

**EXPLORING THE GRADUATE RESEARCH ASSISTANT EXPERIENCE:
PERSPECTIVES OF PHD STUDENTS IN A NURSING PROGRAM**

by

CADEN J. MCINTIRE

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CADEN MCINTIRE

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Approved by:

MITZI PESTANER, PhD, JD, LLM, RN

East Carolina University College of Nursing

Abstract

Less than 1% of nurses hold a PhD in nursing, and many who begin these programs do not graduate. PhD-prepared nurses frequently serve in academic roles, educating future nurses and addressing the nursing shortage. This highlights the importance of research focused on supporting student success in PhD programs. At East Carolina University's (ECU) College of Nursing (CON), PhD students can work as graduate research assistants during their studies. Graduate research assistants collaborate with faculty across different stages of the research process, which can shape their academic and career trajectories. To explore this experience the following research question was developed: how did the experience of serving as a graduate research assistant impact PhD nursing students' academic progress and nursing career? An explanatory sequential mixed methods design was utilized. Participants completed a demographic questionnaire through REDCap, followed by a virtual focus group conducted via Teams. During qualitative data analysis, holistic coding was used during first cycle coding followed by sub-coding. Six themes evolved while analyzing the data. Academic progress was influenced by opportunities to apply classroom material, fund their education, and receive support from the faculty. Nursing career was influenced by the development of relationships, personalizing their practice as a nurse scientist, and the ability to make informed career decisions post-graduation. These insights could inform strategies to improve PhD student retention and encourage engagement in similar roles post-graduation. Future studies could benefit from examining faculty perspectives on the graduate research assistant program and exploring similar experiences at other institutions.

Exploring the Graduate Research Assistant Experience: Perspectives of PhD Students and Nursing Faculty in a Nursing Program

In education, there lies an inherent dichotomy between classroom theory and transitioning knowledge into action. Bridging the gap between the two is vital for a program to be marketable and successful. The Doctor of Philosophy (PhD) in Nursing is a program navigating this reality. Less than 1% of registered nurses have a PhD in nursing (Ayoola et al., 2021). Importantly, this shortage of PhD prepared nurses implies a significant lack of nurses that are prepared to conduct research and analyze results needed to foster innovation, improve patient outcomes, and advocate for change in our healthcare system, as well as educate prospective nursing students (Quay et al., 2023). It is estimated that 1/3 of the current nurse educators will retire by 2025 (Quay et al., 2023). This is concerning as the shortage of nurse educators will continue to heighten the shortage of practicing nurses (Quay et al., 2023). Among undergraduate students, it was found that hands-on research experience, discrete research programs, faculty involvement, inclusive cultures, and exposure to graduate students and courses were effective interventions to increase PhD enrollment (Muñoz, 2022). With this in mind, the degree to which a program can provide for its students is in equal part what it can contribute to the body of nursing research and education for the next generation of nurses.

Background

The Graduate Research Assistant (GRA) program at East Carolina University's College of Nursing provides a unique experience for its PhD students by providing them with the opportunity to work with researching faculty. Graduate research assistants may be asked to assist with literature reviews, organize research data, and format manuscripts and reference lists. Since providing hands-on research experience has been found to enhance PhD enrollment (Muñoz,

2022), this may be one method to positively influence retention. While there are many studies which have reviewed strategies to recruit and maintain enrollment of nursing PhD students, there is a lack of studies looking at the use of graduate research assistants in nursing PhD programs. However, there are many studies on mentorship of PhD students in other disciplines.

Mentorship programs have used models to enhance effectiveness, such as a constellation mentorship model (Porat-Dahlerbruch et al., 2021), strategies for student success in nursing PhD programs during and upon graduation (Fisher et al., 2022), mentorship of students in doctoral nursing programs (Cleary et al., 2023), and mentorship of doctoral students on scholarly projects and dissertations (Anderson et al, 2019). A qualitative analysis study looking at PhD students that mentor undergraduate nursing students found that there were mutual benefits for both the mentor and the mentee (Abbott-Anderson et al., 2016). Undergraduate mentees had the opportunity to apply material taught in the classroom, observe the research process, and felt inspired to pursue further education post-graduation. PhD mentors found more effective ways to communicate project details, manage time, and gained a new perspective on the relationship they have with their own mentor (Abbott-Anderson et al., 2016). This study suggests that similar benefits could be found between graduate research assistant nursing PhD students working with nursing faculty. Yet, there is limited research regarding the use of graduate research assistants in nursing PhD programs. Therefore, this research explored the benefits of being involved in a graduate research assistant program for students.

The purpose of this study was to explore the influence of the graduate research assistant program at East Carolina University's College of Nursing on students' academic progress and intentions to pursue a career in nursing science. By conducting research on this topic using past and present GRAs, we gained a better understanding of how this experience affected student

learning; what aspects of their experience they found beneficial to their personal, career, and academic development; and what aspects of their experience were unsatisfactory. The graduate research assistant perspective provided insight relating to benefits, drawbacks, experiences, and student retention.

Research Question

The research question was: how did the experience of serving as a graduate research assistant impact PhD nursing students' academic progress and nursing career?

Methodology

An explanatory sequential mixed methods research design was used to study the variables of interest led by our faculty mentors. Dr. Linda Bolin serves as the Principal Investigator and Dr. Mitzi Pestaner is a member of the research team. The research team met approximately once or twice a month via Teams throughout the research process. A Teams folder was created so that all members of the team would have access to documents on an as needed basis. IRB approval was obtained from the institution during the onset of the research project.

Faculty and current graduate research assistants were a feasible group to recruit due to their connection to the university. Past graduate research assistants were found using lists from previous enrollment, email lists, and LinkedIn. All groups received an email script outlining the purpose and details of the research; how the research will be used; and what they will be asked to do. This was a purposive sample as participants must have had experience working as a graduate research assistant at the College of Nursing. As such, we recruited all that met the criteria for participation. Inclusion criteria were that participants should be 18 years or older; and current PhD nursing students who serve as graduate research assistants at the College of Nursing or prior PhD nursing students who served as graduate research assistants at the College of Nursing since

2014 or current College of Nursing tenured, tenure-track or fixed term faculty. Exclusion criteria included current or prior graduate research assistants that are or were not PhD nursing students.

Quantitative data was collected from current and past graduate research assistants using questionnaires placed in REDCap. Qualitative data was collected using one focus group. The focus group was conducted virtually via Teams due to convenience and the location of participants. The focus group questions focused on participants' perceptions of their experiences while in the program. Funding for \$50 gift cards for participant incentives was secured from East Carolina University from the Undergraduate Research and Creativity Award. During qualitative data analysis, holistic coding was used during first cycle coding followed by sub-coding to examine the influence of their experience on academic process and impact on their career (Saldaña, 2021). Examining the reflections of the graduate research assistants led to a better understanding of how satisfied students were with the graduate research assistant program at East Carolina University's College of Nursing and if their experience motivated them to pursue a career in nursing science or education.

Results

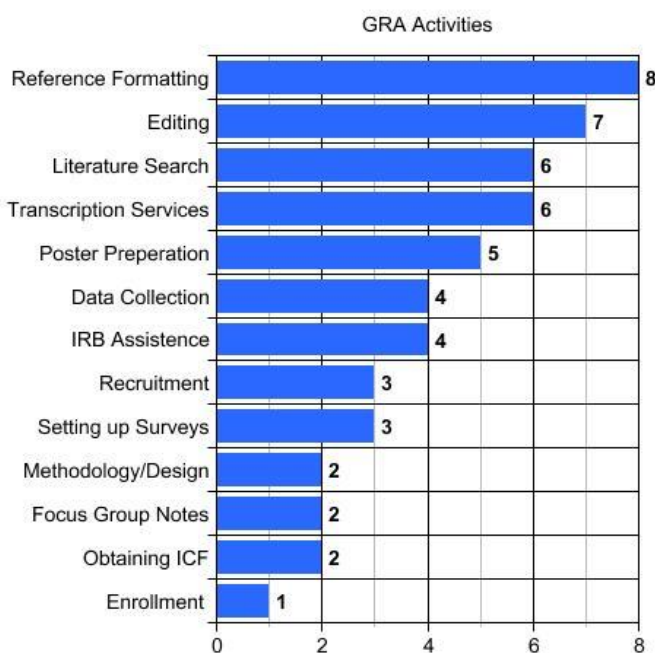
Survey Demographics

Eighteen participants started the survey, but only 8 completed all responses, for a total sample of 8 participants. Of the 8 participants, some had graduated ($n=3$); and others were in various stages of their curriculum including being in the 1st year ($n=1$); 2nd year ($n=2$); and 3rd year ($n=1$); and one participant had withdrawn from the program. Respondents identified as female ($n=7$) and male ($n=1$). Demographics relating to work as a graduate research assistant also varied from each respondent. Respondents described their work setting as virtual ($n=5$); face-to-face ($n=2$) and hybrid ($n=1$). One respondent also worked as a graduate research assistant

at an institution other than East Carolina University. The university they served at was not noted within the survey. Respondents described various activities throughout their time as a graduate research assistant (see Figure 1).

Figure 1

Graduate Research Assistant Activities



Dissemination of findings included publication of a manuscript ($n=3$), completion of an abstract ($n=2$), poster presentation ($n=2$), and podium presentation ($n=1$).

Six themes evolved during thematic analysis related to academic impact and nursing career. The three themes related to academic impact were *Applying Material*, *Funding Education*, and *Supporting Students*. The three themes related to career impact were *Developing Relationships*, *Personalizing Practice*, and *Navigating Career*.

Academic Impact

Applying Material

Participants spoke at length about how being involved with the research process led to more clarity in the classroom. They felt they were able to apply the theory of what was taught to situations outside the classroom. This cross-connection between theory and practice allowed the graduate research assistants to feel much more confident in both areas. Upon being asked about their motivation for being a graduate research assistant, one participant stated, “This would be a good opportunity to learn alongside my coursework and be able to apply what I’m learning.” Another participant described this by saying, “I just really wanted a full immersion experience.” Later during the focus group, further insight was given to the connection between theory and practice as one of the participants stated, “I feel a lot more confident now...I really think my graduate research assistant experience gave me this confidence to be able to understand [research].” All these comments by the participants demonstrate the connection graduate research assistants were able to make by applying the material they were taught.

Funding Education

Receiving financial incentives for their work as a graduate research assistant was also a significant factor in participants’ motivation to be a graduate research assistant and continued enrollment in the degree program. As a graduate research assistant, the students receive both tuition remission (for full-time graduate research assistants) and a monthly stipend (salary) for their contributions. All participants in the focus group made statements supporting that tuition remission was valued above the salary received. One participant went as far to say that “the tuition remission [was huge].” In this participant’s situation, they ended up losing the tuition remission due to factors outside of the student and institution’s control. Speaking to this, the same participant stated, “that was a big struggle for me in trying to decide if I wanted to continue.” Another participant speaking on this topic gave similar remarks: “Honestly, the tuition

remission was a huge deciding factor for me.” Both comments, along with others, stressed the importance of receiving financial assistance along with opportunities to gain experience in research in supporting their academic journey.

Supporting Students

A third key theme noted that impacted the graduate research assistants’ academic progress is the support they received from the institution along with its faculty. Several participants noted the multidimensional support they received throughout their time in the program. One participant stated, “we had support at all different types of levels, whether it was [financial support] ...support from another graduate research assistant to accomplish a task, [emotional support, and encouragement].” Another participant shared similar sentiments by stating that when a project wasn’t going as expected, the faculty member made sure to communicate with them, ensuring the work was not overbearing and that they could still complete assignments for their degree program while keeping in mind they were still working as a registered nurse at the same time. As a final note, when participants were speaking on this topic, they seemed to be most lively and expressive, indicating the deep impact this had on their academic progress.

Career Impact

Developing Relationships

Regarding the impact being a graduate research assistant had on the development of their career, no aspect was mentioned more than the ability to network and establish relationships. By working as a graduate research assistant, students were able to get to know faculty members as well as their colleagues who were conducting research with them. One participant mentioned how their experience as a graduate research assistant allowed them to develop relationships that

they continued by conducting research after graduation from the PhD program. Another mentioned the importance of learning where certain data sets were located and how to access them. This participant stated that this knowledge allowed them to perform a secondary analysis of the data and to publish their work. Both opportunities were directly linked to their time as a graduate research assistant, which allowed them to get their foot in the door in many aspects and advance their career.

Personalizing Practice

In addition to developing relationships, participants also mentioned the ability to learn from other researchers. In doing so, aspects of efficiency and decision making were able to be deeply considered before graduating and performing research on their own. As a result, the graduate research assistants noted what they wanted to emulate in their practice as a nurse researcher and other aspects they wanted to avoid. One participant put this simply by stating that,

as a novice nurse scientist, [working with an interprofessional team to collect data] put on my radar what I wanted to do...role modelling what behaviors I wanted to adopt and what behaviors I did not want to adopt that [seemed] to be less productive and less effective. So, I learned a lot about what I wanted to do and not do going forward.

Other remarks from those in the focus group supported this sentiment by explaining how exposure to different parts of research such as transcribing allowed them to see the process of developing research. One participant explained this by stating that a big take away from being a graduate research assistant is that “you have to schedule time to write...because I’m starting to see now [that if] I don’t do that, then it doesn’t happen.” Both remarks show the valuable lessons they learned from being a graduate research assistant and how they have applied them to their career as a nursing researcher.

Navigating Careers

An unexpected finding from our focus group was how their experience as a graduate research assistant allowed them to make decisions about their career both present and future. By speaking with those experienced nurse researchers, the students were able to chart a path to reach career goals and understand what best fit their goals. One participant had a unique experience by stating that “[being a graduate research assistant] greatly affected my decision to transition to the MSN program because I understood that the PhD was not the best fit for me at that time.” Speaking to former points, this participant stated they had a great deal of support about their decision to switch programs. Another participant spoke about the opportunity they had in speaking with a tenured faculty and how they were able to obtain a wealth of knowledge regarding the process of tenure at an academic institution. Lastly, the graduate research assistants also had monthly meetings where additional career and educational opportunities were shared. In speaking about this, it was said “I’m not sure I would have learned the same things just being in coursework.” In all instances, it was clear how being a graduate research assistant allowed each person to make decisions about their career after graduation.

Program Suggestions

There were also several points of constructive criticism from those who partook in the focus group that may have influenced their academic trajectory and career choice. The aspect of being a graduate research assistant that was voiced most often and to the greatest extent was the distribution of work, responsibilities, and timekeeping. Two out of the three participants often brought up how there would be nothing to do for some graduate research assistants while at the same time others were drowning in work. In suggesting changes, they mentioned how it would be useful if additional graduate research assistants could be assigned to a project if needed to

even the distribution of work and reduce workload for the graduate research assistant assigned to a project that is time consuming. From further comments, it seemed that steps were taken to improve timekeeping for graduate research assistants to track who is working on what projects, but that evenly distributing work is still a work in progress. Lastly, it was brought up that a way to improve the program would be to cater project assignments to a student's interests. For example, one of the participants noted that they ended up working mostly on transcription. While they enjoyed doing this, it was voiced that they felt a lack of frequent exposure to other areas of conducting research.

Discussion

There were a few trends that were noted during the focus group. All participants voiced that they were very pleased with their participation as a graduate research assistant and that it prepared them well to perform research along with developing their career path. Each participant also voiced their gratitude for the exposure and experience associated with being in the graduate research assistant program as well as similar reasons for entering the program. Primarily, noting the ability to get paid for experience in the field of research was a key finding. A couple of participants specifically mentioned the value of being able to network. One participant noted that they have continued their collaboration with an organization post-graduation. Lastly, all participants noted the great amount of support they received from the school itself as well as the faculty to make decisions that benefit the student the most, instead of solely considering the needs of faculty rather than pushing for what would make the university look good.

The findings from the focus group aligned with what was found during the original literature review. Similar to Waddington (2023), statements from participants demonstrated the impact being a graduate research assistant had on increasing self-efficacy. A qualitative study

aiming to “understand the meaning of online co-teaching for PhD faculty and teaching assistants (TAs)” found results suggesting an increase in their students’ perception of their self-efficacy (Acosta et. al., 2019, p. 2891). Despite a small sample size, the findings of this study set an important precedent. Findings were that “all participants (faculty and TAs alike), grew in their skills and professionalism as they taught” (p. 2893). Acosta et al. (2019) discusses the growth experience by the TAs from teaching while enrolled in their program and what was considered best practice for gathering data to support needed changes through their use of narrative pedagogy. One of these statements for best practice states that, “it became clear that the concepts of narrative pedagogy provided an excellent framework for organizing the mentored teaching experience” (p. 2898). Further implications are generalizable to performing research. The results of this study seem to suggest that by allowing students to engage in research that similar effects of increased self-efficacy and learning can be achieved.

Similar to our study, Paul et al. (2021) explored student perceptions of their experiences. The purpose of this study was to “examine the views of students about their experience and development as scholars during the first two years of an online cohort nursing doctoral program” (p.1). Like our study, Paul et al. (2021) had a sample size of ten PhD nursing students. This study utilized semi-structured interviews to interview one cohort of students twice. Paul et al. (2021) found that four themes emerged during thematic analysis: adjustment, emotional and academic support, reflection, and becoming a scholar. Interestingly, these findings are closely related to emerging themes from this study, with a participant in the Paul et al. (2021) study discussing at length their experiences as a graduate research assistant. The participant described networking, research partnerships, and the opportunity to co-author multiple publications as a benefit of their graduate research assistant position. Further, this was the only

study to directly mention the use of graduate research assistants. With a striking resemblance to this study, trends are suggested despite a limited body of research.

Implications

In future studies, analyzing faculty perspectives about the GRA program may reveal barriers and facilitators impacting students' experiences. With multiple participants stating that communication was an issue and several indicating they experienced a virtual graduate research assistant experience, it is just as important to consider factors impacting the faculties' ability to engage with the students. It is unknown if faculty undergo training or must meet certain standards to be paired with a graduate research assistant. In addition to this, asking how faculty are supported while working with a graduate research assistant may be vital as well. Since the graduate student is often inexperienced and requires a larger time investment to complete tasks, it would be valuable to learn if this is considered as part of the faculty workload. While essential to understanding the larger picture, due to the nature of this study, these aspects were not considered.

Lastly, for a broader understanding of graduate research programs, analysis within other institutions would be beneficial. Though the research on mentorship and teaching assistants is vast, there is limited research on graduate research assistants. As with many of these studies, nursing populations are not the primary focus either; thus, studies investigating facilitators to recruit and retain PhD nursing students is needed. Conducting research such as in this study could prove to be a useful model going forward if performed amongst various institutions. In addition to this, a longitudinal study, such as interviewing students throughout the length of their time in the program, would likely produce more insightful and accurate results. Regardless,

having the research to note consistencies amongst student perceptions from multiple programs will be essential in setting a standard and principles of best practice.

Conclusion

The findings of this research support ways to address ongoing issues in the field of nursing, including the lack of nursing faculty members with a PhD and the low retention rate of nursing students in PhD programs. By identifying the aspects of working as a graduate research assistant that contribute to academic progress and a future nursing career, attractive and beneficial opportunities may be created for prospective students. These evidence-based developments in nursing programs could increase retention rates of students in nursing PhD programs and provide them with a satisfying experience that may lead them to engage with similar graduate research assistant programs as a faculty educator and nurse scientist.

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