



Midwifery Education in Practice

The doctorate of nursing practice and entry into midwifery practice: Issues for consideration and debate

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ABSTRACT

The American College of Nurse-Midwives represents two cadres of midwifery professionals: certified nurse-midwives who are educated in both midwifery and nursing, and certified midwives who are educated in the discipline of midwifery. Certified nurse-midwives are designated by nursing professional organizations as advanced practice nurses. The United States nursing profession is advancing toward adoption of the Doctor of Nursing Practice degree, as the entry into practice credential for advanced practice nursing. There is no evidence to date to demonstrate differences in clinical practice outcomes between certified nurse-midwives and certified midwives. A secondary analysis of data from a series of compensation and benefits surveys did not demonstrate differences in salaries between respondents who held a practice-focused doctoral degree compared to a master's degree. The requirement of the practice-focused nursing doctoral degree for entry into midwifery practice for certified nurse-midwives would require additional evidence to support both a professional and a business case for such a change in policy. It would also require consideration of the professional and business impact that such a policy would have on certified midwives who do not hold the nursing credential. Equivalent entry into practice pathways would need to be developed.

1. Introduction

The American College of Nurse-Midwives (ACNM) represents two cadres of midwifery professionals: certified nurse-midwives (CNMs) who are educated in both midwifery and nursing, and certified midwives (CMs) who are educated in the discipline of midwifery (American College of Nurse-Midwives [ACNM], 2011). Both CNMs and CMs are nationally certified through the same credentialing examination process, and both cadres are entitled to the designation of midwife according to the International Confederation of Midwives (ICM) definition (ICM, 2017). Nurse-midwives, by virtue of the nursing credential, are also designated as advanced practice nurses (APN) (National Council of State Boards of Nursing, 2010). The legislative authority for APN practice is held by Boards of Nursing in the vast majority of the 50 United States (US) and the District of Columbia (Philips, 2019; Yang and Kozhimannil, 2015), making the profession of midwifery subject to the authority of nursing in most jurisdictions.

The American Association of Colleges of Nursing recommended in 2004 that the doctor of nursing practice (DNP) degree become the entry into advanced nursing practice by 2015 (American Association of

Colleges of Nursing [AACN], 2004). This recommendation, with the singular exception of Certified Registered Nurse Anesthetists, has not yet been enacted as policy. However, in 2015 the National Organization of Nurse Practitioner Faculties (NONPF) reaffirmed its alliance to advance the DNP as the entry level degree for nurse practitioners (NPs) and in 2018, NONPF made the commitment to move all entry-level NP programs to the DNP degree by 2025 (National Organization of Nurse Practitioner Faculties, [NONPF]; 2015, 2018). The AACN suggests that, until state laws currently requiring a master's or higher degree for entry into practice are amended, it would be useful, and more cost-effective, for students to spend additional time to obtain the DNP, in order to be prepared for future practice (AACN, 2012).

The current position of the ACNM is that the DNP represents one option for midwifery education but should not be a requirement for entry into midwifery practice because there are no data that address the need for additional education to practice safely as a midwife; the potential impact on the applicant pool (number and diversity); and the cost to the health care system (ACNM, 2012).

Educators and regulators in several global settings are exploring the doctoral degree model for midwifery education (Bharj et al., 2016;

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Table 1
Demographics for CNMs and CMs employed full-time, 2004–2014.

Characteristic	CNM/CM 2004 (N = 1304) n (%)	CNM/CM 2007 (N = 1386) n (%)	CNM/CM 2010 (N = 972) n (%)	CNM/CM 2014 (N = 1789) n (%)
CNM	1304 (CNM/CM)	1386 (CNM/CM)	967 (99.5)	1773 (99.1)
CM	–	–	5 (0.5)	16 (0.9)
Highest Academic Degree				
Diploma/ADN	66 (5.1)	62 (4.5)	28 (2.9)	20 (1.1)
BSN	56 (4.3)	56 (4.0)	33 (3.4)	33 (1.8)
BS (other)	29 (2.2)	20 (1.4)	7 (0.7)	16 (0.9)
MSN, MPH, MM	1025 (78.6)	1106 (79.8)	765 (78.7)	1420 (79.4)
Master's (other)	48 (3.7)	41 (3.0)	31 (3.2)	52 (2.9)
Doctorate practice focused	30 (2.3)	16 (1.2)	18 (1.9)	106 (5.9) ^a
Doctorate research focused	10 (0.8)	72 (5.2)	56 (5.8)	93 (5.2) ^b
Doctorate (other)	25 (1.9)	–	–	5 (0.3)
Missing	15 (1.2)	13 (0.9)	34 (3.5)	5 (0.3)
Years experience				
0–5 years	418 (32.1)	333 (24.1)	188 (19.3)	490 (27.4)
6–10 years	318 (24.4)	310 (22.4)	148 (15.2)	248 (13.9)
11–15 years	202 (15.5)	253 (18.3)	200 (20.6)	203 (11.3)
16 + years	348 (26.7)	488 (35.2)	433 (44.5)	818 (45.7)
Missing	18 (1.4)	1 (0.1)	3 (0.3)	30 (1.7)

– Indicates data not available in that year.

Abbreviations: ADN: Associate Degree in Nursing; BS: Bachelor of Science; BSN: Bachelor of Science in Nursing; MM: Master of Midwifery; MPH: Master of Public Health; MSN: Master of Science in Nursing.

^a Includes: Doctor of Nursing Practice (DNP); Nursing Doctorate (ND); Doctor of Public Health (DrPH); Doctor of Medicine (MD); Doctor of Jurisprudence (JD); Doctor of Pharmacy (PharmD).

^b Includes Doctor of Philosophy (PhD); Doctor of Nursing Science (DNS).

Cashin, 2017; Joachim, 2008). However, there are currently no policy or position statements set forth by the International Confederation of Midwives, the International Council of Nurses, or the World Health Organization, that would compel a doctoral degree requirement for practice.

Nevertheless, as of November 2018, 34 of the 38 midwifery education programs in the US that are accredited by the Accreditation Commission for Midwifery Education are situated within Schools of Nursing. Seventeen of these 34 programs offer the DNP (H. Mauer, personal communication, November 6, 2018), and no longer offer a master's degree option. Many more programs are currently developing a DNP pathway. Two programs have recently developed a program leading to the Doctor of Midwifery (DM) degree, as an optional higher education degree for qualified CNMs and as a parallel doctoral level entry into practice pathway for CNMs and for CMs, who do not hold a nursing credential.

A series of compensation and benefits surveys for CNMs and CMs was conducted over a 10-year period from 2004 to 2014 (Schuiling et al., 2019, in press). A secondary analysis of data was conducted to identify patterns of movement toward acquisition of the DNP by CNMs, and compensation patterns for those who hold the degree.

2. Methods

2.1. Ethics

Data were gathered in full compliance with the federal guidelines for ethical approval of survey research, and in compliance with the ACNM data protection policies that were current in the respective survey years (ACNM, 2008). All data were de-identified prior to analysis and analysis was done in the aggregate. Voluntary return of the survey was considered evidence of informed consent.

2.2. Instrument

The compensation and benefits surveys were developed by ACNM. The surveys were modified, adapted and augmented prior to each administration to reflect contemporary and emerging marketplace trends, and in response to requests from respondents and stakeholders.

2.3. Sample

Surveys were sent to all CNMs and CMs in the ACNM membership database who provided an email address (more than 98%). Using the total ACNM active CNM/CM membership as denominator, the response rate for 2004 was 22.8% (1304 CNM or CM respondents/5707 active CNM or CM members). Using this same formula, the response rates for 2007 (1386/5772); 2010 (972/6009) and 2014 (1789/6435) were 24.0%, 16.2%, and 27.8% respectively, in comparison with the 29% benchmark response rate for on-line surveys (Lindermann, 2018).

2.4. Data analysis

Data were analyzed with SPSS Version 21, using descriptive statistics and analysis of variance. Pairwise comparisons of means were conducted using Dunnett's T3 because subgroups demonstrated unequal variances. Reported wages were inflation adjusted to 2016 using the Consumer Price Index (CPI) from the Bureau of Labor Statistics (2018).

3. Results

The most prevalent academic degree reported by respondents across all four years was the master's degree; however, in 2014 the percentage of respondents reporting a doctoral degree (any academic designation) as the highest academic degree surpassed 11%; 5.9% reported holding a practice-focused degree. Nearly half had 16 or more years of experience in 2014 (Table 1).

Approximately half of the respondents who worked full-time clustered in the salary range of \$60,000 - \$80,000 in 2004; \$70,000 - \$90,000 in 2007; \$80,000 to \$100,000 in 2010 and \$90,000 to \$120,000 in 2014. Annual mean salaries for those employed full-time in 2014 were significantly different among respondents holding research doctorate degrees (e.g., PhD, mean = \$117,278, standard deviation [SD] = 37,867), practice doctorate degrees (e.g., DNP, mean = \$105,968, SD = 45,128) or master's degrees (mean = \$102,576, SD = 32,109) ($F = 4.233$, degrees of freedom [df] = 2, 1079, $p = .015$). Multiple comparisons using Dunnett's T3 revealed the difference to be between the research doctorate degree and the master's degree ($p = .047$).

CNMs/CMs with greater than 16 or more years' experience

(mean = \$111,952, SD = 38,547) were more highly compensated than those with 0–5 years' (mean = \$88,613; SD = 22,075; $p = .000$) or 6–10 years' experience (mean = \$100,689; SD = 31,807, $p = .000$). However, there was no interaction between years of experience and degree status ($p = .319$).

4. Discussion

It is important to note that the scope of practice of CNMs and CMs in the US is comparable to the basic scope of practice of international midwifery colleagues, as it is founded on the *ICM Essential Competencies for Basic Midwifery Practice* (ICM, 2018). However, the scope of US CNM/CM practice includes expanded responsibilities for sexual and reproductive health care (SRH) and primary health care (PHC) that are not necessarily within the scope of midwifery practice in other global settings. These expanded responsibilities are linked to basic licensure in each state; not to level of academic degree.

There is a limited body of literature that explores both sides of the discussion about an “educational case” for the DNP for midwifery practice (a topic beyond the scope of this article) (Avery et al., 2010; Avery and Howe, 2007). It is important to note that US midwifery educators have acknowledged the academic credit load required to incorporate the SRH and PHC content into the curriculum of studies, with subsequent financial burden due to length of enrollment.

Still, there was a substantial increase in the number of respondents who reported having some type of doctoral degree in the 2014 survey. The most remarkable increase was in the number of reported professional doctoral degrees, including the DNP.

It was not possible to attribute the salary reported in any year as a reflection of an increase due to receipt of the higher degree; pointing to the need to ask that specific question in future surveys. The contemporary NP literature offers very few studies that document the specific and direct financial benefit of the DNP higher degree to employers. Clinton and Sperhac (2006) suggested in those very early years of DNP program development that employers generally did not determine or raise salaries based solely on the degree a person holds, and that evidence had to be generated to demonstrate that a higher academic degree was correlated with improved client outcomes. More recently Bush (2014) also points to a dearth of published evidence to demonstrate that post-graduate nurse practitioner training (residencies and fellowships; not specifically including the DNP degree) improves patient outcomes, clinician competency, self-reported confidence, or job satisfaction (the economic and personal perspectives). A substantive body of evidence has been published over the past decade that points to the quality and effectiveness of care provided by NPs (Stanik-Hutt et al., 2013); but the literature linking quality of care to economic value is limited (Martin-Misner et al., 2015). Broome (2017) posits that the nursing profession must conduct studies to document differences in clinical outcomes between MSN and DNP prepared graduates in order to build the business case for requiring the DNP as entry into the nurse-practitioner role (the professional perspective).

Udlis and Mancuso (2015) document that nurses themselves do not perceive that employers prefer to have DNP graduates rather than master's prepared graduates. Employers may offer financial incentive or monetary support for continued professional development, including enrollment in DNP degree completion programs, and would want to measure the return on this investment (DeSilets, 2010; Opperman et al., 2016). Embree et al. (2018) used a business case framework to guide DNP program enhancements that would enable DNP graduates to acquire identifiable competencies that would make their potential contribution to health systems leadership more distinct.

It is noteworthy that our 2014 data indicated that CNMs/CMs who held doctoral degrees reported higher salaries than those who held the master's degree; but this comparison was not statistically significant when the practice doctorate and master's degrees were compared. Only those holding research doctoral degrees earned statistically

significantly higher wages than those holding master's degrees. The practice-focused degree was not associated with higher salaries in our findings.

5. Summary and conclusion

The proportion of CNMs and CMs holding doctoral degrees has increased to 11.1% as of 2014, with 5.9% reporting that they hold a practice-focused doctorate. The ACNM's 2012 position statement on the DNP will require reconsideration in light of the NONPF 2025 target date. The effort to build both the professional and the business case for mandating the DNP as the entry into practice degree for CNMs in accord with the NONPF alliance, will require significant attention by ACNM in the near future, as these clinical impact and cost data are not currently available. Equal consideration will need to be given to the impact of any change in position or policy on the professional parity of certified midwives, some of whom do not hold the nursing credential. ACNM must assure that these midwifery professionals will continue to be accorded the same access to licensure and professional practice privileges as those to which their CNM colleagues are entitled. It is long past time for the autonomous profession of midwifery in the US to assert its independent authority to define the policies that direct the future of professional midwifery practice.

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Declarations of interest

None.

Conflicts of interest

The authors declare no conflicts of interest.

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References

- American Association of Colleges of Nursing (AACN), 2004. AACN position statement on the practice doctorate in nursing. Retrieved from: <http://www.aacnnursing.org/DNP/Position-Statement>.
- American Association of Colleges of Nursing (AACN), 2012. Frequently asked questions. Retrieved from: <http://www.aacnnursing.org/DNP/About/FAQ>.
- American College of Nurse-Midwives (ACNM), 2011. Definition of Midwifery and Scope of Practice of Certified Nurse-Midwives and Certified Midwives. ACNM Division of Standards and Practice Retrieved from: <http://www.midwife.org/ACNM/files/ACNMLibraryData/UPLOADFILENAME/00000000266/Definition%20of%20Midwifery%20and%20Scope%20of%20Practice%20of%20CNMs%20and%20CMs%20Dec%202011.pdf>.
- American College of Nurse-Midwives (ACNM), 2008. Policy on protection of membership data used for research purposes. http://www.midwife.org/ACNM/files/ccLibraryFiles/Filename/00000000205/Research_Policy_Protection_of_Membership_Data_6_09.pdf.
- American College of Nurse-Midwives (ACNM), 2012. Position Statement. Midwifery education and the doctor of nursing practice (DNP). <http://www.midwife.org/ACNM/files/ACNMLibraryData/UPLOADFILENAME/00000000079/Midwifery%20Ed%20and%20DNP%20Position%20Statement%20June%202012.pdf>.
- Avery, M.D., Germano, E., Camune, B., 2010. Midwifery practice and nursing regulation: licensure, accreditation, certification, and education. *J. Midwifery Wom. Health* 55 (5), 411–414.
- Avery, M.D., Howe, C., 2007. The DNP and entry into midwifery practice: an analysis. *J. Midwifery Wom. Health* 52 (1), 14–22.
- Bharj, J.K., Luyben, A., Avery, M., Johnson, P., Barger, M.K., Bick, D., 2016. An agenda for midwifery education: advancing the state of the world's midwifery. *Midwifery* 33, 3–6.

- Broome, M., 2017. Ideology, evidence and the business case for the doctor of nursing practice. *Nurs. Outlook* 65, 351–352. <https://doi.org/10.1016/j.outlook.2017.07.002>.
- Bureau of Labor Statistics, U.S. Department of Labor, 2017. Consumer Price Index. Retrieved from: <https://www.bls.gov/news.release/pdf/cpi.pdf>.
- Bush, C.T., 2014. Postgraduate nurse practitioner training: what nurse executives need to know. *J. Nurs. Adm.* 44 (12), 625–627. <https://doi.org/10.1097/NNA.000000000000138>.
- Cashin, A., 2017. A scoping review of the progress of the evolution of the Doctor of Nursing Practice in the USA to inform consideration of future transformation of Nurse Practitioner education in Australia. *Collegian* 25, 141–146.
- Clinton, P., Spherac, A.M., 2006. National agenda for advanced practice nursing: the practice doctorate. *J. Prof. Nurs.* 22 (1), 7–14. <https://doi.org/10.1016/j.profnurs.2005.12.007>.
- DeSilets, L.D., 2010. Calculating the financial return on educational programs. *J. Cont. Educ. Nurs.* 41 (4), 149–150. <https://doi.org/10.3928/00220124-20100326-08>.
- Embree, J.L., Meek, J., Ebright, P., 2018. Voices of chief nursing executives informing a doctor of nursing practice program. *J. Prof. Nurs.* 34 (1), 12–15. <https://doi.org/10.1016/j.profnurs.2017.07.008>.
- International Confederation of Midwives, 2018. Essential competencies for basic midwifery practice. Retrieved from: <https://www.internationalmidwives.org/our-work/policy-and-practice/essential-competencies-for-midwifery-practice.html>.
- International Confederation of Midwives (ICM), 2017. ICM International definition of the midwife. Retrieved from: https://www.internationalmidwives.org/assets/files/definitions-files/2018/06/eng-definition_of_the_midwife-2017.pdf.
- Joachim, G., 2008. The practice doctorate: where do Canadian nursing leaders stand? *Nurs. Leader.* 21 (4), 42–51.
- Lindermann, N., 2018. What's the average survey response rate? [2018 benchmark]. Retrieved from: <https://surveyanyplace.com/average-survey-response-rate/>.
- Martin-Misener, R., Hartman, P., Donald, F., Reid, K., Kilpatrick, K., Carter, N., et al., 2015. Cost-effectiveness of nurse practitioners in primary and specialised ambulatory care: systematic review. *BMJ Open* 5 (6), e007167. <https://doi.org/10.1136/bmjopen-2014-007167>.
- National Council State Boards of Nursing, 2010. Campaign for APRN consensus: model for uniform national advanced practice registered nurse regulation: a handbook for legislators. Retrieved from: https://www.ncsbn.org/2010_APRN_HandbookforLegislators_web.pdf.
- National Organization of Nurse Practitioner Faculties (NONPF), 2015. The doctorate of nursing practice NP preparation: NONPF perspective 2015. Retrieved from: <https://cdn.ymaws.com/www.nonpf.org/resource/resmgr/DNP/NONPFDNPStatementSept2015.pdf>.
- National Organization of Nurse Practitioner Faculties (NONPF), 2018. The doctor of nursing practice degree: entry to nurse practitioner practice by 2025. Retrieved from: <https://cdn.ymaws.com/www.nonpf.org/resource/resmgr/DNP/NONPFDNPStatementSept2015.pdf>.
- Opperman, C., Liebig, D., Bowling, J., Johnson, C., Harper, M., 2016. Measuring return on investment for professional development activities. A review of the literature. *J. Nurses Prof. Dev.* 32 (3), 122–129. <https://doi.org/10.1097/NND.0000000000000262>.
- Philips, S., 2019. 31st annual APRN legislative update. *Nurse Pract.* 44 (1), 27–54.
- Schulling K., Sipe T. and Fullerton J., (in press), Compensation and Benefits Surveys for Certified Nurse-Midwives and Certified Midwives.
- Stanik-Hutt, J., Newhouse, R.P., White, K.M., Johantgen, M., Bass, E., Zangaro, G., et al., 2013. The quality and effectiveness of care provided by nurse practitioners. *J. Nurse Pract.* 9 (8), 492–500. <https://doi.org/10.1016/j.nurpra.2013.07.004>. e13.
- Udlis, K., Mancuso, J., 2015. Perceptions of the role of the doctor of nurse practice-prepared nurse: clarity or confusion. *J. Prof. Nurs.* 31 (4), 274–283. <https://doi.org/10.1016/j.profnurs.2015.01.004>.
- Yang, Y.T., Kozhimannil, D.B., 2015. Making a case to reduce legal impediments to midwifery practice in the United States. *Wom. Health Issues* 25 (4), 314–317.