



Perceptions of Doctoral Programs' Training and Preparedness for Academic Careers

Thalia MacMillan¹ Donna S. Wang² Folusho Otuyelu³ Anthony Hill⁴

ABSTRACT: There is a need to explore how prepared doctoral program graduates are to work in academia. This study explored the experiences of doctoral students and graduates in an effort to identify the ways that programs can support students towards professional success as academic faculty members. A cross sectional online survey was administered using convenience sampling of social work doctoral students and graduates. A total of 70 people completed an online survey. The results found that gender, providing external resources to support teaching skills, and number of sources of mentorship explained 54% of the variance in the level of preparedness for academic careers. Additionally, responses to open-ended questions indicated that overall, doctoral programs were successful in preparing graduates to conduct research. However, areas that were perceived as not adequate include mentoring in publication, teaching, and navigating the real-world of academia. Additionally, systemic issues, such as racial and gender disparities, were also identified. The overall findings indicated that continued disparities exist for race and gender in academia.

Keywords: doctoral education, faculty, higher education, mentoring, teaching



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Higher education seems to be at several crossroads. Estimates have noted that 50% of college faculty considered retiring or changing careers (Neitzel, 2021); many reported changing modalities, dealing with students, decreasing enrollments, and/or being asked to take on higher workloads (Neitzel, 2021). Over the past 20 years, the number of doctoral programs have expanded, coupled with an increased length of time to degree completion and changing demographics of students pursuing doctoral degrees (Blessinger, 2016).

As noted by Booth (2008), the number of doctoral programs and graduates has risen substantially within the past 50 years. Yet only 56% of current doctoral students are expected to complete their doctoral programs (CGS, 2021). The overall purpose of a doctoral program is to prepare a student for their future career, with a particular focus on preparing those to work in

¹ SUNY Empire State College, New York, USA

^{2&4} Springfield College, Massachusetts, USA

³ Touro College, New York, USA

academia. As many current faculty are retiring or leaving the profession and only half of current doctoral students are expected to complete their programs, the question exists if current students feel prepared to step into the role of an academic faculty member.

The changing demographics of doctoral students is also noteworthy. The student body of doctoral programs is more diverse than ever before by race, ethnicity, ability, and gender identity (Blessinger, 2016). The ratio of women to men in doctoral programs has shifted over the years from 1 in 10 to 2 to 1 (Statista, 2022). In 2019, nearly 70% of doctorate recipients were white; 10% were Asian, 8% were Latino, 7% were Black and 3% identified as more than one race. Blacks, Latinos and Native Americans earned about 5,500 doctorates in 2019, which is a 6.7% jump from 2018 (Fernandez, 2021). As doctoral programs are being impacted by the social and cultural needs of society, preparation for faculty roles in academia may differ and should be explored.

While increasing diversity of doctoral students is encouraging, discrimination within programs is still concerning. For example, Black and Latinx women describe experiences of invisibility, dehumanization, microaggressions, tokenism, receiving poor mentorship, and not being supported in their research endeavors (Bettencourt et al., 2021; Gildersleeve et al., 2011; Squire & McCain, 2018). Asian American and Pacific Islander doctoral students report lacking faculty role models and experiencing stereotyping (Talusán, 2016). Research has not yet to fully explore the differing perspectives of preparation by the varying types of diversity.

The function of doctoral programs has also recently shifted. Previously doctoral programs largely focused on providing students with a grounding in the knowledge of their chosen field; a shift in the past 20 years finds programs with an additional focus on preparing students for careers in academia, with a focus on teaching (Blessinger, 2016). Preparing doctoral students for teaching can include curriculum focused on teaching skills, providing students with teaching opportunities, supporting student growth in teaching through formal and informal mentoring, and training outside the program's formal curriculum related to teaching (Mantai, 2018; Skakni, 2018). However, it is not clear if this type of preparation is effective.

Mentoring or supervising within doctoral programs has been explored as an avenue to support doctoral students into successful academic careers as it represents an informal approach for development (Vos, 2013). Mentoring, either internal or external to the institution and formal or non-formal in nature, has an impact on the level of preparation of the student and their

retention within the doctoral program (Golde, 2001; McAlpine et al., 2020). The importance of doctoral mentorship cannot be understated (Marino, 2020), yet most doctoral programs do not offer a formalized mentorship program.

The Group for the Advancement of Doctoral Education (GADE) states that the purpose of social work education is to serve the discipline and its research tradition (Goodman, 2015). Faculty are critical to the success of the program. In addition to teaching the next generation of social work practitioners, faculty are often engaged in scholarship, service, and administrative duties, such a program administration, curriculum development, outcome assessment, and student management. How these faculty members are trained and prepared for their numerous roles is largely unknown. We know very little about doctoral education in social work, particularly about methods doctoral programs use to pre Anastas and Kuerbis (2008) challenged the profession to answer the questions: "What are their experiences like as doctoral students, and what do their experiences suggest about where we can make improvements to our doctoral programs?". Yet, these questions have not been answered. pare doctoral students for teaching, scholarship, practice, or faculty roles (Maynard et al., 2017).

This study builds on past articles that cite some of the growing issues for social work doctoral programs (Acquavita & Tice, 2015; Anastas & Kuerbus, 2008; Goodman, 2015; Howard, 2016; Maynard et al., 2017). Given the shifts in doctoral programs over the past 20 years potentially caused by the changing social and cultural needs of society, the shift in demographics of doctoral students, and the increased demands of new faculty, an assessment of student perceptions of their level of preparation for academic realities was explored in the present study. This exploratory study specifically sought to examine the relationship of student demographics, experiences with mentorship, and access to resources has on perceptions of academic program preparation to eventually work in academia.

Methods

This study involved an anonymous, cross-sectional survey administered online through Qualtrics Survey Software. Institutional Review Board approval was secured prior to survey distribution. Data were collected in June and July 2021 and targeted respondents with experience as students in doctoral programs in the United States (US). Informed consent was provided in the introduction of the survey, and completion of the survey was considered consent for participation. Survey completion took approximately ten minutes to complete.

Participants were recruited through convenience and snowball sampling, utilizing the researchers' professional and personal networks. The survey link was shared amongst current doctoral students and faculty at universities, through listservs of academic faculty and staff members from across the United States, and through social media groups that aim to support teachers and administrators in higher education. Recipients of the link were asked to share with potential respondents.

The survey consisted of fifty-five researcher-constructed individual items. These items were piloted on a sample of 10 individuals. Respondents were asked to evaluate the priorities exhibited by their doctoral programs. Such priorities related to supporting doctoral students and faculty research, as well as encouraging and supporting doctoral student teaching.

Student perception of program preparation for work in the academic field was assessed through participant agreement with Likert-type statements relating to teaching, curriculum development, program development, research, and academic service. For each item on the scale, the respondent was asked to indicate how well they felt prepared for that specific item with a Likert-type response (1= *not well at all* to 5= *extremely well*). These items were generated by the researchers based empirically from existing literature and those considered for tenure track faculty. A summative scale score of perception of program preparation for work in the academic field was created to allow for individual statement and aggregate analyses. A higher score indicated a higher level of preparation. Reliability estimates for the summative scale was .90.

Respondent demographic characteristics were collected to evaluate their relationship to perceptions of program preparation. Respondents were asked to provide various demographical information including age, gender identity, race and ethnicity, and employment experience in higher education. Respondents were also asked if they received mentorship from internal or external sources, either yes or no, as well as to indicate the numbers of mentors they had.

Four open-ended questions were asked as well, and are as follows: 1) Why did you choose to pursue a doctorate?; 2) How has/did your doctoral program impact your professional goals?; 3) What, if anything, do you wish your doctoral program had done differently to prepare you as a teacher, researcher, and/or faculty member?; and 4) If there is anything else that you wish to share about your experiences in your doctoral program, please do so.

Results

A total of 70 people who specialized in the field of social work/welfare completed the online survey. The majority of the sample identified as female (72.9%), already earned a PhD (78.1%),

currently working at a college or university (84.3%), and White (65.7%). The average age of respondents was 50.04 (sd = 11.56). Table 1 displays the summary demographics of the sample. The mean number of sources of mentorship was 1.40 (sd = 1.40).

Table 1. *Demographics of the sample*

Demographic	Range/ n	\bar{x} (sd)/ %
Age	31 - 78	50.0 (11.21)
Gender identity		
Female	51	77.6
Male	16	22.4
Genderqueer or Nonbinary	3	4.3
Racial Identity*		
Asian	1	1.4
Black or African-American	13	18.6
Hispanic, Latino or Spanish origin	5	7.1
White	46	65.7
Multi-ethnic	5	7.1
Currently Employed by College/University	59	84.3

In terms of the perceptions of their doctoral programs priorities, respondents reported that on average programs prioritized resources and support for research (mean= 3.37, sd=1.47), than encouraging teaching (mean= 3.53, sd = 1.20), prioritizing the learning of teaching skills throughout the curriculum (mean= 2.74, sd = 1.42), or prioritizing advancing teaching skills with resources outside the curriculum (mean= 2.50, sd = 1.38). Please see Table 2 for further information of the reported priorities of doctoral programs.

Table 2. *Priorities of doctoral programs*

Doctoral program resource	Range	Mean (SD)
Research of doctoral students are prioritized with resources/support	1 - 5	3.37 (1.47)
Research of faculty are prioritized with resources/support	1 - 5	3.96 (1.28)
Doctoral students are encouraged to teach	1 - 5	3.53 (1.20)
Teaching skills are prioritized as a focus in the curriculum	1 - 5	2.74 (1.42)
Teaching skills are prioritized with resources outside the program	1 - 5	2.50 (1.38)
Number of sources of mentorship	0 - 6	1.67 (1.46)

Bivariate analyses of the relationship between the summative scale variable on general preparation was conducted across all study variables, including demographics. There were no significant differences found between race and the scale score for preparation ($t = 0.35$, $p = .73$) or gender identity ($t = 1.74$, $p = .08$). The scale score for preparation was significantly correlated with program priorities for supporting teaching skills of doctoral students ($r = .428$, $p < .001$), support with resources outside the doctoral curriculum ($r = .628$, $p < .001$), support for doctoral students encouraged to teach ($r = .242$, $p < .01$), support for research accomplishments

of doctoral students prioritized with resources ($r = .246, p < .01$), and number of mentors a student had while in a PhD program ($r = .289, p < .01$).

A hierarchical multiple regression analysis was conducted to determine the factors related to level of preparation (See Table 3). The regression model was built both theoretically on the existing literature and empirically with bivariate relationships. The predictors in the final model explained 54% of the variance in the level of preparedness. Three factors (i.e. gender, received mentoring while in the program, and teaching skills of doctoral students are supported through resources outside the doctoral curriculum) were significant predictors in the model. Participants who identified as Male, those who had teaching skills supported through resources outside the curriculum, and those who received mentoring while in the program felt a higher level of preparation. The strongest predictor in the model of level of preparedness was teaching skills supported through resources outside the doctoral curriculum.

Table 3. Hierarchical regression analysis of predictors of level of preparedness

Predictors	Model 1 B
Gender (female)	-.22**
Racial Identity (non-white)	-.04
Currently employed	.01
Received mentoring while in the program	-.32**
Research accomplishments of doctoral students are prioritized with supportive resources	.05
Research accomplishments of faculty are prioritized with supported resources	-.06
Doctoral students are encouraged to teach	-.02
Teaching skills are prioritized through the curriculum	.15
Teaching skills are supported through resources outside the curriculum	.47**
R ²	.54

$n = 70, *p < 0.05, **p < 0.001$

Responses to open-ended questions

The responses to the open-ended questions helped to clarify and confirm the results of the quantitative analysis. The main themes of the responses can be divided into two broad categories, explicit curriculum (teaching, research/grants, and publication) and implicit (mentoring, personal life, navigating academia, and systemic issues, such as racism and sexism). The subthemes of each are described below. For explicit, participants did not feel prepared for teaching and publication; while some felt prepared for research, others did not. For implicit, participants felt unprepared and unsure of what to expect in academia; others reported personal issues that surfaced to cause problems. It should also be noted that these categories are not mutually exclusive, as many respondents believed that they are intertwined, and one area affects, or strengthens, or weakens other areas. Further many respondents reflected mixed responses in terms of positive and negative experiences. Both positive and negative were found within each category; participants may have liked one aspect of a program but also suggested areas for opportunity as a result.

Teaching

Teaching and pedagogy surfaced as the most frequent area in which participants felt unprepared. Many respondents mentioned that they may have taken one course on teaching philosophy, but still felt completely unprepared to teach a course, prepare curriculum, or manage a classroom. Participants responded with statements such as "I was completely ill prepared to teach" and "With an exception of my teaching practicum and one (unhelpful) course, there was no formal support for preparing me for becoming a faculty member".

Research/Grants

Many participants expressed satisfaction with their level of theoretical preparation or having learned the research skills necessary to complete research, such as "I was highly prepared for research and grant writing. This was more due to my GRA (Graduate Research Assistantship) as opposed to classes". However, more opportunities to actually conduct research, grant writing, and/or get hands-on experience were expressed as a need, as well as specific areas or components of research, such as data analysis or qualitative methods. Respondents provide the following feedback: "More on how to conduct data analysis", "More research mentoring and really pushing us to explore areas not previously researched or associated with social work", "There was zero education regarding grants. The professors ranged from highly motivated to moderately disinterested", "Perhaps more preparation in grant writing" and "Provide more quantitative and qualitative research assistance".

Publication

Although mentioned less than teaching and research, preparing for publication was also raised. Mostly, respondents did not feel prepared or exposed to the publication process as indicated by the following statements: "I wish my program provided required opportunities built into the program to produce scholarly journal articles. Even if I did not submit them for review, it would help me with how to write them", and "I feel I got a strong grounding in research methods, but I wish there was more of a focus on how to translate research for scholarly publications. I wish there was more mentoring and opportunities to write journal articles built into the program".

Mentoring

Mentoring, which has been discussed as a critical aspect of doctoral education, was frequently discussed among our respondents, particularly as something that was lacking. Many suggestions and ideas emerged, though very few expressed satisfaction with the mentoring process they received during their program. Participants stated: "I wish there had been a formal mentoring program", "In my undergrad and first master's program, the university has a robust career development office and network. I feel like once you get to the doctoral program level, it is either under-funded or incredibly competitive. Neither of those assist future professors to publish, teach, and understand the environment we are currently in with regard to the academy. I still don't think there is enough mentoring, support, and practical skills in navigating a difficult academic environment", and "I guess I wish there was more structure. It was very much sink or swim."

Personal life

In addition to the preparation they received, participants also spoke of the many ways the doctoral program impacted their personal life, such as student debt, and learning how to balance

work and personal responsibilities. Although these are not necessarily the onus of doctoral programs, awareness of these issues on students is important to be aware of, as it impacts retention. Comments from the participants include: "While I now have the degree, I also have crippling student loan debt, and a lack luster vita due to poor guidance from my major professor", and "There was no support for self-care and burn out and work/life balance".

Systemic issues: Racism/Sexism

Respondents also raised issues related to systematic issues that are noteworthy to highlight. Participants mentioned things such as "As a mom, being prepared for how to support your family and work-life balance is rarely, if ever discussed. The system is still very white male-dominated and the model of the teaching", "There were two students of color under me who dropped the program due to lack of support, and frankly racism", "I was one of three BIPOC students and was told the school made history accepting us. The director of the doctoral program could not even differentiate me from another female student of color and would call the male student of color something other than his name...needless to say, I wanted to get OUT. Thus, the resources were not a priority to me personally", "My social work PhD program highly favored male PhD students. They literally got keys to the place, special conference and publication opportunities, and social favoritism, which was interesting because the program was 90% female (students and faculty)".

Discussion

Findings from the current study indicate disparities by gender, mentorship, and support for teaching resources in the perceptions about doctoral program preparation for careers in academia. In this study, female respondents perceived a lower level of preparation compared to males. Considering that females tend to have a slightly higher rate of doctoral degree completion (AEI, 2021), it is surprising that females felt less prepared to work in academia. There are several possible explanations for this. As noted in the qualitative themes, males may have been provided more support and resources throughout doctoral programs and upon hire. Thus, these findings should be explored further.

When other variables were controlled for, ethnic identity was not significantly related to perceptions of readiness to work in academia. As the student body in doctoral programs diversifies, it is still largely White majority. Given how previous research reported on the feelings of marginalization experienced by Black and Latinx students in their doctoral programs (Bettencourt et al., 2021), the findings of the quantitative analysis did not support this but the qualitative thematic analysis did. These findings should be explored further with a more diverse sample and by examining specific fields of discipline.

This study also highlights the importance of mentorship. Respondents who reported having a mentor while in a PhD program reported higher level of preparedness to work in academia. As mentoring provides a role model, it would follow that having a mentor is related to feeling more prepared to work in the field. When students arrive into academia, they come with assumptions about they will experience (Jepsen, 2012). The presence of mentoring may aid in shaping assumptions whereby level of preparation can be fashioned even further (Golde, 2001; McAlpine et al., 2020). As the current study combined internal and external mentoring, there may be a need to examine the different types of mentoring for its effect on level of preparation.

Feeling that teaching skills were prioritized through resources outside the curriculum was significantly associated with feeling more prepared to work in academia. Doctoral programs seemed to prepare students in two different ways; the first is to develop the depth and breadth of knowledge within their area of expertise, while the second is to prepare individuals to work in academia (Mantai, 2018). The quantity of preparation both within the curriculum and the type of resources could be examined more in depth in future research.

There was no significant association of the summative scale score for preparedness with current employment, prioritization of research accomplishments with resources, prioritization of faculty research accomplishments, and doctoral students being encouraged to teach on perception of preparedness.

Limitations

There are limitations to this study that need to be noted. The major limitation relates to the non-probability sampling method, which yielded a study sample that is not necessarily representative of the population who hold a doctorate in the United States. The vast majority of the sample was White and female, for instance. Additionally, the use of an internet survey to gather responses might also have skewed participation towards younger participants. Despite the limitations of the present study, the findings are relevant to the growing the knowledge base about the experiences of students in doctoral programs, in order to better inform support for them. Further research is needed to ensure that doctoral programs are prepared to meet the needs of their students.

Conclusion

Doctoral programs aim to prepare students for specific fields and/or to work in academic roles. The findings from this study represent key opportunities for doctoral programs to improve their efforts to evolve in the development of students towards these goals, especially for women and non-White students. The findings of this study suggest that focusing on formal and informal mentoring programs would be helpful to prepare and aid doctoral students to feel confident in the goal of having a career in academia and develop as individuals. Mentoring opportunities in a multitude of areas, such as teaching, research, and/or content may prove useful to students.

Other attempts to support professional development and provide additional resources, like integrating workshops external to the program curriculum, could provide doctoral students with additional preparation to work in academia. Student development through informal or self-directed resources or workshops may be able to highlight different aspects of teaching or working in academia.

Finally, the provision of information about the realities of working in academia needs to be shared with students. Many may not be aware of what is expected, including the realities of tenure-track positions, teaching, research, service, scholarship, and/or grant writing.

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