



Nursing Professional Development Organizational Value Demonstration Project

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“How many nursing professional development practitioners should my organization have?”

BACKGROUND

Perhaps the most common question nursing professional development (NPD) practitioners ask each other and their national association is, “How many NPD practitioners should my organization have?” The Association for Nursing Professional Development (ANPD) has a longstanding interest in answering this question. To date, no research has been found that quantifies the number of NPD staff an organization needs or identifies the correlations among NPD structures, processes, and outcomes with organizational outcomes. Given the complexity of the current healthcare environment and the Institute of Medicine (IOM) *Future of Nursing* (2010) goals for 2020, an understanding of the impact of the role of NPD practitioners on organizational outcomes is critical.

The current healthcare environment is changing rapidly due to healthcare reform that focuses on cost containment, value-based purchasing, and a transition of healthcare to less acute settings. Moreover, millions of Americans are now eligible for health insurance coverage through the Patient Protection and Affordable Care Act. NPD practitioners are challenged to meet the continuing education needs of nurses in an environment of organizational mergers, increased patient acuity in the inpatient setting, workforce shortages, rapid technological advances, and increasing consumer expectations for quality. In addition, as healthcare organizations seek to control costs, education departments are often subject to reduction in forces. As a result, education departments are tasked with demonstrating a return on investment (ROI) for their activities.

Concurrent with the constraints attributed to healthcare reform, NPD practitioners are engaged in many activities to meet the

recommendations of the *Future of Nursing Report* (IOM, 2010). For example, NPD practitioners often lead the initiative to increase the number of baccalaureate prepared nurses within an organization in order to meet the 80% benchmark by 2020 recommended by the IOM. In its halftime report assessing progress toward the *Future of Nursing* goals, the National Academies of Medicine (2015), formerly the IOM, reported the number of bachelor of science in nursing (BSN) prepared nurses at 51% with market forces driving the focus on the BSN. Another IOM initiative, doubling the number of nurses with doctorates by 2020, has demonstrated a 10-fold increase in the number of nurses enrolled in Doctor of Nursing Practice (DNP) programs since 2010 but little growth in Doctor of Philosophy (PhD) programs (NAM, 2015). Lack of growth in PhD programs is a concern for filling faculty positions. Another area of nursing professional development department responsibility is the IOM recommendation to develop transition to practice residencies for newly licensed nurses. Growth in residency programs has been slow, primarily due to lack of funding. Finally, NPD departments focus on the lifelong learning of nurses and preparing them to lead change. The halftime report suggests that this goal should focus on interprofessional continuing education (NAM, 2015). NPD practitioners are an integral component of meeting the many IOM recommendations, and the halftime report clearly indicates that much remains to be done.

PURPOSE

In view of the changes in the healthcare environment and the recommendations of the IOM, the ANPD Board of Directors commissioned a study to examine variables related to facility size and structure, NPD practitioner characteristics and time in

service, and organizational outcomes. The specific aims for this research were to:

1. Explore correlations among professional development structures and acute care hospital organizational, nursing, and patient outcome variables.
2. Identify correlations among acute care hospital organizational, nursing, and patient outcome variables.

This paper focuses on the first research aim. Findings related to the second aim are forthcoming.

Method

DESIGN, SAMPLE, AND SETTING

A non-experimental, descriptive, cross-sectional, web-based survey design was used to examine structure, process, and outcome variables associated with NPD practitioners and their work environments. The sampling frame for this study was the approximately 5000 acute care hospitals located in the United States. A convenience sample of 3400 ANPD members were invited to participate in the online questionnaire. Snowball sampling was used to further increase participation, and affiliates (chapters) of ANPD were asked to promote study participation. Snowball sampling is a technique whereby the researcher collects data on members of the targeted population the researcher can locate and then requests those individuals to solicit others to participate. NPD members were asked to forward the recruitment message to colleagues. In addition, social media outlets including LinkedIn, Facebook, and Twitter were used, along with the distribution of information at the 2014 National Magnet® Conference and through the ANPD newsletter, to recruit participants.

PROCEDURE

Pursuant to institutional review board (IRB) review, recruitment messages were sent to ANPD members, notices were placed on social media and in the ANPD newsletter, and survey information was distributed at ANPD affiliate meetings and the 2014 National Magnet Conference. Study data were collected and managed using Research Electronic Data Capture (REDCap) tools hosted at Duke University. REDCap is a secure, web-based application designed to support data capture for research studies (Harris et al., 2009). The first item of the online survey was acknowledgement of organizational consent to participate. Since the unit of analysis was the hospital, participants were asked to submit only one survey per hospital to avoid duplication of responses. The survey remained open for a three-month period from July to October 2014. Due to the length of the survey and the type of information requested, a pdf version of the survey was provided to facilitate collection of organizational metrics prior to data entry into the survey.

INSTRUMENT

Currently no measurement tool exists for the metrics identified for this study. Pursuant to a literature review and input from NPD experts including the ANPD Board of Directors and members of the ANPD Research Committee, the researchers developed a 70-item online survey. This survey was designed to collect data on the following variables: facility descriptors, educator descriptors, departmental responsibilities and percentage of time allocated to each, performance data from the Medicare Hospital Compare website (<https://www.medicare.gov/hospitalcompare/search.html>), and other organizational metrics. Specific outcome data requested included patient satisfaction with communication, pain control, discharge information, and medication explanation; influenza vaccine rates; rates of central line associated blood stream infections (CLABSI);

and catheter-associated urinary tract infections (CAUTI). Organizational metrics included percent of nurses certified and newly licensed nurse retention rate.

A new ANPD Board of Directors confirmed the content validity of the survey. Feedback indicated that due to the length of the survey and the need for study participants to access requested data, a pdf of the survey should be provided to participants so that they could easily investigate organizational data. As a result of this feedback, participants were able to download a copy of the survey to complete prior to entering their data into the online survey instrument.

The following operational definitions were included in the survey to differentiate between nursing and non-nursing educational functions:

- NPD = Nursing professional development practitioner: a nurse assigned primary educator responsibilities
- Educator = Non-nurse educator or assigned non-nursing related educator responsibilities

DATA ANALYSIS

Data analysis included descriptive statistics and correlations among demographic and professional characteristics with outcome variables.

To evaluate correlations with outcome variables, the median for each outcome variable was determined. Then, the rates of NPD full-time equivalents (FTEs) per registered nurse (RN), measured as individuals, and NPD full-time equivalent per hospital bed were compared to outcomes above the median and below the median using nonparametric (Wilcoxon) tests for significance. For this descriptive study, significance level was set at 0.10.

Results

SAMPLE DESCRIPTION

A total of 250 surveys were submitted. Of these surveys, 14 were incomplete, 15 were duplicates, 16 were from children's hospitals, and 3 were from long-term care facilities. Children's hospitals' data were reserved for separate analysis, and long-term care facilities were excluded due to the small number. Usable surveys from 202 acute care hospitals from 43 states were included in the final sample. As demonstrated in Figures 1, 2, and 3, most were non-profit (93.5%) community hospitals (63%) located in urban (40.7%) or suburban settings (36.7%). Just over half (53%) of the hospitals had achieved American Nurses Credentialing Center (ANCC) Magnet Recognition Program® designation or were on the journey toward designation.

FIGURE 1
Hospital Type

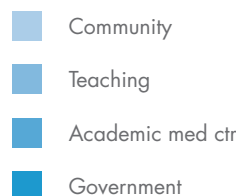


FIGURE 2
Hospital Profit Status

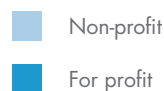
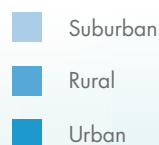


FIGURE 3
Hospital Setting



Although responses were requested for individual hospitals, a few systems responded, which accounts for the large number of beds and employees. The sizes of hospitals that participated varied greatly as shown in Table 1. Bed counts ranged from 18 to 2,144 with 68 to 29,000 employees. The mean number of RNs per hospital was 1,120 with a range of 26 to 5,421. While some organizations did not budget education hours for their RNs, others budgeted up to 182 hours of education per RN each year. The average number of newly licensed nurses hired each year per hospital was 64 with a mean of 112 experienced nurses hired per year. Eighty-six percent of the organizations offered continuing nursing education (CNE) as either a state or nationally accredited provider and 68% offered continuing education for other disciplines.

NPD PRACTITIONERS' CHARACTERISTICS

As shown in Table 2, the majority (59%) of NPD practitioners in the participating organizations held a Master's degree. One-half (50%) were certified in their clinical practice specialty with 16% certified in the NPD specialty. Nearly one-third (32%) were not certified. Just over one-third (34%) had between 1 – 5 years experience in NPD while 24% had 6 – 10 years experience in NPD.

NPD DEPARTMENT WORKLOAD ALLOCATION

Organizations were asked to specify the percentage of time allocated to specific NPD activities. While instructions specified total workload allocation should reflect 100% of departmental time, some participants entered totals exceeding 100%. As seen in Table 3, orientation accounted for one-third of NPD department workload while mandatory education and clinical education each accounted for 25%. Both life support programs and residency programs were credited with 22% of departmental workload.

TABLE 1
Hospital Characteristics

HOSPITAL CHARACTERISTICS	MEAN	RANGE
Licensed beds	460	18-2144
# Employees	3790	68-29,000
# RNs	1120	26-5421
Annual new hires		
# Newly licensed nurses	64	0-422
# Experienced RNs	112	0-614

TABLE 2
NPD Practitioner Characteristics

NPD PRACTITIONER CHARACTERISTICS	PERCENT
Education level	
Doctorate	3%
Master's	59%
Bachelor's	34%
Associate	4%
Certification	
NPD	16%
Clinical specialty	50%
Nurse Educator	2%
None	32%
Years experience in NPD specialty	
<1	14%
1 – 5 years	34%
6 – 10 years	24%
11 – 15 years	14%
16 – 20 years	7%
> 20 years	7%

NPD PRACTITIONER RATIOS

Organizations were classified according to bed size as small, medium, large, and mega for ease of description, as indicated in Table 4. Mean bed size, mean numbers of individual RNs, and mean numbers of NPD full-time equivalents (FTEs) were calculated. The mean number of RNs per NPD FTE ranged from 88 – 134 while the mean hospital beds per NPD FTE ranged from 38 – 50.

NPD PRACTITIONER RATE CORRELATIONS WITH ORGANIZATIONAL OUTCOMES

Organizations with a higher rate of NPD FTEs per bed had a statistically significant ($p = 0.04$) higher patient satisfaction with nurses’ communication on their HCAHPS scores. In addition, HCAHPS scores for “patients who reported that YES, they were given information about what to do during their recovery at home” (Centers for Medicare and Medicaid Services, n.d.) was also higher ($p = 0.07$) for organizations with a higher rate of NPD FTEs per bed. No other statistically significant correlations were found between NPD rates per bed or NPD rates per RNs and patient satisfaction with pain control or medication explanation, administration of the influenza vaccine, catheter associated urinary track infections (CAUTI), or central line associated blood stream infections (CLABSI). All correlations are listed in Tables 5 and 6.

Discussion

IMPLICATIONS FOR PRACTICE

Findings from this study indicate that the number of NPD practitioners in an acute care hospital may influence patient outcomes, particularly as related to patient satisfaction with nursing communication and discharge information. While these findings are simply descriptive, they represent a seminal evaluation of the organizational value of NPD and form a foundation for further research.

TABLE 3
NPD Department Workload Distribution

ACTIVITY	% OF DEPARTMENT WORKLOAD
Orientation	33%
Clinical education	25%
Mandatories	25%
Life Support	22%
Residency	22%
Externships	20%
Preceptor development	18%
Equipment	18%
Documentation	15%

Note. Total does not equal 100%.

TABLE 4
NPD FTEs per Bed and RN

BED SIZE	N	MEAN BEDS	MEAN RNs	MEAN NPD FTEs	RNs PER NPD FTE	BEDS PER NPD FTE
0 – 200 (Small)	56	112	279	2.7	103.3	41.5
201 – 400 (Medium)	61	298	687	7.8	88.1	38.2
401 – 1000 (Large)	63	638	1707	12.7	134.4	50.2
1001 – 2144 (Mega)	20	1373	2864	28	102.3	49.0

In addition to describing NPD practitioner rates based on numbers of RNs and bed size, this study provides an initial nationwide description of NPD practitioners. Findings indicate that 62% are Master's prepared or higher and 50% maintain certification in a patient-care related specialty. On the other hand, only 16% are certified in NPD and nearly one-third lack any type of certification. These data suggest that NPD practitioners tend to value "clinical" certification and may not recognize NPD as its own specialty that is formally acknowledged by the American Nurses Association and has its own scope and standards of practice (Harper & Maloney, 2016). Clinical knowledge, demonstrated by clinical certification, is not sufficient to practice NPD. If NPD is going to achieve IOM recommendations and impact patient satisfaction and clinical outcomes, its practitioners need to understand their roles and responsibilities and demonstrate competence in the specialty. Certification in NPD demonstrates this competence.

Another groundbreaking finding of this research is the workload distribution of NPD departments. Orientation activities consume the highest percentage of NPD department time. While orientation of new employees is imperative, its effectiveness must be evaluated. In a review of 50 articles that evaluated orientation teaching strategies and outcomes, Kennedy, Nichols, Halamek, and Arafeh (2012) found little change in nursing orientation has occurred since 1940. Teaching strategies are overwhelmingly instructor-centered with little consideration for past experience. Clearly more efficient and effective orientation methods are needed to engage participants (Green, 2015), optimize patient outcomes, and allow NPD practitioners to focus on additional role responsibilities.

IMPLICATIONS FOR RESEARCH

Further research is needed to analyze the correlations among NPD structures and processes, including certification in the specialty, with patient and organizational outcomes. Clarity of operational definitions is imperative to facilitate comparison (IOM,

2015). As the evidence base is strengthened, NPD staffing metrics and models may be developed that align with the generalist and specialist levels of practice identified in the *Nursing Professional Development: Scope and Standards of Practice* (Harper & Maloney, 2016). The NPD generalist is prepared at the baccalaureate level with or without certification in NPD, or at the graduate level without certification. The NPD specialist has both a graduate degree and certification in NPD. Investigation of core competencies for each level is needed along with analysis of optimal workload distribution. In addition, analysis of NPD staffing in settings other than acute-care hospitals is warranted, particularly as healthcare reform supports movement of patient care from inpatient to community-based settings.

LIMITATIONS

Several limitations impact the generalizability of the findings of this study:

1. The NPD FTE rates per RN and per bed are descriptive data, not prescriptive. No conclusions can be drawn about NPD staffing requirements based on these data.
2. Patient outcomes are influenced by a number of variables, not just NPD influence.
3. Variation in measurement of key metrics, such as newly licensed nurse retention rates, makes comparison and generalization difficult.
4. Variation in terminology and titles may impact reporting.

CONCLUSION

The current healthcare environment's focus on pay for performance requires that NPD practitioners demonstrate a measureable impact on outcomes to remain viable (Dickerson & Schmidt, 2014; Holtschneider & Park, 2015; Krugman, 2015; McPhee, 2016). However, little literature is found that exemplifies NPD's contribution to organizational outcomes. According to Johnson (2013), NPD practitioners must look beyond delivering "a great program"

(p. 91) to positively impacting targeted organizational outcomes. These outcomes focus on metrics that impact the organization's success. Johnson posits, "Professional development is only successful when it can help the organization achieve its mission and enhance the value of staff to provide the best possible service" (p. 90). ANPD is poised to support NPD practitioners through the continued study of outcomes and demonstration of contributions of the NPD specialty to organizational success.

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TABLE 5
Correlations Among NPD FTE/RN Rates
and Organizational Outcomes

OUTCOME VARIABLE		N	MEAN	STD. DEVIATION
Patient satisfaction:				
Communication	>median	83	0.011	0.009
	<median	95	0.011	0.020
Pain control	>median	74	0.010	0.007
	<median	104	0.012	0.020
Discharge information	>median	86	0.012	0.021
	<median	92	0.011	0.010
Medication explanation	>median	89	0.013	0.021
	<median	89	0.010	0.010
Influenza vaccine	>median	74	0.013	0.023
	<median	102	0.011	0.014
CLABSI	>median	88	0.012	0.022
	<median	80	0.010	0.007
CAUTI	>median	83	0.010	0.010
	<median	82	0.013	0.022
% Certified Nurses	>median	79	0.012	0.016
	<median	79	0.011	0.011
Newly Licensed Nurse Retention	>median	70	0.012	0.017
	<median	79	0.011	0.011

Note. No statistical significance found.

TABLE 6
Correlations Among NPD FTE/Bed Rates
and Organizational Outcomes

OUTCOME VARIABLE		N	MEAN	STD. DEVIATION
Patient satisfaction:				
Communication ^a	>median	86	0.027	0.020
	<median	99	0.021	0.015
Pain control	>median	77	0.026	0.020
	<median	108	0.022	0.016
Discharge information ^b	>median	90	0.026	0.019
	<median	95	0.021	0.016
Medication explanation	>median	92	0.025	0.020
	<median	93	0.023	0.015
Influenza vaccine	>median	75	0.022	0.019
	<median	106	0.025	0.016
CLABSI	>median	89	0.023	0.015
	<median	84	0.023	0.019
CAUTI	>median	85	0.022	0.017
	<median	85	0.025	0.017
% Certified Nurses	>median	81	0.026	0.020
	<median	80	0.023	0.016
Newly Licensed Nurse Retention	>median	70	0.027	0.020
	<median	80	0.023	0.018

^aStatistically significant ($p = 0.04$).

^bStatistically significant ($p = 0.07$).