

Professional Development

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Nurses Nurturing Nurses: Outcomes and Lessons Learned

Retention of new graduate nurses is a challenge for acute care agencies. The Academy of Medical-Surgical Nurses sponsored a hospital-based formal mentorship program, Nurses Nurturing Nurses, for interested agencies. The outcomes and lessons learned from this project are presented.

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Retention of new graduate nurses in acute care agencies continues to be a challenge. Attrition rates are high as new nurses report job dissatisfaction, disappointment, and disillusionment with nursing practice (Aiken et al., 2001; Cipriano, 2006; Cowin & Hengstberger-Sims, 2006; Duchscher & Cowin, 2006; Kovner et al., 2007). Health care organizations bear the cost of new nurse attrition. Recognizing the need for strategies to improve the retention of new nurses, the Academy of Medical-Surgical Nurses (AMSN) developed the Nurses Nurturing Nurses (N3) mentorship program in 2003. The project's goal was to enhance nurses' job satisfaction and intent to stay in the agency of employment, thus improving retention. The N3 program's purpose was to examine the effect of a mentor-mentee program on job satisfaction, new nurse confidence, intent to stay, and satisfaction with both the mentor/mentee relationship and the N3 program among new registered nurses.

Nursing Nurturing Nurses Program

The N3 program was designed as a 12-month mentorship program wherein the mentor and mentee would work together to facilitate the transition of the new nurse to professional nursing practice and implement career goals of the mentee. AMSN promoted the program to its members and hospitals. Agencies inter-

ested in the N3 program purchased a packet of materials that included a program overview and information sections for the site coordinator, the mentor, and the mentee. AMSN also appointed a N3 coordinator as the contact person for participating hospitals and an evaluation coordinator who managed the data and analysis.

Once an agency decided to participate in the N3 project, leaders were asked to appoint a site coordinator to serve as project director. The site coordinator was responsible for matching the mentor/mentee dyads, providing orientation for the mentors and mentees, facilitating processes within the agency, and assisting in collection of evaluation data. Agencies did not have to participate in the formal evaluation process; however, for those agencies whose leaders decided to do so, the site coordinator met with the mentors and mentees, explained the study, answered questions, and obtained informed consent. The consent forms and completed data forms were sent to the evaluation coordinator.

After agreeing to the mentorship project, the mentor and mentee received information to assist them in developing their relationship, including tips on how to conduct the first meeting and ways to initiate conversation that would foster communication about the mentee's job expectations and experiences. The dyad also received copies of the instruments that would be used for the evaluation of the project. The site coordi-

nator followed each dyad's relationship and supplied the evaluation materials throughout the study. The mentor and mentee completed the evaluation instruments and mailed them to the evaluation coordinator.

Evaluation materials were collected four times over the 12-month period. At the beginning of the project, mentees completed a background questionnaire. Two weeks later (Time 1), they were asked to complete the nurse job satisfaction and the new nurse confidence scales. At 3 (Time 2), 6 (Time 3), and 12 (Time 4) months, they completed questionnaires on new nurse confidence, intent to stay/job diagnostics, nurse job satisfaction, relationship with mentor, and satisfaction with the N3 program. Mentors completed a background form at the beginning of the mentorship relationship. At 3, 6, and 12 months, they completed questionnaires regarding their relationship with the mentees and satisfaction with the N3 program.

Instruments

Intent to Stay/Job Diagnostic Survey. Mobley (1977) argued that job dissatisfaction is translated into thoughts of quitting with the expectation that quitting eventually will result in a more satisfying job. Part 3 of Hackman and Oldham's (1980) Job Diagnostic Survey (JDS) evaluates the employee's personal feelings about the job (intent to leave/stay with the organization). The three constructs of the third component include the meaningfulness of the work, responsibility for the work, and knowledge of the results. The JDS consists of 15 statements with responses on a 7-point Likert scale (1, *disagree strongly* to 7, *agree strongly*). Internal consistency has been reported (alpha = 0.77). Range of scores is 15-105. Cronbach's alpha for this study was 0.68. The instrument has been cited extensively in the nursing literature (Lin, 1996; Muldoon & Kremer, 1995; Tonges, Rothstein, & Carter, 1998).

Nurse job satisfaction survey. The original Job Satisfaction Scale is a 26-item questionnaire using a Likert scale (1, *high satisfaction* to 5, *low satisfaction*). This scale incorporates factors related to

Maslow's hierarchy of needs and Herzberg's modification of needs into intrinsic and extrinsic factors (Torres, 1988). Items in the job satisfaction survey are grouped into categories that address pertinent job satisfaction concepts (perceptions of work, work conditions, autonomy, recognition, development, relationship with co-workers and management, job satisfaction). The range of scores is 26-130. Two items (#13, # 14) are reverse-scored; a score of 5 indicates *lower* stress or tension. Cronbach's alpha was 0.83; content validity index was 0.92. Cronbach's alpha for this study was 0.87. For the purposes of reporting results in this study, the items were reverse-scored so high scores represented greater satisfaction and low scores indicated lower satisfaction.

New Nurse Confidence Scale (NNCS). The NNCS is a 26-item scale that asks the new nurse to rate his or her degree of confidence in performing several duties related to the staff nurse role. The instrument was designed to use over time to examine changes in confidence during the employee's first 12 months as a new nurse. Fifteen items were developed by the investigator. These items focus on the routine activities of a nurse (e.g., functioning independently in providing patient care, taking a regular assignment of patients, interpreting laboratory tests, delegating patient care activities to unlicensed assistants). Eleven items were taken from Schutzenhofer's Professional Nursing Autonomy Scale (Schutzenhofer, 1988). The 5-point Likert scale allows the participant to indicate her or his degree of confidence in performing the activity (1, *not at all confident* to 5, *very confident*). Range of scores was 26-130. Cronbach's alpha for this study was 0.94.

Mentee "Assessment of the Relationship with the Mentor." This is a 25-item questionnaire originally using a Likert scale of 1 (*not at all*) to 5 (*very much*); *not applicable* was scored as 1. Range of scores was 25-125. Cronbach's alpha for this study was 0.94.

Mentor "Assessment of the Relationship with the Mentee." This scale is a 24-item questionnaire originally using a Likert scale of 1

(*not at all*) to 5 (*very much*); *not applicable* was scored as 1. Range of scores was 24-120. Cronbach's alpha for this study was 0.99.

Mentee's Satisfaction with N3 Program. This uses a 5-point Likert scale (1, *much satisfaction* to 5, *little satisfaction*). Range of scores was 13-65. Cronbach's alpha for this study was 0.96. Participants rated items on professional development; communication with patients, physicians, and other health care providers; and satisfaction related to working with the site coordinator and the mentor. For the purposes of reporting results in this study, the items were reverse-scored so high scores represented greater satisfaction and low scores indicated lower satisfaction.

Mentor's Satisfaction with N3 Program. This survey was a 9-item instrument using a 5-point Likert scale (1, *much satisfaction* to 5, *little satisfaction*); range of scores was 9-45. Cronbach's alpha for this study was 0.95. Participants rated items on personal and professional growth, communication with mentee, and satisfaction related to working with the site coordinator and the mentee. For the purposes of reporting results in this study, the items were reverse-scored so high scores represented greater satisfaction and low scores indicated lower satisfaction.

Outcomes

Over the course of 5 years, 18 hospitals or hospital systems agreed to participate in the evaluation component of the N3 project. These hospitals were located around the country: Northeast (n=4), South (n=10), North Central (n=3), West (n=1). Only 15 were active as determined by receipt of evaluation data. Data were received from 107 mentees; however, no mentor data were received for 11 of these mentees. Similarly, initial data were received from 119 mentors, but no mentee data were received for 23 mentors. At one institution, seven mentor consent and background data forms were received but no mentee matches followed. A total of 96 mentees and mentors completed Time 1 data; only 11 dyads returned Time 4 data.

Sample. The majority of the mentees were new graduates from

Table 1.
Demographic Data for Mentors and Mentees

Variable	Mentor (N=129)	Mentee (n=96)*	
Age	Mean: 41.64 years SD = 8.5 years Range = 0.4-31 years	Mean: 30.66 years SD = 8.3 years Range = 21-53 years	
Gender			
Female	n = 125; 96.2%	n = 92; 95.9%	
Male	n = 5; 3.8%	n = 4; 4.1%	
Race			
Black	n = 7; 5.3%	n = 6; 6.4%	
White	n = 113; 87.7%	n = 76; 80.9%	
Asian	n = 4; 3.1%	n = 5; 5.3%	
Hispanic	n = 4; 3.1%	n = 5; 5.3%	
Other	n = 1; 0.8%	n = 2; 2.2%	
RN education		RN education	Highest education
Diploma	n = 21; 16.3%	n = 8; 8.4%	n = 7; 7.4%
Associate's degree	n = 37; 28.6%	n = 51; 53.7%	n = 43; 45.3%
Bachelor's in nursing	n = 49; 38.0%	n = 34; 35.8%	n = 31; 32.5%
Bachelor's in other discipline	n = 6; 4.7%		n = 9; 9.5%
Master's in nursing	n = 14; 10.8%		n = 4; 4.2%
Master's in other discipline	n = 2; 1.6%		n = 1; 1.1%
Other		n = 2; 2.1%	
Years in nursing	Mean: 15.6 years SD = 9.2 years Range = 1-37 years		
Years in current position	Mean: 6.2 years SD = 6.0 years Range = 0.3-30 years		
Years in agency	Mean: 9.7 years SD = 6.9 years Range = 0.04-31 years		
Areas of practice	Medical-surgical Critical care Cardiac Labor and delivery Surgery Psychiatric care Pediatrics Education	Medical-surgical Critical care Cardiac Operating room/PACU Labor and delivery Rehabilitation	

* Valid percent presented for reported data.

associate's (53.7%) and bachelor's degree in nursing (35.8%) programs. Six (6.3%) had a bachelor's and master's degree in another discipline. Mentees' average age was 30.66 (range 21-53 years). The majority were female (95.9%) and White (80.9%). The majority of the mentors also had a bachelor's (38%) or associate's (28.6%) degree in nursing; 16 (12.4%) had master's degrees in nursing or another discipline. The average age of the mentors was 41.64 (range 22-58). Most were female (96.2%) and White (87.7%). Men-

tors had been in nursing an average of 15.6 years (range 1-37 years), and in their current positions 6.2 years (range 0.3-30 years), and had spent 9.7 years (range 0.4-31 years) in their current places of employment. Most of the mentors (n= 90; 71.4%) were invited to participate in the N3 program. See Table 1 for areas of practice and other background details.

Results. Results from the mentees will be presented first, followed by results from the mentors. It is important to note the attrition in the number of mentees and men-

tors who sent data throughout the study. Reasons for attrition from the study are not clear. However, reports from site coordinators indicated one or both members of the dyad withdrew from the mentorship relationship; some participants failed to return forms even though they were reminded; and some site coordinators were required to get involved with other projects, leaving them no time to facilitate the N3 program. Also, some site coordinators failed to respond to communication from the AMSN N3 coordinator or evalu-

Table 2.
Mentee Mean Scores on Nurse Confidence, Job Satisfaction, Intent to Stay, Relationship With Mentor, and Evaluation of Nurses Nurturing Nurses Program

Variable	Time 1 2 Weeks Post Initiation of N3	Time 2 3 Months	Time 3 6 Months	Time 4 12 Months
New nurse confidence (Range 26-130)	Mean: 73.4 SD = 17.4 Range = 37-114 n = 96	Mean: 92.2 SD = 14.8 Range = 54-121 n = 42	Mean: 98 SD = 13.3 Range = 73-124 n = 27	Mean: 99.3 SD = 15.8 Range = 65-122 n = 10
Job satisfaction (Range 26-130)	Mean: 79.2 SD = 11.5 Range = 55-99 n = 61	Mean: 75.4 S.D. = 11.3 Range = 48-101 n = 44	Mean: 79.6 SD = 11.3 Range = 60-101 n = 26	Mean: 80.2 SD = 11.1 Range = 64-101 n = 9
Intent to stay (Range 15-105)		Mean: 72.7 SD = 7.3 Range = 57-94 n = 47	Mean: 72.0 SD = 7.6 Range = 60-93 n = 28	Mean: 78.3 SD = 8.8 Range = 65-91 n = 11
Relationship with mentor (Range 25-125)		Mean: 109.0 SD = 18.2 Range = 55-125 n = 51	Mean: 107.2 SD = 20 Range = 56-125 n = 30	Mean: 100.9 SD = 23.5 Range = 49-125 n = 11
Mentee evaluation of N3 Program (Range 13-65)		Mean: 36.5 SD = 12.8 Range = 5*-56 n = 50	Mean: 38.1 SD = 13.1 Range = 12*-62 n = 29	Mean: 30.8 SD = 17.6 Range = 13-60 n = 11

* Due to missing data.

ation team; in those cases, the hospital/hospital system was lost to follow up. No documentation is available regarding those dyads that had a successful mentorship relationship but failed to complete the requested evaluation forms.

Mentee results. Results of the mentees' scores on the variables of interest are presented in Table 2. New nurse confidence rose significantly from Time 1 to Time 2, and then remained relatively stable. Although the sample size at 12 months was too small to include in a repeated measures analysis of variance (ANOVA-RM) calculation, the analysis was conducted on mean scores from Time 1 through Time 3; there was a significant increase in nurse confidence scores between Time 1 and Time 3 [$F(2)=47.5, p=0.000$]. Observers would expect the confidence of the new nurse to increase over the first year in practice; however, the fact that it did increase would support the new nurse's intent to stay and enhance job satisfaction.

Job satisfaction was moderately high at Time 1 and remained sta-

ble throughout the study for those participants. The ANOVA-RM results thus indicated no change in job satisfaction over the first 6 months of employment [$F(2)=0.195; p=0.824$]. Intent to stay was measured at Times 2, 3, and 4; participants' scores were moderately high throughout the first 6 months and rose slightly at Time 4. Again, sample size at Time 4 was small and not included in a longitudinal analysis. No difference existed between participant scores on intent to stay at Time 2 and Time 3 [$t(25) = -0.38, p=0.970$].

The mentee's relationship with the mentor was assessed at Times 2, 3, and 4. A slight decrease in satisfaction with the mentor occurred over time, but this decrease was not significant between Times 2 and 3 [$t(27)=0.759, p=0.455$]. Time 4 could not be included in the analysis due to a small sample size. Similarly, the mean scores for the mentees' satisfaction with the N3 program were moderately high and relatively stable at Times 2 and 3 [$t(26) = -1.153, p=0.260$], but declined at Time 4.

Mentor results. The mentors completed questionnaires about their relationship with the mentees and an evaluation of the N3 program at Times 2, 3, and 4 (see Table 3). The mentors' relationship with the mentees was rated relatively high, peaking at Time 3 (6 months). Even though a rise in scores occurred at Time 3, no significant differences in the means existed at Time 2 and Time 3 [$t(31) = -0.315, p=0.775$]. Of interest is the fact that both the mentors and the mentees rated their relationships relatively high throughout the program. The mentors' evaluation of N3 rose somewhat at Time 2 and then remained stable. However, no significant differences existed in the means at Time 2 and Time 3 [$t(30) = -0.191, p=0.850$].

Discussion

A key to the success of a formal mentorship program within an organization is a commitment to mentoring. Mentorship must be a part of the culture of the organization. It must be a recognized structure with formalized processes, fol-

Table 3.
Mentor Mean Scores on Relationship with Mentee and Evaluation of Nurses Nurturing Nurses Program

Variable	Time 2 3 Months	Time 3 6 Months	Time 4 12 Months
Relationship with mentee (range 24-120)	Mean: 91.2 SD = 25.9 Range = 24-120 n = 65	Mean: 96.3 SD = 19.0 Range = 47-120 n = 34	Mean: 91.1 SD = 21.9 Range = 25-118 n = 18
Mentor's evaluation of N3 (range 9-45)	Mean: 22.2 SD = 10.2 Range = 9-45 n = 63	Mean: 26 SD = 7.1 Range = 9-41 n = 35	Mean: 25 SD = 9.1 Range = 9-37 n = 18

low up, and evaluation (Zachary, 2000). Although 18 hospital systems initiated the N3 program, only 15 became active, with most lost to follow up before 12-month mentee/mentor data were received. The realities of an ever-changing workplace likely interfered with the operationalization of the N3 program. The question arises as to the degree of organizational commitment to the N3 mentorship project, particularly when site coordinators were diverted to other pressing activities.

New nurse confidence increased significantly during the first 6 months of the N3 project, particularly between the initiation of the project and 3 months. Although this increase cannot be related directly to job satisfaction and intent to stay, a low level of confidence in performing nursing activities may result in job dissatisfaction followed by a desire to leave the job. Job satisfaction and intent to stay remained relatively stable over 12 months. Intent to stay peaked at 12 months, suggesting respondents were most likely to remain in their current positions beyond completion of the formal mentorship program.

Mentees' relationship with their mentors was relatively high throughout the first year but did drop slightly at 12 months. The mentors' relationship with their mentees peaked at 6 months and declined slightly at 12 months. Although no significant change occurred, the decline of mentees' and mentors' perceptions of their relationship could reflect the onset of a shift in that relationship. As the new nurses became more skilled

and secure in their professional roles, their need for mentor guidance and support decreased.

The mentees' and mentors' rating of the N3 program peaked at 9 months, with slightly lower scores at 12 months. Again, this could be a reflection of the evolution of the mentee-mentor relationship.

Lessons Learned from the N3 Project

- Success of formal mentorship programs is dependent on the organization's commitment to this longitudinal project.
- Site coordinators whose primary responsibility is implementation of the mentorship program are needed to facilitate a successful organizational mentorship program.
- The structure of the N3 program was appropriate for implementation of the mentorship program but not satisfactory for evaluative data collection. As each N3 project was managed within the hospital organization, the AMSN N3 and evaluation coordinators had no influence on the organizational demands that lead to attrition of mentees, mentors, and site coordinators.

Study Limitations

- Although the sample size was acceptable at Time 1, high attrition resulted in a small sample size by Time 4.
- The intent was to compare the retention rates of new nurses who participated in the N3 program to past retention rates within each organization.

These comparisons were not possible due to high levels of attrition.

- The actual causes of attrition of mentees and mentors could not be documented adequately as many site coordinators were lost to follow up or were assigned other duties that took precedence over the mentorship program.

Evidence demonstrates mentoring can make a difference in the retention of new nurses (Boswell, Lowry, & Wilhoit, 2004; Buerhaus, Donelan, Ulrich, Norman, & Dittus, 2005; Douglas & McCauley, 1999; Gibson, 2005; Seibert, 1999). The N3 program offered clinical agencies a structure for initiating such a program. The lack of follow up resulted in insufficient data to determine the effectiveness of the N3 program. However, the results of the N3 project suggest a formal mentorship program may be effective in improving nurse retention if the hospital/hospital system makes a firm commitment to support the mentoring program. ■

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