Sexual and reproductive health content in nurse practitioner transition to practice training programs

Katherine Simmonds a,⁎, Joyce Cappiello b, Alex Hoyt a

a MGH Institute of Health Professions, School of Nursing, 36 1st Ave., Charlestown, MA 02129
b University of New Hampshire, 249 Hewitt Hall, Durham, NH 03825

ARTICLE INFO

Article history:
Received 30 July 2018
Received in revised form 4 March 2019
Accepted 5 March 2019

Keywords:
Nursing
Nurse practitioner
Primary care
Sexual and reproductive health
Post-graduate education
Competency

ABSTRACT

Objective: To describe the sexual and reproductive health (SRH) offerings of transition to practice training programs for certified primary care nurse practitioners in the United States.

Study design: Program Directors from all identified primary care training programs (n=51) were invited to participate in an online survey to assess the SRH didactic and clinical offerings based on competencies developed by the World Health Organization and adapted for the US across 15 domains and 15 related procedures.

Results: Twenty-two (43%) surveys were completed. There was considerable variation in offerings, with no single domain required by all programs, nor any program requiring trainees to complete didactic and clinical offerings in all domains. On average, programs required didactic and clinical training for approximately a third of the competencies in the Reproductive Tract Cancers domain (the most required domain) and for approximately a quarter of the competencies in the Contraceptive domain. Infertility/Fertility and Environmental Risks to Reproductive Health were the least commonly required domains. Clinical training tended to be more frequently required or offered than didactic instruction in almost all domains.

Regarding procedures, both didactic and clinical training on insertion and removal of intrauterine devices were required by one third of programs. No-scalpel vasectomy was the procedure in which programs were least likely to offer trainees either didactic or clinical training, followed by uterine aspiration for missed or elective abortion or heavy menstrual bleeding.

Conclusion: Although SRH is recognized as an essential component of primary care, its inclusion in transition to practice primary care training programs for NPs is low and inconsistent.

Implications statement: Preparing primary care NPs to deliver competent SRH care is important for workforce development and patient care. Our study highlights a need for additional research to determine the baseline competency in SRH care among primary care NPs in order to further enhance education, training and policies with this aim.

© 2019 The Author(s). Published by Elsevier Inc. This is an open access article under the CC BY-NC-ND license (http://creativecommons.org/licenses/by-nc-nd/4.0/).

1. Introduction

Nurse practitioners (NPs) are an increasingly important sector of the health care workforce in the United States (US). Most of the nation’s 248,000 NPs (86.6%) are prepared to provide primary care [1]. In 2016, over one quarter of providers in rural primary care practices were NPs, and NPs comprised nearly as much of the primary care workforce in non-rural settings [2]. To obtain licensure, NPs must complete an accredited graduate level education program and pass a national certification exam specific to the population foci for which they have been prepared (Family, Pediatrics, Psychiatric Mental Health, Women’s Health, Neonatal, or Adult/Gerontology) [3]. Curricula of NP education programs are based on nationally-established core competencies, as well as detailed competencies specific to each population foci.

Transition to practice after graduation is a recognized challenge for primary care NPs, especially those entering practice in underserved communities [4]. The National Academies of Science has recommended the creation and financing of postgraduate training programs (training programs), such as Nurse Residencies [5]. Community Health Center, Inc. (CHCI) established the first such training program for primary care NPs in 2007, which has served as a model for others. The organization recently published a guide that describes their model, which includes both formal didactic sessions and mentored clinical rotations [6]. By 2016, approximately 51 primary care training programs were in operation across the US. Though not required for entry into practice,
training programs are increasingly popular [7] and current demand is greater than capacity [6]. Voluntary national accreditation for training programs include a broad set of trainee competencies, however, evidence of improved outcomes among participants of training programs is limited [8].

Sexual and reproductive health (SRH) care is an essential component of primary care [9]. In 2011, the World Health Organization (WHO) issued core SRH competencies with the intent that these would be adapted by individual countries to enhance delivery of SRH care [9]. Though broad interprofessional SRH competencies were subsequently developed for the US [10], these have yet to be widely disseminated or empirically tested. A systematic review of literature from 1990 to 2016 found limited evidence of SRH care content in pre-licensure nursing education [11]; medical school curricula have similar deficiencies [12]. Little has been published about SRH didactic and clinical offerings among NP education or transition to practice programs for primary care NPs [13]. While the model developed by CHCI includes a number of didactic sessions on SRH-related topics (i.e. Sexually Transmitted Infections, Contraception, and Interpreting Pap Smears) and clinical rotations in Women’s Health, it is not clear if other training programs offer similar opportunities for their trainees.

We used the SRH competencies developed by WHO and tailored for the US as a framework to assess the offerings and requirements of extant training programs, and to identify gaps in training. This study began as a needs assessment, but because of the dearth of research in this area, the findings were felt to be useful to future efforts to build workforce capacity in SRH care broadly, and among primary care NPs who participate in transition to practice training programs, which comprise a fast-growing subset with high potential for leadership.

2. Methods

Following human subjects review, in November 2016 we emailed program directors of all extant primary care training programs (n = 51) an invitation to participate in an online survey or forward the invitation to a designee. We contacted potential participants via email three more times and attempted to reach each non-responder by phone on two occasions. Data collection ended in June 2017. All participants were asked “Does your program currently include didactic content or clinical opportunities in the following areas?” for 15 domains encompassing 45 items based on the SRH competencies (Table 1). We also queried respondents about training program requirements and offerings for 15 SRH-related procedures, included because of their relevance to the WHO and US-adapted competencies. Self-reported categories of inclusion were “required,” “optional,” or “not offered.” We combined categories into both clinical and didactic required, clinical offered or required, didactic offered or required, and either clinical or didactic offered (Table 3). For those domains with multiple competencies, we averaged the proportion of competencies required and/or offered across programs. For those domains with one competency, we report the proportion of programs offering and/or requiring. By grouping the data in this way, we could consider comprehensiveness of offerings and requirements (proportion of competencies) across a continuum (both clinical and didactic required to either clinical or didactic offered).

3. Results

Program directors or their designees completed 22 surveys (43%) (Table 2). We used addresses to determine that the 51 programs were in 21 states largely concentrated on the coasts. Sites included a mix of urban and rural settings, Federally-Qualified Health Centers (FQHCs), FQHC–“Look-alikes,”2 Veteran’s Administration Center of Excellence in Primary Care Centers, and other ambulatory clinics where primary care was delivered. Nine programs reported the host clinical agency received Title X funding, and of those, eight reported trainees delivered services supported by this program. The 22 responding programs were in 14 states (CA, CO, CT, HI, ID, IL, IN, MA, NY, RI, SC, VA, WA), and included a mix of urban and rural settings and types of service delivery sites. All respondents reported trainees in their programs received a total of at least 2 h/wk (range 2–8 h) of formal didactic content on a variety of topics. Twenty-one of the 22 programs required trainees to complete specialty rotations (e.g. Dermatology), and 19 included “Women’s Health” among these offerings. Information about the training offerings of non-responding programs were not readily available.

Survey responses showed considerable variation in didactic and clinical requirements and offerings. In none of the domains did all programs require clinical and didactic training for all competencies. The most commonly required domain was Reproductive Tract Cancers. On average, programs required both clinical and didactic training for 35.4% of the competencies in this domain. Comparatively, programs required both clinical and didactic education for only 23% of the competencies in the domain of Contraception. The least commonly required domains were Infertility/Fertility (6% of competencies, on average) and Environmental Risks to Reproductive Health (4% of programs).

Across all domains, clinical training tended to be more frequently required or offered than didactic instruction, except for male genitourinary conditions (Table 3).

Regarding procedures, insertion and removal of intrauterine devices (IUDs) was the most frequently reported to have both didactic and clinical requirements (33%), and most programs (91.3%) offered trainees at least one or the other learning approach (didactic or clinical). Subdermal contraception insertion and removal was the next most commonly required procedure (29.1%). In contrast, none of the programs required both didactic and clinical training in no-scalpel vasectomy, intrauterine insemination, or uterine aspiration (for miscarriage, elective abortion or heavy uterine bleeding).

4. Discussion

This study of US programs training certified NPs in primary care found considerable variation in the requirements and offerings related to SRH. All training programs that responded to our request for information offered at least some formal didactic and clinical training in SRH care, however, no program had requirements and offerings that would allow comprehensive training. Of the 15 domains, none were required didactic and clinical offerings across all training programs. Even for the most commonly required domain, Reproductive Tract Cancers, only slightly more than one third of the comprising competencies were required on average, suggesting that SRH care is not a priority for programs overall. While it is possible this is because trainees enter training programs with a high baseline level of knowledge and skill in SRH care, this seems unlikely based on our experience teaching and working with national NP education organizations. Factors reported to impede inclusion of SRH content in nursing education - time constraints, lack of curricular resources and competing demands with other curricular priorities [13] - may be at play in training programs as well. The fragmentation of SRH care in the US may also be a barrier for training programs, as these services are often delivered outside of regular primary care settings. Without baseline data about SRH offerings of NP education programs or students’ competence in SRH care upon graduation, it is not possible to fully interpret our findings.

The low level of didactic and clinical training offerings in reproductive health-related genetic screening we found are consistent with recognized challenges in disseminating genomic medicine among health care providers [14]. Primary care NPs are a critical link for patients to genetic counseling and screening. Ensuring their competence in this dynamic field is particularly pertinent to SRH care.
Our finding that the procedure most commonly required by training programs was IUD insertion mirrors efforts to increase access to this method through training primary care physicians [15]. In contrast, the limited number of programs offering uterine aspiration for spontaneous or elective abortion suggests unrealized potential to train a pool of providers who could expand access [16]. Our finding that clinical training was generally required or offered more than didactic sessions may reflect the limited resources available to support these programs. Future funding for NP residencies could lead to increased didactic offerings within training programs [17].

Limitations of our study include the low response rate, small sample size, and use of self-report without objective verification of responses. We recognize that program directors may not know details about trainees’ clinical learning experiences within mentored clinics, especially specialty rotations such as Women’s Health. Furthermore, while we do not have reason to think the SRH offerings of responding training programs are greatly different than those that did not, we cannot make this claim with confidence. While our study offers a glimpse into an
emerging approach to address challenges in transition to practice and retention within the primary care NP workforce, it also reveals the need for further research in several areas. First, identifying enablers and barriers to training across SRH domains could inform future efforts to address gaps. Second, based on our study, we assert SRH care should be incorporated political interference in health professions education programs and barriers to training across SRH domains could inform future efforts to address gaps. Finally, since the number of NPs who participate in training programs is only a fraction of those who graduate each year, investigating of clinical and didactic offerings of education programs and students’ competence in SRH care upon graduation could help prepare the broader primary care NP workforce, and provide evidence to support policies with this aim.

Threats to Title X and Planned Parenthood [19] as well as documented political interference in health professions education programs [20] lend new urgency to calls to ensure that primary care providers in the US deliver competent SRH care. Our study found inconsistent and incomplete incorporation of SRH competencies in transition to practice primary care NP training programs. Further research is needed to gauge the learning needs and outcomes of this growing sector of the health workforce in providing competent SRH care to patients.

Acknowledgments
This study was supported by Reproductive Health in Nursing, which was funded by an anonymous donor. Molly Battistelli, MPH also assisted with survey development.

References
[1] NP Fact Sheet | American Association of Nurse Practitioners. https://www.aapn.org/about/all-about-nps/np-fact-sheet, Accessed date: 3 January 2019.
[2] Barnes H, Richards MR, McHugh MD, Martsof G. Rural and nonrural primary care physician practices increasingly rely on nurse practitioners. Health Aff 2018;37: 908–14. https://doi.org/10.1377/hlthaff.2017.1150.
[3] National Council State. Boards nursing APN advisory committee & APN consensus work group. APN consensus model. https://www.ncsbn.org/APN-consensus-hum.htm; 2008, Accessed date: 8 January 2019.
[4] Flinter M, Hart AM. Thematic elements of the postgraduate np residency year and transition to the primary care provider role in a federally qualified health center. J Nurs Educ Pract 2017;13(7): 195. https://doi.org/10.5430/jnep.v7n1p195.
[5] National Academies of Sciences. Engineering and medicine. Assessing progress on competencies for undergraduate medical education in North America. J Sex Med 2017;14:535–40. https://doi.org/10.1016/J.JSXM.2017.01.007.
[14] Sperber Nina R, et al. Challenges and strategies for implementing genomic services in diverse settings: experiences from the implementing GeNomics in pracTicE (IGNITE) network. BMC Med Genet 2017;10:35.

[15] Schubert F, Herbitter C, Fletcher J, Gold M. IUD knowledge and experience among family medicine residents. Fam Med 2015;47(6):474–7.

[16] Freedman L, Battistelli MF, Gerdts C, McLemore M. Radical or routine? Nurse practitioners, nurse-midwives, and physician assistants as abortion providers. Reprod Health Matters 2015;23:90–2. https://doi.org/10.1016/j.rhm.2015.06.002.

[17] HRSA opportunity announcement CRDA number 93.247. Accessed at https://www.google.com/search?client=firefox-b-1-ab&hl=en&q=CRDA+number+93.247. (on January 12, 2019).

[18] Sciacca K, Reville B. Evaluation of nurse practitioners enrolled in fellowship and residency programs: methods and trends. J Nurse Pract 2016;12:e275–80. https://doi.org/10.1016/j.nurpra.2016.02.011.

[19] A Domestic Gag Rule And More: The Trump Administration’s Proposed Changes To Title X. Health Affairs Blog 2018. https://doi.org/10.1377/hblog20180614.838675.

[20] Taylor D, Oshansky E, Fugate Woods N, Johnson-Mallard V, Safriet B, et al. Corrigendum to position statement: political interference in sexual and reproductive health research and health professional education. NursOutlook 2017;65(2):242–5.