

# Evaluating the Efficacy of an Evidence-Based Charge Nurse Professional Development Activity at a Highly Complex Veterans Affairs Medical Center

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Incompetent charge nurses negatively impact quality patient care. An analysis of a charge nurse professional development activity intervention included pre- and posttests, an activity curriculum evaluation, and staff satisfaction surveys. Posttest scores improved significantly ( $t = 60, p = .001$ ). All participants rated the professional development activity as highly appropriate and beneficial to their nursing practice.

On fast-paced nursing units, competent charge nurses (CNs) can make the difference between composure and confusion. These frontline leaders manage the daily complex operations of their work environments to maximize healthcare quality by creating optimal healing environments (Burns et al., 2009; Delamater & Hall, 2018; Krugman et al., 2013). CNs guide staff in achieving tasks, ensuring patient needs are satisfied, and promptly addressing problems that arise during the shift (Burns et al., 2009; Clark & Yoder-Wise, 2015).

Despite the value of CNs to healthcare delivery, a 2010 survey showed that 75% of U.S. CNs felt poorly prepared and inept to do their jobs (Assid, 2010), which often left them feeling “thrown” into their roles and unable to lead effectively (Burns et al., 2009; Normand et al., 2014; Sherman et al., 2011). This practice is an imprudent one because CNs are more capable of providing a higher quality of patient

care (Hill, 2010) and may have a more significant impact on the organization’s healthcare quality than any other healthcare team member (Normand et al., 2014). Despite the known relationship between competent CNs and quality outcomes, the CN role was once at risk of being eliminated from nursing practice. However, health care’s escalating complexity has led to a renewed interest in the role (Connelly, 2003), as well as the need to invest in formal leadership professional development (PDEV) activities to help improve quality of care (Burns et al., 2009; Normand et al., 2014).

High-quality patient care ultimately decreases adverse patient events in healthcare facilities, such as the approximately 400,000 preventable hospital-related deaths that occur annually in the United States (Cathro, 2016). A contributing factor to this healthcare failure could be a lack of fully investing in quality care (Kavanagh et al., 2017). One way healthcare facilities can improve quality care is by investing more in the personal development of CNs. However, a general lack of investment and knowledge still exists about this important role when compared to what is known about other nursing roles, such as nurse managers (Normand et al., 2014). This external and internal knowledge deficit may have influenced the canard that any nurse can assume the CN role, even without proper PDEV (Cathro, 2016).

Despite being part of the nation’s largest integrated healthcare system and being designated as a complex infrastructure facility (Chang et al., 2019; Hill, 2010), VA North Texas Health Care System (VANTHCS) did not always recognize the designated charge position as part of its nursing leadership structure. In the past, nurses were randomly assigned as CNs, some without sufficient PDEV, which may have contributed to inconsistently providing high-quality care (Hill, 2010). A desire to follow best nursing practices and to consistently offer optimal quality care led VANTHCS nurse executives to initiate a project that include designated CN roles on nursing units and to implement a revised CN PDEV activity.

The aim of this project was to evaluate the facility’s CN PDEV activity that was revised to improve the consistency of the high-quality care delivered to veterans. Project objectives were (a) to detect if the revised PDEV activity

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would empower participants with improved knowledge and understanding of their leadership role as well as help to improve their qualifications to function in the CN role and (b) to detect if the PDEV activity would positively impact job satisfaction on selected nursing units among nonparticipating nursing staff, including nursing assistants, licensed vocational nurses, and other registered nurses (RNs).

## METHODS

An interventional design was used to evaluate the revised and implemented evidence-based CN PDEV activity that applied Duffy's quality-caring model (QCM) as its foundation (see Figure 1). The model can be applied to develop nurse leaders by creating caring-embedded PDEV activity curriculums. Instructor role modeling and caring pedagogies can be used to design student-centered, meaningful education experiences that contribute to positive learning outcomes, such as making learners "feel cared for." This results in professional growth that enables the learner to feel safe enough to lead boldly, replicate caring relationships, and deliver quality patient care (Duffy, 2015).

According to Duffy, the nursing model for caring-based curriculums and caring relationship for nursing leadership development can improve interprofessional practice and benefit nurses by meeting and maintaining professional standards and enjoying meaningful and rewarding work. Using QCM as a foundation for collaborations between expert and novice nurse leaders can make them feel "cared for" and

allow them to develop and prosper (Duffy, 2015; Duffy & Hoskins, 2003; Normand et al., 2014).

The PDEV activity's setting was the nation's second largest VA healthcare system, located in North Texas. The facility has 853 beds and employs over 4,700 employees (U.S. Department of Veterans Affairs, 2018). The target population was nurses selected by their managers to fill the new designated CN roles. A pretest, a posttest, and a curriculum evaluation were the three instruments utilized to assess the PDEV activity's value and efficacy. In all, 63 nurses attended the PDEV activity; however, 61 (97%) signed consents and completed curriculum evaluations ( $N = 61$ ). The 61 participants were demographically diverse. Forty nursing staff members (RNs, licensed vocational nurses, and nursing assistants) from selected nursing units completed staff satisfaction surveys before CN PDEV activity. An additional 40 nursing staff members from the same nursing units completed staff satisfaction surveys after the CN PDEV activity (a total of 80). This survey was administered to help determine if the learners would apply the knowledge learned in their work settings and possibly improve staff satisfaction. Project participants completed consent forms before completing all instruments. An institutional review board was approved by VANTHCS and The University of Alabama in Huntsville.

The instructors for the CN PDEV activity were 24 VANTHCS employees that included a psychologist, a respiratory therapist, and 22 RNs. Twenty-nine percent of the instructors had bachelor's degrees, 50% had master's degrees, and 21% had obtained doctoral degrees. Twenty



**FIGURE 1.** Nursing model for caring-based leadership development curriculums. A depiction of how caring relationships can be the foundation for caring-based curriculums that revolve around relationship-centered professional encounters between expert leaders and novice nurse leaders. Caring factors, such as thoughtful reassurance, foster caring relationships and can make novice nurses "feel cared for." When novice nurse leaders "feel cared for" this can result in outcomes such as personal growth, self-confidence, healthier behaviors, and improved job and staff satisfaction. This figure is available in color online ([www.jnpdonline.com](http://www.jnpdonline.com)).

percent of them served in leadership roles, 50% served in RN consultant roles, and 29% were direct patient care RN staff.

Suggested topics for CN PDEV activity include professionalism, clinical and business skills, communication, conflict management, critical thinking, customer satisfaction, delegation, organization policies, human relations, leadership, patient flow, patient safety, quality requirements, shared governance, team building, stress management, and so forth (Delamater & Hall, 2018; Homer & Ryan, 2013; Normand et al., 2014; Spiva et al., 2020; Teran & Webb, 2016; Thomas, 2012). All evidence-based suggestions listed above were incorporated into the VANTHCS's CN PDEV activity.

### Interventions

A revised 3-day CN PDEV activity was the intervention for this project. Nine RNs applied evidence-based practice to develop and implement the project by revising or developing the CN policy, competency assessment, functional statements, and PDEV activity agenda. Subject matter experts were then solicited to develop the PDEV activity's curriculum. Revised PDEV activity modules and objectives were assessed by the facility's designated learning officer, and continuing nursing education contact hours were obtained. Four PDEV activity sessions were held in November and December 2019.

Three instruments were used to evaluate the revised CN PDEV activity. The first tool, a pretest and a posttest with 17 multiple-choice questions and 1 true/false question and a maximum score of 100%, was administered to nurses before and after attending the 3-day PDEV activity. The project

coordinator developed test questions from the PDEV activity modules. To determine if the participants would absorb the information from the presentations without the test answers being overly emphasized, the instructors were not informed of the specific information used for test questions. Multiple-choice questions had four possible response options. Three facilitators collected all tests. The project coordinator secured, graded, and analyzed all test scores for significant differences between the knowledge level of the participants, as evidenced by pretest and posttest scores (see Table 1).

The second instrument, a curriculum evaluation, was used to assess the CN PDEV activity. The CN PDEV Activity Evaluation is a validated seven-statement evaluation of the learning experiences of the nurses who attended the activity that has been used for several previous versions of the facility's CN PDEV activities. The response choices for the questions on the Likert scale were *strongly disagree*, *disagree*, *neutral*, *agree*, and *strongly agree* (see Table 2).

The third instrument was the Tantau Provider and Staff Satisfaction Survey that was completed by two sets of 40 employees, for a total sample size of 80. This seven-question survey used a scale of 1–10 (10 being the highest rating), with room for comments at the end of the survey. Tantau & Associates granted permission to use this instrument, which was downloaded from the Institute for Healthcare Improvement's website.

### Analysis

A total of 63 nurses attended the CN PDEV activity; however, two of the attendees did not complete 100% of the PDEV activity or did not sign a consent form, or both. An

**TABLE 1** Pretest and Posttest *t*-Test Results

Paired Sample Statistics								
		Mean	N	SD	SEM			
Pair 1	Posttests	64.9836	61	12.74950	1.63241			
	Pretests	58.0328	61	12.44718	1.59370			
Paired Samples Statistics								
		N		Correlation	Sig.			
Pair 1	Posttests and pretests	61		.530	.000			
Paired Differences Samples Test								
		Mean	SEM	95% CI of the difference		t	df	Sig. (2-tailed)
Pair 1	Posttests/pretests	6.95082	1.56419	Lower	Upper	4.444	60	.000
				3.82198	10.07966			

Note. This table represents the *t* test of the means of the pre- and posttest interventions.

**TABLE 2** Charge Nurse Curriculum Evaluation Results

Statement	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
1. I learned new knowledge that will be helpful in improving caring unit relationships.	0.84	0.16	0.00	0.00	0.00
2. I will be able to apply the knowledge and skills learned to help improve the unit's working environment.	0.84	0.16	0.00	0.00	0.00
3. This activity's scope was appropriate to my learning needs and will help me to improve my job performance.	0.84	0.16	0.00	0.00	0.00
4. The content of this educational activity was presented in a fair and unbiased manner.	0.84	0.16	0.00	0.00	0.00
5. The number of hours for this activity was adequate; not too short or not too long.	0.70	0.26	0.00	0.02	0.00
6. I did not experienced hardships attending this educational activity.	0.67	0.30	0.02	0.02	0.00
7. Overall, I was satisfied with this educational activity.	0.77	0.23	0.00	0.00	0.00

Note: This table summarizes the results of the post-charge nurse training curriculum evaluations completed by participants. This curriculum evaluation was utilized to assess past facility trainings.

additional 15 nursing unit staff members completed staff satisfaction surveys but declined to sign a consent or did not respond to every question. Data from these employees were not included in this project. Pre- and post-staff satisfaction survey results were evaluated by calculating the mean and standard deviation of the test scores. A paired *t* test of the two samples was analyzed to determine if there was a significant difference between the two data sets. Data collected from the staff satisfaction surveys in October of 2019 and March of 2020 were analyzed for significant differences by comparing the medians of each of the questions on the surveys. The medians and standard deviation of the responses to each of the questions on the pre- and post-staff satisfaction surveys were compared.

The data collected from the curriculum evaluations were analyzed to determine the benefits and efficacy of the PDEV activity. The distribution and percentages of responses related to how the participants rated their experiences were calculated.

## RESULTS

### PDEV Activity Pretest and Posttests

The pretest and posttest results were as follows: pretest mean = 58.03, *SD* = 1.2; posttest mean = 64.98, *SD* = 1.04. A paired *t* test showed a correlation between the two sets of tests scores, *r* = .530, *p* < .001 (see Table 1).

### PDEV Activity Curriculum Evaluation

The overall results of the CN curriculum evaluations were as follows: For novelty, appropriateness, and objectivity

of the knowledge taught at the PDEV activity for improving nursing unit environments and caring relationships, 84% of the respondents *strongly agreed* with the statements, and the remaining 16% of respondents *agreed*. In addition, 96% of the nurses agreed that the hours allotted for the PDEV activity were proper, and 97% indicated that they did not face difficulties attending the PDEV activity. Finally, 100% of attendees indicated a level of satisfaction with the PDEV activity (see Table 2).

### Staff Satisfaction Survey

Staff satisfaction survey results on selected nursing units failed to show significant statistical improvements in staff satisfaction 3 months after the CN PDEV activity. The *p* values for all staff satisfaction survey items were greater than .05.

## DISCUSSION

The substantial impact that CNs can have on quality outcomes should inspire healthcare organizations to promote them to leadership positions in a caring manner, instead of throwing them in complex roles without providing them with a robust knowledge foundation to be effectual front-line managers (Delamater & Hall, 2018). With higher acuity patients and shorter lengths of stay, investing in developing CNs can contribute to high-quality patient care with improved clinical outcomes and staff and patient satisfaction (Burns et al., 2009; Flynn et al., 2010). Neglecting to invest in CN leadership development may put healthcare organizations at risk for underachieving in a highly competitive healthcare environment (Normand et al., 2014).

To generate a rapid return on investment in terms of meeting quality healthcare metrics, the literature suggested healthcare organizations invest in comprehensive and interactive PDEV activity prior to placing nurses in the CN role (Homer & Ryan, 2013). To be considered formal, CN PDEV activity should include (a) a specific curriculum that establishes the learning needs of students, (b) a group of selected instructors, and (c) evaluated and approved learning goals (Hager, 2012). The curriculum should focus on existing issues instead of PDEV activity that the organization has already corrected (Burns et al., 2009).

Utilizing Duffy's QCM to design the CN curriculum enabled participants to better understand how to integrate caring relationships into the delivery of quality care. Duffy's QCM can be applied to professionally developing nurse leaders by (a) creating caring-embedded curriculums and (b) using instructor role modeling and caring pedagogies (caring knowledge, attitudes, skills, and values) to design student-centered, meaningful education experiences that contribute to positive learning outcomes (making learners "feel cared for"; see Figure 1). This "cared for" feeling will result in professional growth and development that helps the learner feel safe enough to lead boldly, replicate caring relationships, and deliver quality patient care. The learners at VANTHCS also gained more knowledge of facility policies, shared governance, process improvement, conflict management, effective communication, critical thinking, and so forth. Improved posttests scores and positive evaluations of the revised curriculum demonstrate that the program can be a beneficial and sustainable investment. On the other hand, the lack of improvement in staff satisfaction surveys on nursing units cannot be solely related to the CN PDEV activity intervention. Staff satisfaction is dependent on multiple factors, such as staffing ratios, relationships with coworkers and managers, work-life balance, psychological safety, and so forth.

A true representation of staff satisfaction on some nursing units may not have been established because of some staff members declining to sign consent forms because of a perception of "retaliation." The inability to use the same 40 staff members to complete the pre- and post-staff satisfaction surveys because of scheduling conflicts may also have had a negative impact on the results. The 3-month interval between the pre- and post-staff satisfaction surveys may have also negatively impacted the outcome of the staff satisfaction survey results. Perhaps allowing more time to lapse between the pre- and postsurveys (6–9 months) would have shown an improvement in staff satisfaction. Although the data from the staff satisfaction survey did not change and the pre- and posttest score differences were not overwhelmingly compelling, the CN PDEV activity curriculum change was still value-added. Any activity or action carried out that enhances the benefit of a service to a customer is value-added. The above average results of the

CN PDEV Activity Evaluation completed by the CNs (internal customers) clearly showed that they benefited from the CN PDEV activity. Lastly, the lack of significant findings for staff satisfaction may be related to the lack of questions on the Tantau Provider and Staff Satisfaction Survey that specifically target CNs and their impact on the staff. Only three of the questions on the seven-question survey are related to CNs and the CN PDEV activity.

The CN PDEV Activity Evaluation provided room for the CNs who attended the PDEV activity to make anecdotal comments about the activity by asking the question: "What about this educational activity was most helpful to you?" A sample of the comments made by the CNs demonstrated that the activity empowered them with more knowledge about their CN role. Some of the comments were as follows:

- "There is so much I enjoyed. Leading difficult people, ethics, promoting civility, delegating care, team building, and case management roles, just to start. Thank you!"
- "All speakers were knowledgeable, and the training was very informative."
- "To gain more knowledge about my role as a CN."
- "Learning more about how to deal with difficult people in ways that will benefit both parties."
- "Very interactive and all the information was very useful and applicable."
- "A lot of new information."
- "All was very helpful."

## CONCLUSION

Health care has become more complex than ever before, with expectations of excellence and quality health care as top priorities. However, there is still a lack of current literature that is specific to the topic of CN PDEV. Even so, exceptional health care requires all team members, especially CNs, to put forth their best efforts. Their actions directly impact patient and staff satisfaction, patient safety, quality outcomes, and organizational finances. When healthcare organizations have failed to legitimize the CN position with definitive job descriptions, competencies, and formal PDEV activities, CNs feel "uncared for" and tossed into daily battles without the foundation to manage the complicated situations they encounter daily. (Burns et al., 2009; Clark & Yoder-Wise, 2015). Caring and highly reliable healthcare organizations must invest in comprehensive and structured PDEV activities that adequately prepare CNs for their professional growth and development.

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