year to feel comfortable and confident in the acute care setting.

**Question 4.** Was retention of orientees increased after initiation of the preceptor workshop?

The retention rate for orientees in the interventional cohort was 95% compared with 87% for the noninterventional cohort. Retention was not as acute a problem for this institution as for many others. For example, Almada et al. (2004) cited a 29% increase in new graduate nurse retention after both an increased length of orientation and addition of a 1-day preceptor workshop. However, the significant improvement in retention in the current study is impressive, considering that the implementation of computerized medical records occurred during the interventional cohort, and this was undoubtedly perceived as a stressful time. Allocating dollars to provide formal support for preceptors and orientees is financially sound. Golden (2008), using a $45,000 estimate for each registered nurse leaving the hospital, reported a $4.8 million savings after initiation of a combined intervention of an improved orientation program and formally trained preceptors. Krugman et al. (2006) showed in a multi-site study that costs for a 1-year new graduate nurse residency program decreased the stress of new graduate nurses, improved care, and provided savings greater than the cost of advertising and recruiting two nurses.

**Study Limitations**

All outcomes were based on self-reports, so augmentation by peer observers (e.g., observation of preceptors by experienced educators to verify excellence in precepting) would strengthen future studies. Cohort 1—Preceptors may have been influenced by previous education or experience in precepting. Among Cohort 2—Preceptors, posttest self-reporting of confidence and comfort included results from some preceptors who indicated that they had had little or no opportunity to precept since the workshop. The lack of opportunity for these preceptors to actually work with orientees may have affected postworkshop findings. Response rates for all participants ranged from 30% to 46%, which, although respectable for survey research, may indicate a lack of important data from missing participants.

**Recommendations for Further Study**

Further study on retention is needed. Factors other than satisfaction with the preceptor may affect orientee satisfaction and deserve more quantitative and qualitative study. Another area for further study is the length of orientation for varying individuals to achieve minimal core competencies before working independently. The transition to practice is a continuum in which new graduate nurses need 12 months to acquire nursing judgment and become more comfortable as their ability and knowledge grow. Krugman et al. (2006) re

**CONCLUSION**

This hospital-wide study provided supporting evidence for a 1-day preceptor workshop to prepare experienced nurses to precept new nurses in acute care, as mea-
sured by both self-reported development of preceptors and retention of orientees. Studies are needed to identify further strategies to support new nurses in the period after completion of initial orientation through the first year in practice.

REFERENCES


