

UC Irvine

UC Irvine Previously Published Works

Title

Novel Pedagogical Training for Nursing Doctoral Students in Support of Remote Learning: A Win-Win Situation.

Permalink

<https://escholarship.org/uc/item/3zd9428n>

Journal

Nurse educator, 46(4)

ISSN

0363-3624

Authors

Burton, Candace W
Rodrigues, Sarah M
Jones-Patten, Alexandria E
[et al.](#)

Publication Date

2021-07-01

DOI

10.1097/nne.0000000000000967

Copyright Information

This work is made available under the terms of a Creative Commons Attribution License, available at <https://creativecommons.org/licenses/by/4.0/>

Peer reviewed

Novel Pedagogical Training for Nursing Doctoral Students in Support of Remote Learning

A Win-Win Situation

Candace W. Burton, PhD, RN, AFN-BC, AGN-BC; Sarah M. Rodrigues, BSN, RN; Alexandria E. Jones-Patten, MSN, RN; Eunae Ju, MS, RN; Heather L. Abraham, MSN, RN; Babak Saatchi, MSN; Stephen P. Wilcox, PhD; and Miriam Bender, PhD, RN

ABSTRACT

Background: The need for faculty to educate prospective nurses is urgent: without sufficient nursing faculty, schools regularly reject qualified applicants, despite an increasing need for nurses. At the same time, many graduate-prepared nurses lack preparation in teaching and pedagogical frameworks.

Problem: Literature on how PhD programs in nursing prepare graduates for teaching indicates that there is typically more emphasis on research than pedagogical learning.

Approach: With the shift to remote learning under the COVID-19 pandemic, the University of California Irvine created a Graduate Fellows program to provide support to faculty while offering graduate students education in pedagogy and remote learning.

Outcomes: Fellows were satisfied and reported increased understanding of challenges in teaching and increasing comfort with nurse faculty roles.

Conclusions: The collaborative efforts of fellows and faculty provided important resources at a critical time, and insights gained can inform similar projects in nursing faculty development.

Keywords: COVID-19, doctoral nursing education, nursing faculty, professional development

Cite this article as: Burton CW, Rodrigues SM, Jones-Patten AE, et al. Novel pedagogical training for nursing doctoral students in support of remote learning: a win-win situation. *Nurse Educ.* 2021;46(4):E79-E83. doi: 10.1097/NNE.0000000000000967

The need for qualified nursing faculty in academic institutions is significant. Although there are more RNs than any other professional group in the United States, the US Bureau of Labor Statistics projects a shortfall of more than 11 million nurses by 2026.¹ The need for qualified faculty to provide the education that prospective nurses require is thus even more urgent: without sufficient numbers of faculty, schools of nursing regularly reject qualified applicants despite the need for nurse personnel.² At the same time, many nurses who complete graduate education lack preparation in teaching, pedagogical frameworks, and other elements of teaching and learning that

support effective education.³ The transition to a faculty role is itself complex enough to present a multitude of challenges, and lack of relevant teaching or academic planning experience can further jeopardize faculty recruitment and retention.⁴ Providing opportunities for graduate level students in nursing to engage in teaching, course development, and other pedagogically oriented activities may help to improve competence, confidence, and overall satisfaction with the transition to a faculty role.

Problem

The American Association of Colleges of Nursing estimated that, as of October 2018, there were more than 1700 faculty vacancies in nursing education programs in the United States, and more than 90% of these positions required or preferred a doctoral degree.⁵ This is concerning given that as few as 1% of US nurses hold a doctoral degree and that many only obtain such a degree later in their careers, anywhere from 13 to 46 years later than those in other fields.⁶ The implications of these statistics are clear: too few nurses obtain terminal level degrees, and of those who do, many are likely to retire within a few years.

In addition, a lack of focus on pedagogical learning in nursing doctoral programs means that many graduates

Author Affiliations: Assistant Professor (Dr Burton), Doctoral Student (Mss Rodrigues, Jones-Patten, Ju, Abraham, and Mr Saatchi), Instructional Design & Faculty Development Manager (Dr Wilcox), and Associate Professor (Dr Bender), Sue & Bill Gross School of Nursing, University of California, Irvine. The authors declare no conflicts of interest.

Correspondence: Dr Burton, University of California, Irvine, 100 B Berk Hall, Irvine, CA 92697 (cwburton@hs.uci.edu).

Supplemental digital content is available for this article. Direct URL citations appear in the printed text and are provided in the HTML and PDF versions of this article on the journal's Web site (www.nurseeducatoronline.com).

Accepted for publication: November 23, 2020

Published ahead of print: February 3, 2021

DOI: 10.1097/NNE.0000000000000967

are not adequately prepared for teaching responsibilities. Reviewing the literature on how doctoral nursing programs, specifically PhD programs, function as preparatory conduits for teaching, Bullin⁷ notes the heavy emphasis on research education necessary in these programs may preclude such content—despite that early career faculty often have the heaviest and most complex teaching assignments. In addition, a study of content in nursing PhD programs found that 64% of respondents (n = 826) indicated that content on teaching and learning, curriculum design, and course development was lacking in these programs.⁸ Importantly, a study of nursing students' expectations of faculty also found that “knowing and using the proper education methods, techniques and strategies while teaching” was among the top 3 conditions regarded as essential to student success.⁹ Taken together, these findings demonstrate the importance of pedagogical preparation for prospective nursing faculty to the success of both students and the profession more broadly.

Recently, the COVID-19 pandemic has brought to light other issues related to teaching in nursing—perhaps most importantly, faculty discomfort or lack of facility in remote learning environments. In a qualitative study of the transition from traditional to online classroom environments, nursing faculty described challenges including the need to acquire new pedagogical skills, desire for mentorship, and need for education and professional development around online education.¹⁰ Because faculty members must often juggle research and service obligations in addition to teaching, taking the time to learn and develop skills with online and remote educational pedagogy as well as the associated technology may be challenging or even overwhelming. Likewise, nursing students may struggle with online or remote learning when faculty are not facile in these environments. One study indicated that students perceived a lack of communication as well as feedback in an online learning environment and that they felt less confident in their learning as a result.¹¹ Clearly, both faculty and students stand to benefit from increased attention to teaching and learning within terminal nursing degree programs.

Approach

In the early months of 2020, it became apparent that the global COVID-19 pandemic would necessitate changes in the traditional delivery structures of nursing education. As campuses suspended in-person classes, faculty were forced to rapidly shift to remote learning platforms and to adapt—many for the first time—to teaching via technology. As the pandemic persisted, it became apparent not only that courses would continue to be taught remotely for more than the few months originally anticipated but also that health care education was more vital than ever.¹² Given these demands, the need for support of faculty in making the shift to remote learning became a priority; however, resources were not always readily available. In addition, many graduate students were facing financial hardship due to cancellation of research assistantships and other positions due to the

pandemic. To address the needs of faculty and graduate students, the University of California Irvine (UCI) Division of Teaching Excellence and Innovation (DTEI) collaborated with the Graduate Division to establish the DTEI Graduate Fellows program during the summer of 2020. This article reports our pragmatic-participatory evaluation¹³ of the experiences of UCI's School of Nursing fellows using a qualitative case study approach as described by Harrison et al.¹⁴

DTEI Graduate Fellows Program

The DTEI Graduate Fellows program offered graduate students an opportunity to receive education in fundamentals of pedagogy and remote learning while providing support to faculty. The program was sponsored by the UCI DTEI and Graduate Division. Each university department conducted a needs assessment for shifting to primarily remote teaching, and fellows were assigned where needed. Five fellows, all current PhD students in nursing, were each assigned to work with 2 nursing faculty for 20 total hours each week. The 10 assigned faculty received an hour-long orientation from the faculty overseeing the fellows program in the School of Nursing, including goal setting, expectations of fellows, and information on remote instruction options. The fellows also received a weeklong course on remote instruction pedagogy from the DTEI and a 2-hour orientation to School of Nursing resources facilitated by the school's instructional design faculty member and Associate Dean for Academic and Student Affairs. Conceptually, this orientation emphasized the importance of leveraging fellows' experiences and instincts as nurses and nursing students, suggesting that their most significant asset was acting as an informed sounding board in the discussion of strategies previously created for face-to-face content. Fellows were provided with nursing templates for UCI's learning management system, digital course content from previous iterations, and “sandbox” spaces to support collaborative course construction by faculty and fellows. Fellows were also introduced to School of Nursing curriculum planning documents to support pedagogically sound online learning modules and assignments, and trained in the use of software for online synchronous classes and UCI's video streaming service. All fellows received a \$5000 stipend and a certificate in remote instruction for their work.

Program Evaluation

Once fellows were oriented and matched with collaborating faculty, we began to track participants' individual experiences and learning. This is in keeping with Dahler-Larsen's¹³ description of a pragmatic-participatory evaluation framework, which enlists a variety of stakeholders in conducting an evaluation, such that participants in the process being evaluated are also involved in conducting the evaluation. The framework was well suited to this particular project, because the fellows and overseeing faculty were collectively and collaboratively involved in both carrying out and evaluating the program.

To guide the evaluation, the faculty overseeing the program within the School of Nursing created a reflective evaluation form to guide fellows' tracking. The form development was informed by Meleis¹⁵ writing on the purpose of reflection in theoretical development for nursing, which emphasizes the importance of reflection as both a way of being and a means of focusing intuition as “an essential and...credible tool for developing theoretical connections.” The form had a total of 6 items, which asked fellows to indicate—since the last time they had completed the form—how much time they had spent on fellowship-related tasks, what tasks they had completed, what they had learned, and what discoveries or “aha!” moments they had. An additional item asked fellows to rate their confidence in completing tasks assigned, appropriateness of workload, communication with assigned faculty, and assessment of their own abilities to teach and create educational content on a 10-point Likert scale (1, unacceptable; 10, excellent). Finally, the form contained a free response field where fellows reflected on their experiences since the last completion. Before using the form, fellows and overseeing faculty reviewed the form together to ensure its clarity and comprehensiveness.

Fellows provided their feedback in this format 1 or more times each week. In addition, fellows and overseeing faculty including the instructional designer met for check-in discussions at several points during the 10-week fellowship period. These discussions allowed the fellows to ask questions, seek clarification on expectations, and obtain support from faculty and staff other than those with whom they were working. Faculty notes from these discussions were added to prompt form feedback in evaluating the program. All information was de-identified by one of the overseeing faculty before it was shared with the group. The fellows and overseeing faculty then reviewed the information collectively to develop this publication. This provided fellows an opportunity to practice professional writing and manuscript development skills in addition to the pedagogical and educational learning process of the DTEI program. Before initiating any information collection, we determined that the activities reported here met criteria for exempt status under the UCI Institutional Review Board (categories 1 and 2) using the standard UCI Office of Research Exempt Self-Determination Tool.

Standard descriptive statistics were calculated on the ratings questions, whereas reflection text was analyzed by an overseeing faculty member with expertise in qualitative and textual analysis. This analysis was carried out consistent with the case study and pragmatic-participatory evaluation frameworks and involved reviewing all responses to the open-ended questions and faculty notes from the check-in meetings, identifying patterns among these, and then determining what elements of the program experience were most manifest or crucial in these commonalities, which in turn became categories of data. Fellows were invited to review and provide feedback on the results of the analysis, propose changes, or offer additional details.

Outcomes

Overall, the program gave student participants important new insights and provided very satisfactory experiences in regard to teaching and learning. Responses to the questions ranged from 5 to 10 out of a possible 10, with an overall average of 9.08 (SD, 0.34). For feelings of confidence in their work, the mean was 8.48; workload reasonableness had an average of 8.97, knowledge gain averaged 9.33, competence as an instructor had a mean of 9.03, improved abilities in teaching and learning averaged 9.45, and communication with faculty averaged 9.21. All scores increased during the course of the fellowship.

Responses to the open-ended questions were quite revealing, particularly in terms of specific skills fellows reported learning and how their thinking about teaching and learning evolved. The patterns identified in these data yielded broad categories of “Pedagogy” and “Work of an Instructor.” In the former, fellows reported discovering how their own learning preferences influenced their ability to support course material development as well as discovering what kinds of content were prioritized and why. Notably, they found this experience different from working as a teaching assistant (TA). One fellow commented: “This is an experience which is so different from my TA-ships. While the TA-ships have been very grading- and lab-oriented, with this Fellowship I have a higher ‘vantage point’ with regard to teaching. I can see the bigger picture, and I now feel the full weight of my future...responsibilities.” Another, who was asked to develop rubrics for some assignments, noted that they had never had instruction in this and, because it was a difficult task to create good rubrics, were grateful for the experience. Others commented on discovering resources and learning management system tools that could support TA as well as faculty work.

Discovering the components of teaching and learning, as well as how to improve these, was also frequently referenced. One fellow reflected, “I am gradually learning the position of the teaching person. Last week, as I handled a lot of materials, I reconsidered how to help students learn without missing important content and how to apply my skill to make effective slides.” Others similarly noted the significance of making the shift from traditional face-to-face instruction to remote methodology and the need to understand and be fluent in the necessary technology. Similarly, some fellows remarked on their developing understanding of what it meant to shift to remote learning longer-term and the importance of realizing that it was just as hard for students as for faculty. One commented: “I’m getting a glimpse at what the expectations will be of me. I’m also less concerned about my ability to be able to teach a course than I was when this...fellowship started. I’m realizing you need more than just a passion to teach.” Another noted that, in considering the use of a flipped classroom strategy, they began to “think hard about teaching and learning, why we do the things we do, and—particularly for traditional large undergrad STEM-type courses—is this the ‘best’ way to teach? This ‘disruption’ to our ‘normal way

of doing things' presents an opportunity to re-evaluate pedagogical approaches."

The category "Work of an Instructor" included important insights about taking on the teaching role and what influences faculty have on course success. This category was especially interesting as fellows commented on this being their first experience taking on the role of instructor. They described considering "what kind of teacher I want to be," "the [effort] that goes into preparing a course," and "my ability to solve [teaching] problems." One fellow noted, "It has been fascinating to determine what my professors do in each quarter. It was more difficult than I thought!" Others reflected changes in perspective on the mission of teaching: "I have to work to teach future nurse leaders that they have a voice, and it is their responsibility to use it to advocate for their patients," and "Now while I recognize the use of certain technologies to help me teach, I realize that 95% of my focus/prep work/time needs to be on 'how do I best teach this subject to this group of students.'"

Fellows also considered the value of the DTEI program and suggested ways to build on the experience, some of which are included as Supplemental Digital Content, Table, <http://links.lww.com/NE/A888>. One fellow noted the benefit of being able to "see course design from both the instructional and student point of view. I can put myself in both shoes, and go back and forth about what will work best from both perspectives." Suggestions for additional content and continuation included having fellows transition into TA-ship with the same faculty to follow the implementation of the courses they had worked on, matching fellows with courses they might be likely to teach in the future based on their areas of expertise, and providing more clarity about expectations at the outset. All fellows also commented on the importance for future faculty in nursing to have the opportunity to learn about teaching. Comments included "This experience has been a gift"; "I continue to learn how much work really goes into teaching a course"; "By now, I can say every moment of this summer could be considered as an opportunity to learn new things"; and "This fellowship is an excellent opportunity for every student to be a good instructor because there are many things...to gain knowledge about...when it comes to online teaching." Additional insights, tips, and learning that fellows felt important are included in Supplemental Digital Content, Table, <http://links.lww.com/NE/A888>.

For the overseeing faculty, a surprising insight from fellows' feedback was how disconnected the PhD students felt from faculty within the School of Nursing. One fellow described feeling nervous that faculty would not trust them if they did not complete an assigned task despite having technological problems, whereas others noted feeling grateful for the extended contact with faculty and increased comfort interacting with faculty. Another remarked that "the hands-on experience in working with faculty is the factor that changed my way of thinking."

Implications and Recommendations

The overall experience of participating in the DTEI Fellows program was positive for both fellows and faculty, and important insights emerged. Perhaps most significant was fellows' increased understanding of how teaching is woven into the faculty role. Doctoral curricula in nursing typically lack pedagogical content, and no consensus on appropriate preparation for nurse educators is yet established.¹⁶ In addition, early career faculty in nursing are often overwhelmed by the transition from graduate student to faculty and may not know what tools or resources can support their teaching. As 1 report of a program designed to recruit and retain nursing faculty noted, this transition is complex and new faculty may struggle to acclimate to the multiple demands of the tripartite faculty responsibilities in teaching, scholarship, and service.¹⁷ Feedback from the fellows in this program suggests that the opportunity to discover the scope of teaching and complexities of course development was enlightening. This may be a critical activity, as a study of nursing doctoral students' interest in academic careers demonstrated that interest in teaching greatly increased the odds of pursuing an academic versus nonacademic career path (odds ratio, 4.424; $P < .0001$).¹⁸ Experiences in teaching and learning during doctoral education in nursing may thus be an effective recruitment and retention strategy for nursing faculty. As effective teaching is, in and of itself, an area of specialization,¹⁶ preparation in pedagogical approaches during doctoral education may also help early career faculty more quickly and effectively establish teaching practices.

Also in the interest of retaining nursing PhD graduates in academic settings, more interactions with faculty as colleagues may allow graduate students to develop communication skills and confidence in navigating the academic unit. Mentorship by other faculty members has been shown to be important for early career faculty integration into new academic environments,¹⁷ yet some new nursing faculty experience rejection by more senior personnel¹⁹ and feel that they do not know how to interact with their new colleagues.²⁰ The feedback from fellows suggested that doctoral students in nursing can benefit from closer and more inclusive interactions with a variety of faculty during their education. In this case, we further capitalized on the opportunity to engage PhD students in professional academic activities through the development of this article. The collaboration between students and faculty thus extended beyond the fellows program and provided an opportunity to experience writing as part of a team and to compare experiences across different collaborations.

Finally, both fellows and faculty members had important recommendations for future iterations of this or similar programs. Some were topical, such as including guidance on writing NCLEX-style test questions, developing "boilerplate" course objectives to incorporate focus on social justice issues, and considering which courses might have the heaviest or lightest workloads for fellows. Other suggestions were more overarching. Fellows who were assigned

to support faculty teaching courses that they themselves were interested in teaching or were in line with their own expertise found they were better able to assimilate content and focus on teaching methodology. This is an important insight and has implications both for this program and for early career faculty teaching assignments more generally. Early career faculty may bear significant teaching workloads either because they lack other sources of salary support or because they must do considerable preparatory work for their first courses,^{17,21} and having comfort with course topics as well as with appropriate delivery may reduce this burden.

On the whole, fellows' comments reflected that the program offered important professional development opportunities. Fellows gained skills in pedagogical thinking, course development, and educational technology. Other relevant concerns for replication include fiscal logistics and the availability of appropriately prepared faculty to carry out necessary orientation and support for participants. In our case, resources that would have been allocated to other types of campus student employment were reallocated to the fellows program; however, the innovative nature of this project could be attractive to external funders as well. Another critical aspect was the close collaboration with a faculty member specializing in instructional design, and we encourage any institution seeking to implement such a program to identify a source of similar expertise. Finally, capturing impressions and feedback from fellows in near-real time, as well as involving them directly in the development of this article, provided an unusual and valuable experience in evaluation and scholarly writing practices. Although it might not always be feasible to develop a publication, faculty should actively seek opportunities to engage PhD students in professional development activities related to similar programming. These could include assignment development, creation of conceptual models, or recording of lectures for asynchronous learning.

Conclusion

Remedying the shortage of nursing faculty in the United States and beyond is an immense task, and without attention to the ways in which graduate students are prepared for or acclimated to the faculty role, the nursing profession cannot progress. Lack of preparation for teaching in doctoral nursing curricula means that many early career faculty members have little to no experience or facility in teaching and can be overwhelmed with the demands of their new role. The goal of this program was to allow students and faculty to collaborate on educational efforts during the COVID-19–related transition to remote learning: students had an opportunity to explore pedagogical and educational avenues, and faculty received support in the transition to remote instruction. The collaborative efforts of the UCIDTEI fellows and faculty in the UCI School of Nursing provided both groups with important support and resources at a critical time, and yielded insights that can inform similar or related efforts in nursing faculty development.

References

- Haddad LM, Annamaraju P, Toney-Butler TJ. *Nursing Shortage*. StatPearls Publishing; 2020. Available at <https://www.ncbi.nlm.nih.gov/books/NBK493175/>. Accessed July 16, 2020.
- Harris J. Challenges of nursing faculty retention. *Midwest Q*. 2019;60(3):251+. Available at <https://link.gale.com/apps/doc/A583693211/LitRC?u=ucirvine&sid=LitRC&xid=2566a2a3>. Accessed July 17, 2020.
- Gazza EA. Alleviating the nurse faculty shortage: designating and preparing the academic nurse educator as an advanced practice registered nurse. *Nurs Forum*. 2019;54(2):144-148. doi:10.1111/nuf.12307.
- Bagley K, Hoppe L, Brenner GH, Weir M. Transition to nursing faculty: exploring the barriers. *Teach Learn Nurs*. 2018;13(4):263-267. doi:<https://doi.org/10.1016/j.teln.2018.03.009>.
- Rosseter R. Nursing faculty shortage. American Association of Colleges of Nursing. Available at <https://www.aacnursing.org/News-Information/Fact-Sheets/Nursing-Faculty-Shortage>. Accessed July 21, 2020.
- Robert Wood Johnson Foundation. Robert Wood Johnson Foundation announces \$20 million grant to support nurse phd scientists. 2013. Available at <https://www.rwjf.org/en/library/articles-and-news/2013/06/a-new-generation-of-nurse-scientists-educators-and-transform.html>. Accessed July 21, 2020.
- Bullin C. To what extent has doctoral (PhD) education supported academic nurse educators in their teaching roles: an integrative review. *BMC Nurs*. 2018;17(1):6. doi:10.1186/s12912-018-0273-3.
- King TS, Melnyk BM, O'Brien T, et al. Doctoral degree preferences for nurse educators: findings from a national study. *Nurse Educ*. 2020;45(3):144-149. doi:10.1097/NNE.0000000000000730.
- Bagcivan G, Cinar FI, Tosun N, Korkmaz R. Determination of nursing students' expectations for faculty members and the perceived stressors during their education. *Contemp Nurse*. 2015;50(1):58-71. doi:10.1080/10376178.2015.1010259.
- Sinacori BC. How nurse educators perceive the transition from the traditional classroom to the online environment: a qualitative inquiry. *Nurs Educ Perspect*. 2020;41(1):16-19. doi:10.1097/01.Nep.0000000000000490.
- Bramer C. Preregistration adult nursing students' experiences of online learning: a qualitative study. *Br J Nurs*. 2020;29(12):677-683. doi:10.12968/bjon.2020.29.12.677.
- Anderson ML, Turbow S, Willgerodt MA, Ruhnke GW. Education in a crisis: the opportunity of our lives. *J Hosp Med*. 2020;15(5):287-289.
- Dahler-Larsen P. Qualitative evaluation: methods, ethics, and politics with stakeholders. In: NK Denzin, YS Lincoln, eds. *The Sage Handbook of Qualitative Research*. 5th ed. Sage; 2018:867-886.
- Harrison H, Birks M, Franklin R, Mills J. Case study research: foundations and methodological orientations. Article 19. 2017;18(1). doi:10.17169/fqs-18.1.2655.
- Meleis AI. *Theoretical Nursing, Development and Progress*. 6th ed. Wolters Kluwer; 2018.
- Booth TL, Emerson CJ, Hackney MG, Souter S. Preparation of academic nurse educators. *Nurse Educ Pract*. 2016;19:54-57. <https://doi.org/10.1016/j.nepr.2016.04.006>.
- Feldman HR, Greenberg MJ, Jaffe-Ruiz M, Kaufman SR, Cignarale S. Hitting the nursing faculty shortage head on: strategies to recruit, retain, and develop nursing faculty. *J Prof Nurs*. 2015;31(3):170-178. <https://doi.org/10.1016/j.profnurs.2015.01.007>.
- Fang D, Bednash GD, Arietti R. Identifying barriers and facilitators to nurse faculty careers for PhD nursing students. *J Prof Nurs*. 2016;32(3):193-201. <https://doi.org/10.1016/j.profnurs.2015.10.001>.
- Peters AB. Faculty to faculty incivility: experiences of novice nurse faculty in academia. *J Prof Nurs*. 2014;30(3):213-227. <https://doi.org/10.1016/j.profnurs.2013.09.007>.
- Burton CW. Paying the caring tax: the detrimental influences of gender expectations on the development of nursing education and science. *ANS Adv Nurs Sci*. 2020;43(3):266-277. doi:10.1097/ans.0000000000000319.
- Wyllie A, DiGiacomo M, Jackson D, Davidson P, Phillips J. Acknowledging attributes that enable the career academic nurse to thrive in the tertiary education sector: a qualitative systematic review. *Nurse Educ Today*. 2016;45:212-218. <https://doi.org/10.1016/j.nedt.2016.08.010>.