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Impact of Teaching Demands on Doctoral Program Nursing Faculty Members' Scholarship and Productivity And Work-Life Balance

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Context of Project

- **Project was 1 of 5 in 3rd cycle/cohort of RWJF's Evaluating Innovation in Nursing (EIN) Education program**
- **EIN/RWJF focused on research to address nursing shortage and nursing faculty shortage identified in IOM report.**
- **All five 3rd cycle / cohort projects addressed doctoral nursing education and the production of nurse faculty**

Background

Calls for increased number of BSN graduates and nurses with doctorates



Calls for nurse researchers to contribute to the scientific base of nursing and to the health of the nation.



Proliferation of doctoral programs with increased workloads of all faculty including doctoral program faculty

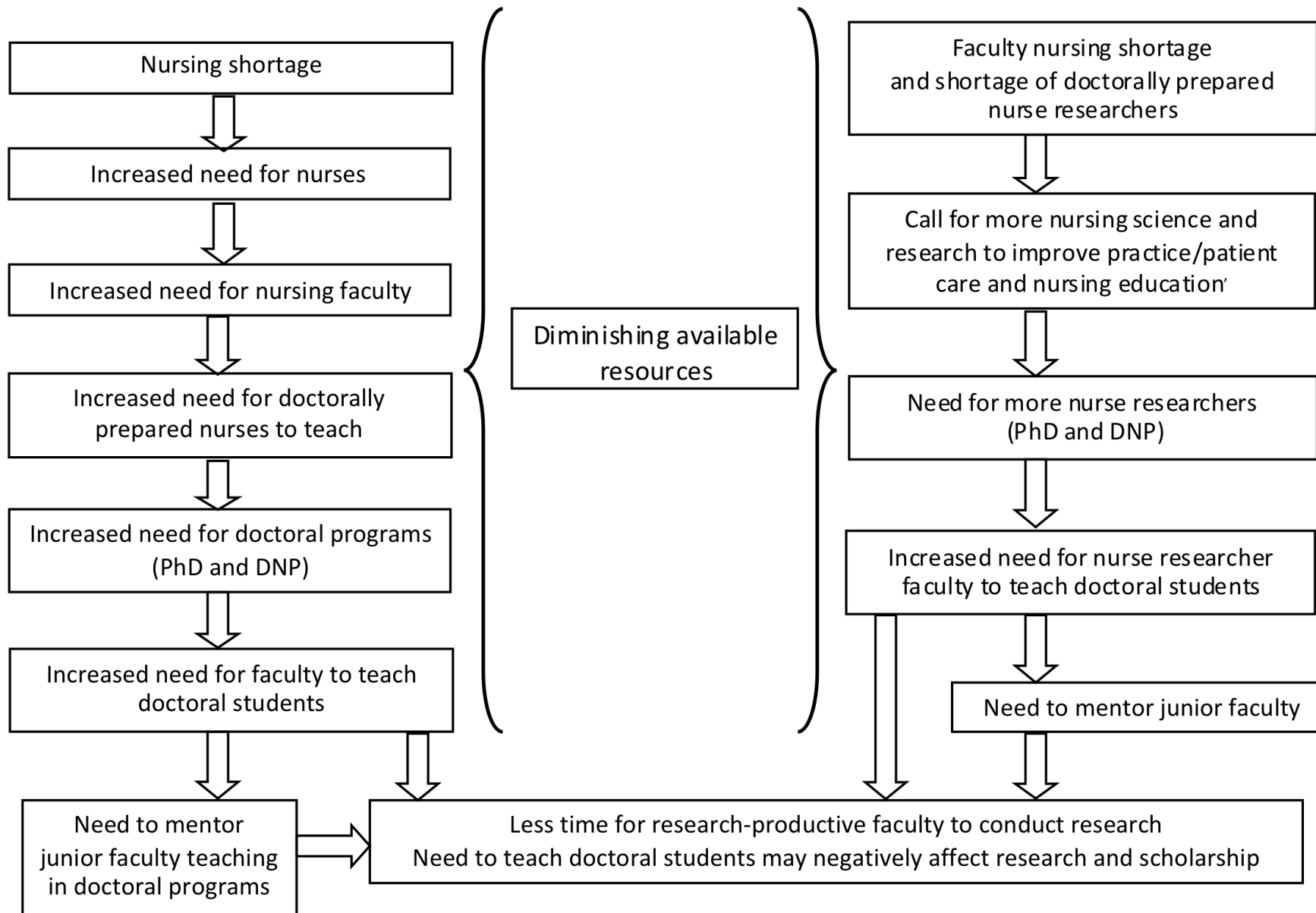


Competing demands on doctoral program faculty and less time for research and scholarship

Background...

Increased competing demands on doctoral program nursing faculty:

- **Often the most seasoned faculty in schools of nursing** (have significant teaching, research, professional and institutional expectations)
- **Faced with heavier work loads with research, teaching and mentoring, and service responsibilities**
- **Expected to prepare the next generation of faculty and researchers to address the shortage of nurses and faculty**
- **Face diminishing numbers with approaching retirements of large number of faculty members**



Framework for the Study (*Journal of Professional Nursing*, 2015)

Overall Purpose of Study

- **To describe the profile of doctoral program faculty**
- **To examine the effect of teaching and mentoring doctoral students on faculty members' research and scholarship**
- **To examine the work-life balance of doctoral nursing program faculty**

Profile of US Nursing Faculty in Research- and Practice-Focused Doctoral Education

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Specific Purpose of This Study

This study has been published (Smeltzer et al., 2015).

To create a current profile of nursing faculty teaching in PhD and DNP programs in the United States.

The landscape has shifted rapidly.

AACN has documented trends regarding number of research doctorate and DNP programs, enrollments, and graduates, but prior studies of doctoral nursing faculty were conducted several years ago and/or did not examine faculty roles

(Dreher et al., 2012; National Survey of Nurse Faculty, 2011).

Recent Growth in PhD and DNP Programs

	Numbers at Baseline Years	Numbers in 2013 / 2014	% Average Annual Increase	% Total Increase
PhD Programs	103 (2006)	133 (2014)	3.64%	29.13%
DNP Programs	20 (2006)	225 (2014)	128.12%	1,025%
PhD Students Enrolled	3,439 (2004)	5,124 (2013)	5.44%	49.00%
DNP Students Enrolled	70 (2002)	14,699 (2013)	1,899.9%	20,898.6%
PhD Graduates	412 (2002)	626 (2013)	4.72%	51.94%
DNP Graduates	0 (2002)	2,443 (2013)	∞	∞

On-line Survey

After IRB approval, PhD and DNP programs were identified from AACN's list to generate a random national sample of schools with proportional stratification by type of program and geographic distribution.

Full-time PhD and DNP program faculty who taught in either PhD or DNP programs or both ≥ 2 years were identified and verified by doctoral program directors and invited to complete the online survey. They were offered Amazon gift certificates at completion.

The Tailored Design Method for Internet Surveys (Dillman et al., 2009) guided procedures.

The on-line survey (based on results of two focus groups and an extensive review of literature) included 73 items:

- **Demographics**
- **Commitments of time to facets of faculty role**
- **Components of doctoral faculty role**
- **Sections of survey related to purpose of the overall study**

The average item-level CVI was used to calculate the overall scale CVI of .86.

The survey was piloted with 10 nursing faculty, resulting in no changes to the survey.

Procedures:

- Administration of questionnaire via SurveyMonkey
- Up to 4 reminders sent
- Data downloaded into IBM SPSS Statistics version 22

Analysis:

- Descriptive statistics
- χ^2
- ANOVA

Sample

1,197 doctoral program faculty invited to participate
554 (46.3%) completed the entire survey (representing
100 PhD programs, and 124 DNP programs)

Type of doctoral program teaching

147 (26.8%) teach in PhD program
210 (38.3%) teach in DNP program
191 (34.8%) teach in both PhD and DNP programs

Age

$\leq 40 = 7.4\%$
41-50 = 14.4%
51-60 = 44.4%
 $> 60 = 33.8\%$

Sample - Continued

Educational Preparation

PhD = 77.8%

DNP = 11.2%

EdD = 3.2%

Other or multiple = 7.8%

Rank

Instructor = 1.1%

Assistant Professor = 36.3%

Associate Professor = 33.8%

Full Professor = 28.9%

Sample - Continued

Tenure Status

Tenured = 49.1%

Tenure track = 31.6%

Non-tenure/clinical track = 19.3%

Comparing DNP and Research Doctorate Program (PhD) Faculty

Research Doctorate Program Faculty:

- **More likely to be tenured**
- **More likely to serve on dissertation / project committees**
- **More likely to provide academic counseling**
- **More likely to mentor students in research**
- **More likely to informally mentor**
- **More likely to supervise post-doctoral fellows**
- **Spend more time on scholarship**
- **More likely did research prior to current position**
- **More likely to write grants**
- **More likely did peer review of articles**
- **More likely held national / international positions**

Expectations of Faculty Teaching in Research Doctorate Programs

Research Doctorate Faculty were more likely to

- **Conduct research**
- **Write research-based publications**
- **Write grants**
- **Present research at conferences**
- **Obtain external funding for tenure / to maintain position**

Resources of Faculty Teaching in Research Doctorate Programs:

Research Doctorate Faculty were more likely to have access to:

- **RAs / TAs**
- **Start-up funds for research**
- **Support of an Office of Research**

Faculty Teaching in DNP Programs

- **More likely to hold DNP**
- **More likely to hold rank of Assistant Professor**
- **More likely to be on nonTT / clinical track**
- **More likely to have released time for clinical practice**
- **More likely to be expected to conduct EBP improvement projects**

Significant Differences Between Groups

Years of education

$(F(2, 545) = 8.483, p < .001)$, PhD > DNP

Years in current position

$(F(2, 545) = 7.415, p = .001)$, PhD > DNP

Hours per week spent teaching

$(F(2, 538) = 10.288, p < .001)$, DNP > PhD

Hours per week spent on scholarship

$(F(2, 522) = 36.313, p < .001)$, PhD > DNP

Discussion

Growth in DNP faculty is substantial compared to prior studies.

Research program faculty and those who teach in both programs are more similar than DNP program faculty.

A disparity exists in rank, tenure and access to resources that may become disruptive of schools of nursing and their parent institutions.

DNP faculty are more likely to be engaged in practice, and across studies they have reported stress related to this additional expectation.

Discussion - Continued

DNP faculty are newer in the role and less prepared for the demands of academia.

The profession needs to track outcome data on scholarly productivity as the proportion of DNP faculty increases, because of the need for scientific contributions to the delivery of safe, high-quality, cost-effective care.

Implications and Conclusions

With more DNP prepared faculty, schools need to strategize about corporate approaches to fulfilling their research mission.

Resources need to be reallocated to support DNP programs and their faculty.

Schools need to strategically plan whom to prepare, deploy, and support for research – it cannot be regarded as the individual faculty member's responsibility.

Continuous monitoring of this trend and its impact on doctoral education and nursing scholarship is essential.

Factors related to Research and Scholarly Productivity of Doctoral Nursing Program Faculty

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Analysis of Scholarship Productivity

- Respondents' time dedicated to teaching, research/scholarship and service commitments of doctoral faculty in the past two years were summarized using descriptive statistics, percentage distribution, means and standard deviations.
- Perceived effectiveness of existing institutional mechanisms to support scholarship was measured on a five-point Likert-type scale and responses were analyzed using means and percentages.
- Descriptive statistics were used to summarize respondents' participation in scholarship activities and their perceptions about institutional features and personal practices that support scholarship.

Analysis of Scholarship Productivity - Continued

- **The Productivity Index of Waller and Karni (2010) uses a weighted coding system that assigns a point value for each category of scholarly output; the sum of the points represents the total productivity score, which was used to calculate the scholarly productivity.**
- **A hierarchical regression analysis of predictors of scholarship productivity was performed.**

Major Findings of On-Line Survey Related to Scholarship

Teaching and service commitments of participants were high:

- 60.0% spent 21 hours or more/week on teaching-related activities
- 48.4% served on 4-6 school and/or university committees
- 33.8% were assigned to teach between 6-10 course sections/year

Research-related activities of participants were high

- 58.9% spent 6-20 hours/week conducting research or EBP improvement projects, writing research-based papers, giving presentations, writing grant proposals

Research and scholarship productivity was robust

Number of peer-reviewed publications in last 2 years:

- 0 = 15.7%; 1-5 = 57.9%; 6-10 = 17.3%; 11-15 = 4.7% \geq 16 = 4.3%

Institutional Features and Personal Practices that Support Research and Scholarship

Strategy	Mean	Standard Deviation
Engaging in scholarship makes me a better teacher.	4.45	.68
Personal gratification in experiencing students' success	4.44	.68
Setting limits and boundaries with professional activities	3.58	.81
Setting limits and boundaries with students	3.48	.83
Publishing with doctoral students	3.43	1.05
Participation in faculty learning communities	3.15	.95
Congruent match between doctoral students' projects and own scholarship and research agenda	3.20	1.12
Structure of the SON and university (practice)	2.95	.92
Administrative support	2.95	1.22
Structure of the SON and university (research)	2.75	1.24

Hierarchical Regression Analysis of Predictors of Research and Scholarship Productivity

Predictor Characteristic	b	SE b	BETA
Current faculty position	2.07	.454	.177***
Tenure status	-1.006	.396	-.101*
Average number of hours spent weekly on scholarship activities	1.754	.229	.296***
Time bought out for research-related activities	2.152	.293	.270***
Service on SON/university committees	1.569	.466	.116**
Structure of the SON/university that protects scholarship time	.385	.279	.049
Engaging in scholarship makes me a better teacher	1.449	.494	.103**
Congruent match between doctoral students' projects and own scholarship	.554	.300	.065

* $p < .05$; ** $p < .01$; *** $p < .001$

Major Findings: Research and Scholarship Productivity and Related Factors

Belief that engaging in scholarship made faculty better teachers and personal gratification from doctoral students' successes supported research productivity.

Hours per week spent on research was strongest predictor of faculty research productivity.

PhD program faculty were more likely to have previous research-related experience and to engage in grantsmanship and spend more time on scholarship than DNP program faculty.

Organizational supports for scholarship were seen as less available by DNP faculty than PhD faculty.

Reflection and Discussion on the Study's Findings

- **While start-up funding was strongest, respondents rated the mechanism of interdisciplinary collaboration on research projects to be a strong mechanism in supporting their scholarship.**
- **The strongest predictor of productivity was the average number of hours spent on research/scholarship-related activities, followed by time bought out from teaching and other responsibilities of the faculty role for research.**

Work-life Balance of Doctoral Nursing Program Faculty

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Background

Work-life balance has been identified as a potentially modifiable factor, among many non-modifiable factors, that has an impact on job satisfaction and the faculty nursing shortage.

Focus group study of PhD- and DNP-program faculty at CANS and DNP Organization conferences, respectively, to aid in developing study's on-line survey

Background

Previous focus group study of PhD and DNP-program faculty identified 3 themes:

- ❖ Increasing demands on doctoral program faculty and accelerating pace of academic life**
- ❖ Growing expectations of doctoral program faculty**
- ❖ Need to sustain themselves, their institutions, and the nursing discipline**

Background....

- ❖ **Heavy time commitment and demands imposed by doctoral program faculty position and high expectations for research and scholarship**
- ❖ **Long working hours, weekends, and beyond the months of their academic contract with encroachment of their academic role on personal and family time**
- ❖ **Both PhD and DNP program faculty questioned their ability to sustain the current level and pace and their commitment while sacrificing time for personal and family-related activities.**

Background....

Retirements of faculty, pressures to enroll and graduate more PhDs and DNPs for faculty positions, and expectations for teaching, research, and service, need to mentor new faculty, and contribute to nursing science



Possible negative effect on work-life balance, job satisfaction and willingness to remain in faculty position

Definition

Work-life balance:

- ❖ **Equilibrium between one's paid / professional work and one's personal life**
- ❖ **Ability to achieve and maintain “balance” between one's paid work and life outside work, whatever “life” is for the individual**
- ❖ **Identified as element of a healthy work environment for nursing faculty (NLN, 2005)**

Purpose

This portion of the study to conducted to:

- ❖ Build on the researchers' previous focus group study of program faculty**
- ❖ Examine work-life balance among faculty teaching in doctoral nursing programs**
- ❖ Identify factors that predict work-life balance among doctoral program faculty.**

Instrument

73-item on-line survey previously described included a 15-item Work-Life Self-Assessment Balance Scale (Hayman, 2005) with 3 subscales

Reliability of Work-Life Balance Assessment Scale: $\alpha = .885$

Respondents indicated frequency of behaviors related to WLB in past 3 months using 7-point time-related scale:

(1 = not at all, 4 = sometimes, 7 = all the time)

Lower scores = better work-life balance

Analysis

- **Descriptive statistics**
- χ^2
- **ANOVA**
- **Correlation**
- **Hierarchical regression**

Results

Work-life balance scores

	M \pm SD	Range
Total sample:	3.53 \pm .97	1.00 – 6.60

Scores differed significantly by

- **Age** (faculty age < 40 yrs had poorer WLB than other age groups)
- **Faculty rank** (full professors had better WLB than other ranks)
- **Tenure status** (non-tenured faculty had poorer WLB than tenured, clinical track and nonTT faculty)
- **Clinical practice involvement** (faculty not engaged in clinical practice had better WLB than those in clinical practice)

Results – Continued

WLB scores did not differ significantly by

- **Type of doctoral program faculty**
- **Type of academic institution**
- **Intent to leave academe in next year**

WLB scores were not correlated with research and scholarship productivity.

Nine program/faculty characteristics and eight implications/strategies were correlated with WLB scores.

Program/faculty characteristics and implications/strategies that were correlated with WLB were entered into a hierarchical regression in 2 steps to identify best predictors of WLB.

Hierarchical Regression Analysis of Predictors of Work-Life Balance

CHARACTERISTICS	B	SE	BETA
Current faculty position	-.106	.035	-.090*
Average # of hrs/week spent on teaching activities	-.010	.017	-.018
Availability of research / teaching assistant	-.013	.057	-.007
MSN program option in school of nursing	-.112	.105	-.032
STRATEGIES / IMPLICATIONS	B	SE	BETA
Routinely sacrifice weekend, down time, etc. to fulfill doctoral faculty role	.173	.033	.175**
Having family responsibilities is incompatible with being doctoral program faculty member	.124	.031	.135
Feeling that time focused on doctoral students is exhausting	.098	.033	.101*
Workload is detrimental to health and wellbeing	.386	.030	.466**
Experience fulfillment, love what I do, knowing my students and in their producing quality work	-.209	.041	-.152**

** $p < .01$; *** $p < .001$

Results on Work-Life Balance

Best predictors of work life balance:

- **Routinely sacrifice weekend, down time, to fulfill doctoral faculty role**
- **Feeling that time focused on doctoral students is exhausting**
- **Workload is viewed as detrimental to health and wellbeing**
- **Experience fulfillment, I love what I do, know my students and am rewarded by students producing quality work**

Major Findings: Work-Life Balance

Participants reported better work-life balance than expected.

Factors associated with good work-life balance included higher academic rank, having tenure, older age, years in education, current faculty position and no involvement in clinical practice; current faculty position was best predictor.

No significant differences were found in work-life balance by type of institution or type of doctoral program; no relationship was found between work-life balance and faculty members' research and scholarship productivity.

Conclusions and Summary

Many senior faculty members who successfully manage competing demands of faculty are approaching retirement; thus, strategies are needed to ensure continued research and scholarship among the next generation of faculty members.

More new DNP graduates than PhD graduates assumed faculty roles in 2013; therefore, efforts are needed to ensure that faculty teaching in DNP programs have supports needed to be successful.

Although work-life balance of the current sample of faculty was better than expected, as members of the next generation become faculty members, work-life balance may become more of an issue.

Recommendations

Doctoral Programs: Educate PhD and DNP applicants and graduates about the differences in the programs, and prepare them to approach employment with knowledge needed to ensure that they have the resources and supports needed to be successful in their positions.

Doctoral Programs: Include curricular components in PhD and DNP programs to ensure that graduates are prepared for academic roles to meet the anticipated needs for doctoral program faculty with the fast-approaching retirement of large numbers of senior nursing faculty.

DNP Programs: Offer coursework/ experiences to prepare students for academic positions as an optional track or certificate program; include content and experience related to external funding and dissemination of scholarship.

Recommendations...

Deans and Program Directors: Ensure institutional and administrative support at school and university levels to support PhD and DNP faculty members' research and scholarship through startup funding, interdisciplinary collaboration, research and teaching assistants, office of research support, and formal and informal mentoring.

Deans and Program Directors: Engage in thoughtful discussion about how they will deploy PhD and DNP faculty, and what programs of support and faculty development they will provide to ensure retention and advancement of tenure track and non-tenure track faculty.

Recommendations...

Corporate Employers: Develop job descriptions with specific requirements for PhD vs. DNP prepared nurses; all employing institutions should realistically appraise recruits' career stage and experience in addition to their academic preparation.

Nursing Organizations: Develop comprehensive guidelines for the educational preparation of faculty; develop and implement efforts to inform potential employers about PhD and DNP education and what can be expected of graduates in the workplace.





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