

**NC STATE**  
UNIVERSITY

College of Education  
Friday Institute for Educational Innovation

**EXPLORING THE  
LANDSCAPE OF GRADUATE  
STUDENT MENTAL HEALTH  
AND ADVISING  
RELATIONSHIPS IN  
EDUCATOR PREPARATION  
PROGRAMS**

20

23

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# EXECUTIVE SUMMARY

## Importance of the research

The upcoming generation of professionals are experiencing more severe anxiety, depression, and psychological distress at higher rates than older generations, and graduate students are at an increased risk for mental health concerns (Bernstein, LeBlanc, Bentley, Barreira, & McNally, 2021). One of the more common mental health concerns in graduate students associated with anxiety and burnout is the impostor phenomenon (IP). While IP is prevalent among graduate students, rates among racial, ethnic, and gender minority groups are even higher (Leach, Nygaard, Chipman, Brunsvold, & Marek, 2018; Cohen & McConnell, 2019; Wang, Sheveleva, & Permyakova, 2019). Some researchers have even suggested that the academic culture can generate feelings of impostorism, through colleagues questioning expertise, the pressure to publish and produce research, the comparison with other colleagues, and the inability to internalize feelings of success (Hutchins & Rainbolt, 2017).

Researchers Cohen and McConnell (2019) examined graduate school program environments and the factors that contributed to greater or lesser feelings of impostorism in students. They found that perceptions of high-quality mentorship and reports of decreased competition and isolation corresponded with less frequent impostor fears in graduate students (Cohen & McConnell, 2019). The current research study seeks to expand upon this research by focusing on graduate students in education-related fields to further understand the interactions between the quality of mentoring relationships and feelings of anxiety and impostorism. The study places special emphasis on racially and ethnically diverse graduate students, who often face compounded stressors in the academic environment.

## Research questions

This study is the first phase in understanding how anxiety in graduate students, quality of mentorship, and a focus (or lack thereof) on mental health within programs affects graduate student feelings of competence, quality of work, and time to graduation. The results from Phase I will guide the assessment of training programs for faculty at NC State to build more meaningful mentoring relationships with students and teach faculty about the implications of mental health on graduate student success. The research study held four primary hypotheses:

- Graduate students who have more diverse mentoring and advising relationships will have lower rates of anxiety and feelings of impostorism when compared with students who do not have strong mentoring and advising relationships.
- Graduate students who report that their advisor/mentor talks to them about the importance of mental health will have lower rates of anxiety, feelings of impostorism, and burnout than graduate students who do not indicate that their advisor talks with them about mental health concerns.
- Women and gender non-conforming individuals in graduate training programs will have higher ratings of anxiety and feelings of impostorism than their cisgender male counterparts.
- Racially and ethnically diverse graduate students will have higher ratings of anxiety and feelings of impostorism than their white counterparts.

## Key quantitative findings

One hundred twenty graduate students participated in the research study. The findings from the study highlight that graduate students enrolled in educator preparation programs are experiencing anxiety and they desire systemic change to promote a more inclusive graduate program experience. Graduate students' relationships with their advisor appear to have an effect on their anxiety, and participants reported qualitatively there is room for growth in how their advisors provide them with support.

### **Graduate students report lower feelings of impostorism and anxiety when they align with their advisors' research identity.**

Results indicate that graduate students who have a greater sense of rapport with their advisor have lower rates of anxiety. Additionally, when graduate students have higher feelings of theoretical alignment with their advisor, they report lower ratings of impostorism and anxiety. The results align with Cohen and McConnell's (2019) findings that perceptions of high-quality mentorship correspond with less frequent impostor fears.

### **There was not a significant relationship between race and anxiety and impostorism.**

However, there were no significant differences between participant-reported race and feelings of anxiety, nor between race and impostorism. These findings support Nadal et al.'s (2021) research theorizing that having a strong racial identity can serve as a protective factor against impostorism and anxiety and future research should further explore racial identity and impostorism in academia.

### **Graduate students who reported having more caring and understanding advisors did not report lower feelings of impostorism or anxiety.**

There was not enough quantitative evidence to support a relationship between the caring subscale on the AWAI and feelings of impostorism and anxiety. These results are in contrast to previous research by Cohen and McConnell (2019) and Cowie et al. (2018), and future research should examine the factors that affect the quality of mentoring relationships and training of mentors and graduate advisors.

### **Women and gender non-conforming graduate students did not report higher ratings of anxiety or impostorism.**

This does not support previous research from Cowie and colleagues (2018) or research from Wang, Sheveleva, and Permyakova (2019). Previous research has identified that women and gender minority individuals demonstrate more vulnerability to academic stress and feelings of impostorism. As education is typically a field dominated by women, perhaps women-identifying graduate students feel a greater sense of belonging and therefore do not exhibit greater feelings of anxiety or impostorism than men.

## Key qualitative findings

### **Advisors provide graduate students with a variety of support.**

Participants responded that their advisor provides them with encouragement, feedback on written work, research, academic, and professional support. The most frequently reported type of emotional support graduate students noted was “encouragement.”

### **Faculty advisors are not clear in their feedback nor accessible to their students.**

Individuals reported they would appreciate more guidance and direction from their advisors. They also noted they wish their advisors were more open to their ideas and more encouraging. Graduate students wished their advisor was more proactive in reaching out to schedule meetings, had more meetings, and be more responsive to email communication. This feedback was echoed not only for academic progression through programming but also for supporting graduate students’ mental health as well.

### **Graduate student participants want more structure, supervision, and clearer expectations from their advisors.**

Participants reported feeling misunderstood and lacking fundamental knowledge about program requirements. One participant noted they would like their advisor to “Actually advise me on the tasks of completing graduation research requirements, since I am unfamiliar with that process.”

**Graduate students find support in others.** The most common sources of support were found in others, with graduate students reporting finding support in colleagues in their program most frequently, followed by family, friends, and their partner(s). Graduate students also noted finding support in mentors, who were sometimes identified as their advisor but at other times were identified as other faculty.

### **Self-care is discussed in programming but is not a priority.**

Programmatically, the most common response from graduate students was that self-care is “discussed” by professors, in emails, or in general messaging. However, almost as many responses indicated that self-care is not prioritized or discussed. The ways that graduate students were able to identify that self-care was promoted was through wellness days and individual professors’ efforts, whether through discussions in class or flexibility with assignment due dates.

## Summary, Recommendations, and Next Steps

This research marks the first step in understanding the needs graduate students identify as part of their programs. Graduate students identified needing more support from their advisors. Participants also recognized the need for programs to make more concerted efforts to promote self-care and address biases that uphold systemic racism.



**Graduate students should take advantage of NCSU Counseling Center resources.** The Counseling Center offers group counseling, teletherapy, off-campus referrals, and workshops. The Counseling Center website also contains a central hub for mental health resources for African American, Asian American, and Native American students in addition to their resource lists for LGBTQIA+ students and disability support.



**Graduate students should practice expectation-setting with faculty advisors.** Graduate students may consider creating a resource to share with their advisors on expectations they have as graduate students. These expectations may include a schedule of meetings, how they like to give and receive feedback, and what kinds of support they expect from their advisor (e.g., moral support, support with networking). The university may consider providing training to allow members of the community the opportunity to strengthen their skills in self-advocacy.



**Graduate students should build community within programs.** Graduate students report better mental health and academic outcomes when they feel like they have a sense of community (Cohen & McConnell, 2019). Responses from the current study echo this finding, as many participants noted they find support in their colleagues. Graduate students may consider formalizing their communities through student groups and marketing these groups to both full- and part-time students. These communities can provide a space for individuals to share resources, as well as provide an opportunity for collaboration or commiseration.





**The University should provide clarity around wellness days.** Participants noted that the wellness days were a way in which NCSU encouraged self-care. Participants also stated that the lack of clarity around the wellness days makes them more performative than helpful. The university should encourage a system of accountability to ensure that all NCSU community members feel empowered to practice self-care.



**The University should train more faculty on recognizing symptoms of mental instability.** NCSU offers the NC CARES student behavioral case management to provide comprehensive outreach, provide early intervention and behavioral assessments, and monitor student progress. NCSU may consider a more targeted marketing approach or incentive to encourage faculty to complete the training. Additionally, NCSU may consider offering more regular training or establishing a cohort model of practice for NC CARES and other programming to ensure faculty feel a sense of community in supporting their students.



**The University should standardize expectations at the programmatic and departmental levels.** Completing a graduate degree can feel isolating, in part due to the number of competing and ever-changing requirements within programs and departments. Departments should invest time into critically evaluating their degree requirements for both academic value and equity. Further, the university should continually assess the standards with which it evaluates the conferring of post-baccalaureate degrees to ensure that students are prepared with both the research and practical skills necessary to be successful in their chosen fields.

**Direction of future research and efforts.** This research highlights the first step in understanding the landscape of graduate student mental health and identifying key areas of improvement in advisor-advisee relationships. Next steps in the research include expanding the sample to include graduate students across disciplines. Additionally, the research team would like to evaluate the success of faculty training in reducing significant mental health concerns in the graduate student population. The research team is in the process of identifying funding sources to be able to continue this work to create lasting and systemic change in graduate student educational practices.

# PARTICIPANT DEMOGRAPHICS

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## Gender Identity

Our survey embraced gender diversity, with 75% of respondents identifying as Women, and 19.2% as Men. Additionally, 3.3% of participants identified as Non-binary/Third-Gender, a testament to our commitment to inclusivity and recognition of diverse gender identities.



## Race/Ethnicity

The majority, at 63.3%, identified as White, and Black/African American respondents accounted for 20%, while Asian individuals comprised 5.8% of the sample. Hispanic/Latino/a/x\* participants constituted 5%, and 3.3% of the respondents preferred not to respond. In a separate question of whether participants identified as Hispanic/Latino/a/x\*, 2.5% preferred not to respond.



## Graduate Program

Three-fourths of participants were enrolled in Doctoral degree programs, emphasizing a significant presence of individuals with higher education qualifications. Importantly, those enrolled in Master's Level degree programs or experience constituted 25% of the respondents. Looking into credit statuses, 66.7% were full-time students, and 33.3% were part-time, reflecting the engagement of a substantial academic population.

Most participants were enrolled in programs related to Education Leadership, Policy, and Human Development (32.5%). Just over one-fifth of participants were enrolled in STEM Education programs (20.8%), and nearly 17% of participants are getting postsecondary degrees in Teacher Education and Learning Sciences (TELS). The remaining participants were enrolled in Counselor Education, School Psychology, and non-education STEM programs. A minority of participants (4.2%) indicated they were enrolled in Education-related postsecondary degree programs, but did not specify their concentration or program.

# PROJECT OVERVIEW

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Annually, more educators are leaving the field than there are individuals to replace them. Teacher turnover is most prominent among beginner educators; within five years of teaching, anywhere between 40-50% of teachers will leave the profession (Dave, McClure, Rojas, de Lavalette, & Lee, 2020). The most common factor predicting teacher retention is teacher perceptions of health-related quality of life (Casely-Hayford, Bjorklund, Bergstrom, Lindqvist, & Kwak, 2022; Dave et al., 2020). As educators are faced with a barrage of daily challenges (e.g., economic disparity, language barriers, increased content demands), they may not be adequately prepared in their graduate training programs to sustain these challenges in the long term. Thus, it is imperative to explore the extent to which graduate training programs are providing students with adequate mental health support to combat these factors that lead educators to burnout and leave the profession.

The upcoming generation of professionals are experiencing more severe anxiety, depression, and psychological distress at higher rates than older generations, and graduate students are at an increased risk for mental health concerns (Bernstein, LeBlanc, Bentley, Barreira, & McNally, 2021). One of the more common mental health concerns in graduate students associated with anxiety and burnout is the impostor phenomenon (IP). While IP is prevalent among graduate students, rates among racial, ethnic, and gender minority groups are even higher (Leach, Nygaard, Chipman, Brunsvold, & Marek, 2018; Cohen & McConnell, 2019; Wang, Sheveleva, & Permyakova, 2019). Long-term effects of IP can lead to increased anxiety and depression, emotional exhaustion, avoidant behaviors, and burnout (Wester, Vaishnav, Wachter Morris, Austin, Stickl Haugen, Delgado, & Umstead, 2021). Some researchers have even suggested that the academic culture can generate feelings of impostorism, through colleagues questioning expertise, the pressure to publish and produce research, the comparison with other colleagues, and the inability to internalize feelings of success (Hutchins & Rainbolt, 2017).

Researchers Cohen and McConnell (2019) examined graduate school program environments and the factors that contributed to greater or lesser feelings of impostorism in students. They found that perceptions of high-quality mentorship and reports of decreased competition and isolation corresponded with less frequent impostor fears in graduate students (Cohen & McConnell, 2019). The current research study seeks to expand upon this research by focusing on graduate students in education-related fields to further understand the interactions between the quality of mentoring relationships and feelings of anxiety and impostorism with student productivity and progress toward graduation. The study places special emphasis on racially and ethnically diverse graduate students, who often face compounded stressors in the academic environment.

It is necessary to take a critical lens to training programs to reflect on educator preparation to ensure the next generation of educators will be well-suited to remain in the field of education long-term. The purpose of this initial correlational mixed-methods research study was to further understand the relationships between feelings of impostorism in graduate students across a variety of fields, with a core focus on the fields of education and STEM, and quality of mentorship with faculty advisors. This study is the first phase in understanding how anxiety in graduate students, quality of mentorship, and a focus (or lack thereof) on mental health within programs affects graduate student feelings of competence, quality of work, and time to graduation. The results from Phase I will guide the development of training programs for faculty at NC State to build more meaningful mentoring relationships with students and teach faculty about the implications of mental health on graduate student success. The research study held four primary hypotheses:

- **Hypothesis 1:** Graduate students who have more diverse mentoring and advising relationships will have lower rates of anxiety and feelings of impostorism when compared with students who do not have strong mentoring and advising relationships.
- **Hypothesis 2:** Graduate students who report that their advisor/mentor talks to them about the importance of mental health will have lower rates of anxiety, feelings of impostorism, and burnout than graduate students who do not indicate that their advisor talks with them about mental health concerns.
- **Hypothesis 3:** Women and gender non-conforming individuals in graduate training programs will have higher ratings of anxiety and feelings of impostorism than their cisgender male counterparts.
- **Hypothesis 4:** Racially and ethnically diverse graduate students will have higher ratings of anxiety and feelings of impostorism than their white counterparts.

# Methodology

**NSRP Submission Process.** This research study was made possible by the North Carolina State University (NCSU) Non-Laboratory Scholarship Research Support Program (NSRP). NSRP is a collaborative program between the Office of Research and Innovation and the Office of the Executive Vice Chancellor and Provost designed to support scholarship and research in disciplines not driven by instrument-dependent, lab-based research. The Principal Investigator (PI) submitted the proposal to NSRP in September 2022 and was notified of the acceptance in October 2022.

**Timeline of Research.** Upon learning of the acceptance of the proposal to the NSRP, the PI began the Institutional Review Board (IRB) application process. This research study was approved by the NCSU Institutional Review Board (IRB) office. The initial proposal was submitted on November 23, 2023, and designated as Exempt on January 17, 2023. The PI submitted an IRB amendment to update data collection processes on February 22, 2023, and was approved by the NCSU IRB office on February 27, 2023.

Data collection began in February, through partnerships built between the PI and NCSU Graduate Student Association (GSA). Survey distribution through the GSA is detailed further below. Most surveys were completed in March after the IRB amendment was approved. Data collection was completed and the survey was closed in April.

Analysis and reporting took place over the summer months. Qualitative coding of short answer responses was completed via coding using Atlas.ti. Quantitative analyses were computed utilizing R. More comprehensive descriptions of qualitative and quantitative analyses are detailed below.

## Survey

The survey was distributed to graduate students at North Carolina State University via a variety of methods. The study was registered through the NCSU research office, which then provided the principal investigator with a sample of participants who met the outlined inclusion criteria. Sample participants were invited to participate via Qualtrics email distribution on March 2, 2023. Reminder emails were sent on March 6, March 13, and March 20, 2023. Of the 288 individuals included in the sample, 100 individuals started the survey and 84 completed the survey, with a response rate of 35% and a completion rate of 84%.

The research team formed a partnership with the Graduate Student Association (GSA) before beginning the research. This mutual relationship asked the GSA to distribute the anonymous survey link to their membership, and the research team would provide the GSA with high-level findings of results upon completion of the study. The GSA included the anonymous survey link in its monthly newsletter in February 2023.

The other primary method of participant recruitment was completed through individually emailing professors in relevant fields informing them of the opportunity for their students to participate in research. Forty professors in the College of Education and College of Humanities and Social Sciences were contacted in March. Recruitment language can be found in Appendix B. Between efforts between the GSA and support from faculty, 40 surveys were completed via an anonymous survey link.

## Demographic Information

To gain an understanding of study participants, multiple demographic items were included at the beginning of the survey. Participants were asked to provide their age, select their gender identity, and indicate their race and ethnicity. Participants were asked whether they were Master's or Doctoral level students and their enrollment status (e.g., part-time, full-time).

Additionally, participants were asked about their progress in their program as well as their scholarly productivity (e.g., applying for grants, and submitting to peer-reviewed journals). Participants were also asked about the status of their program, whether their programs were primarily online, in person, or a combination of the two.

## Qualitative Questions

The participants were asked a series of open-ended questions to learn more about their experiences in graduate school. More specifically, participants were asked about their graduate advisor's strengths and areas for improvement, their definitions of success, coping strategies, and their support systems. Participants were also asked about systemic factors such as faculty supporting mental health, equity in graduate programs, and ways mental health is talked about or promoted in their respective graduate programs.

## Advising Relationship Questions

Participants were asked how often they meet with their faculty advisor, with options ranging from once a semester to weekly. Participants were also asked how meetings with their advisor are typically held (e.g., Zoom, meeting length, set agenda).

The quality of advising relationships was assessed using the Advisory Working Alliance Inventory (AWAI). The AWAI was developed by Schlosser, Lewis, Gelso, and Charles (2001). The AWAI includes three subscales: (a) rapport, (b) apprenticeship, and (c) identification-individuation.

The **rapport subscale** items focus on the quality of the relationship between graduate students and their advisor, and includes items such as "My advisor offers me encouragement for my accomplishments." The rapport subscale includes eight items that are reverse-scored during analyses (e.g., "My advisor is not kind when commenting about my work." Cronbach's alpha for the rapport subscale in the current sample was 0.94.

The **apprenticeship subscale** measures to what level the graduate student feels as though their advisor facilitates professional development. The apprenticeship subscale includes items such as, "My advisor helps me recognize areas where I can improve." The apprenticeship subscale includes three reverse-scored items (e.g., "My advisor does not educate me about the process of graduate school." Cronbach's alpha for the apprenticeship subscale in the sample was 0.93.

The **identification-individuation subscale** measures the level of enmeshment or theoretical alignment between the graduate student and their advisor. All items on the identification-individuation subscale are reverse scored. Examples of items on this subscale include: "I do not want to be like my advisor," and "I feel like my advisor expects too much from me." The Cronbach's alpha on this subscale in the sample for this study was 0.67.

## Clance Impostor Phenomenon Scale

The Clance Impostor Phenomenon Scale (CIPS) is a scale originally developed by Clance and Imes (1985) and is widely used as a brief 20-item measure to gauge an individual's feelings on feeling like a fraud. Examples of items include "I am afraid people important to me may find out I'm not as capable as they think I am," and "It's hard for me to accept compliments or praise about my accomplishments or intelligence." In previous studies using the CIPS with undergraduate and graduate students, there have been significant positive correlations between the CIPS and the Beck Depression Inventory and the CIPS and Zung Self-rating Anxiety scale (Fraenza, 2016; McGregor, Gee, & Posey, 2008). Recent research has found the CIPS to have strong internal consistency, with Cronbach alpha ranging from .85 to .96 (Mak, Kleitman, & Abbott, 2019). In the present study, the Cronbach alpha for the sample was 0.94. The CIPS is scored by taking the sum of the 20 Likert-scale items. Higher scores indicate stronger feelings of impostorism; if the sum of scores falls in a range of 41-60, an individual is experiencing moderate feelings of impostorism. Scores that fall higher than 80 indicate an individual often has intense feelings of impostorism. The average CIPS score for the sample in this study was 61.98, SD=17.3.

## Multiculturally Sensitive Mental Health Scale

The multiculturally sensitive mental health scale (MSMHS) was developed by Chao and Green (2011) and was intended to measure the mental health and experiences of African Americans. The MSMHS was modified for this study to include inclusive language (i.e., modified "Being Black" to "Being a minority" in relevant items) and added a "not applicable/not a minority" option for relevant items such as "Being a minority, I was followed by salespersons while shopping."

Items are rated on a Likert scale from 1 (almost never happened to me) to 5 (almost always happened to me). The MSMHS has five factors in the complete measure (i.e., Racism/Discrimination, Depression, Well-being, Anxiety, Suicidal Ideation). For the current study, three of the five factors were included (i.e., Racism/Discrimination, Well-being, Anxiety). Items on the Racism/Discrimination factor include items such as “My teachers give me poor grades because of my race.” The Cronbach’s alpha for the Racism/Discrimination subscale in the sample of this study was 0.92. Items on the Well-being subscale include items such as “I feel I am loved or wanted by family and friends,” and held a Cronbach’s alpha of 0.81 for the current study. Finally, the Anxiety subscale included items such as, “I tend to be anxious for no reason,” and “I tend to be nervous,” and held a Cronbach’s alpha of 0.90 for the sample in this study.

## Analyses

### *Quantitative Analysis*

All quantitative results were computed using R and RStudio. All quantitative analyses were independently computed by the Principal Investigator and an undergraduate research intern. To gain an initial understanding between anxiety and aspects of advising relationships, Pearson correlations were computed. The categories of gender were collapsed into two categories (i.e., men, women, and gender non-conforming) to conduct point-biserial correlations to examine the relationships between gender and feelings of impostorism and anxiety. Race categories were collapsed (i.e., white, non-white) to conduct a point-biserial correlation to examine the relationship between race and feelings of impostorism and anxiety. Independent sample *t*-tests were utilized to further explore differences between race and gender and feelings of impostorism and anxiety in graduate students. Results for each hypothesis are detailed further below.

### *Qualitative Analysis*

Qualitative responses were coded using Atlas.ti. Thematic analysis was used to identify themes and patterns among participant responses. Thematic analysis, broadly defined, is a method for analyzing qualitative data that entails searching across a dataset to identify, analyze, and report repeated patterns (Kiger & Varpio, 2020). Thematic analysis is beneficial when research seeks to understand experiences, thoughts, or behaviors across a dataset (Kiger & Varpio, 2020). The researchers utilized an eclectic modality of thematic analysis, with both an a priori and open coding structure based on predetermined themes in the qualitative items. A priori, developed before reviewing participant responses, were determined by items on the survey and included broader categories such as faculty support, coping strategies, self-care, and positive advisor behaviors. The “open coding structure” was intended to garner more granular and specific patterns of behaviors and experiences in participant responses. Examples of codes developed in the open coding structure include “definitions of success: professional” and “advisor improvements: accessibility.” All survey responses were independently coded by the Principal Investigator, a graduate research assistant, and an undergraduate research intern.



# **HYPOTHESIS 1**

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**GRADUATE STUDENTS WHO HAVE MORE DIVERSE MENTORING AND ADVISING RELATIONSHIPS WILL HAVE LOWER RATES OF ANXIETY AND FEELINGS OF IMPOSTORISM WHEN COMPARED WITH STUDENTS WHO DO NOT HAVE STRONG MENTORING AND ADVISING RELATIONSHIPS.**

## Quantitative Results

There was a significant negative relationship between feelings of impostorism and the identification-individuation subscale on the AWAI ( $r = -.1952, p = 0.046$ ). There was not a significant relationship across any other factor of advising relationships and overall feelings of impostorism. Though each relationship was reflective of the hypothesized direction (i.e., negative relationship between feelings of impostorism and healthy advising relationships), no other approached significance.

There were significant negative relationships between graduate student feelings of anxiety and rapport with their graduate advisor ( $r = -.2395, p = 0.016$ ), and graduate student feelings of anxiety and the identification-individuation subscale ( $r = -.1974, p = 0.049$ ). There were no other significant relationships between anxiety and aspects of the graduate advisor-advisee relationship. The correlation between anxiety and overall advisor-advisee relationship quality approached significance ( $r = -.19, p = 0.0583$ ).

Correlations between Total Impostorism and Dimensions of Advising Relationships

	Impostorism	Rapport	Apprentice	Identity	Caring	AWAI
1	1.00					
2	-0.084	1.00				
3	-0.089	0.766***	1.00			
4	-0.195*	0.620***	0.508***	1.00		
5	-0.111	0.525***	0.571***	0.377***	1.00	
6	-0.115	0.915***	0.945***	0.677***	0.626***	1.00

\* $p < .05$ ; \*\* $p < .03$ ; \*\*\* $p < .01$

## Qualitative Results

**Structure of Meetings with Advisors.** Graduate students were asked three questions about their interactions with their advisor for the researchers to get a better understanding of the typical advisor-advisee relationship. Participants were asked: (a) “What do your meetings with your advisor typically look like?”; (b) “What kinds of things does your advisor do well?”; and (c) “What would you like your advisor to do differently?” Participants were also asked to report how frequently they met with their advisor. Almost one-third of respondents indicated they meet with their advisor once a semester (30.9%). One-third of participants reported they meet with their advisor either once a week or once every other week (33.6%).

Most participants indicated they meet with their advisors via Zoom ( $n = 94$ ), and typically bring an agenda to their meetings ( $n = 48$ ). Of those who noted their meetings are structured or semi-structured with an agenda, the participants noted their advisors expect them to set and bring the agenda to meetings. The most frequently reported meeting lengths were 30 minutes and one hour. However, some participants noted their meetings with their advisor only last “a few minutes” while others noted that meetings with their advisor can last up to two hours. Of the participants who reported what topics they covered in their advisor meetings ( $n = 29$ ), 34% of graduate students noted they only meet with their advisor to discuss course requirements and scheduling. Other topics participants noted included dissertation progress or “different topics I may have questions about or need an opinion on.”

**Positive Advising Experiences.** When asked “what kinds of things does your advisor do well?,” participants were able to provide key insights into the quality of the advising relationship. Participants responded that their advisor provides them with emotional support ( $n = 58$ ), feedback on written work ( $n = 46$ ), research ( $n = 27$ ), academic ( $n = 23$ ), and professional support ( $n = 20$ ). The most frequently reported type of emotional support graduate students noted was “encouragement.” Interestingly, although the most frequently reported support graduate advisors provide to their advisees was emotional support, there were only 15 instances of advisors recommending graduate students take time for themselves or engage in self-care.

Some participants noted they view their advisor as a role model and recognize the value in the knowledge their advisor brings to meetings. Graduate students valued the experiences their advisor provides them, including both research opportunities and networking opportunities. There were only a few mentions of graduate advisors being good communicators with their advisees; only six individuals indicated their advisor was prompt in their responses to questions.

**Opportunities for Advisor Improvement.** When asked “What would you like your advisor to do differently?,” the most common response from participants was again related to support ( $n = 31$ ). Individuals reported that they would appreciate more guidance and direction, be more open to their ideas, and be more encouraging. The second most commonly reported advisor improvement was related to accessibility ( $n = 19$ ). Graduate students wished their advisor was more proactive in reaching out to schedule meetings, had more meetings, and were more responsive to email communication. This echoes the finding regarding positive advising experiences, as communication and availability were not noted as graduate advisor strengths.

**“He doesn’t really understand my research focus, and it’s clear it’s not really something that interests him. I wish he engaged with me more, as I find it hard to reach out to him since his responses are often much later and/or very brief.”**

Another key theme was that **graduate students would like their advisor to improve their communication and feedback.** Some participants reported that they would like their advisor to “listen better to my ideas,” while another noted they would like their advisor to “not gaslight during discussions.” Participants felt they would like more specific feedback from advisors on how to improve their research, as well as would like more guidance on navigating graduate school.

Similarly, **graduate student participants reported wanting more structure, supervision, and clearer expectations from their advisors.** Participants reported feeling misunderstood and lacking fundamental knowledge about program requirements. One participant noted they would like their advisor to “Actually advise me on the tasks of completing graduation research requirements, since I am unfamiliar with that process.”

**Participants would like more opportunities to participate in research without having the external pressure to publish.** Graduate students want more guidance on exploring grant opportunities, preparing for the profession post-graduation, and networking with other professors and experts. Students want to develop and learn, but are unaware of opportunities and are left to identify these experiences from other sources.

Despite the opportunities for improvement, about 20 individuals reported there is “nothing” they would like their advisor to do differently.

# HYPOTHESIS 2

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**GRADUATE STUDENTS WHO REPORT THAT THEIR ADVISOR/MENTOR TALKS TO THEM ABOUT THE IMPORTANCE OF MENTAL HEALTH WILL HAVE LOWER RATES OF ANXIETY AND FEELINGS OF IMPOSTORISM THAN GRADUATE STUDENTS WHO DO NOT INDICATE THEIR ADVISOR TALKS TO THEM ABOUT MENTAL HEALTH CONCERNS.**

## Quantitative Results

There is not enough evidence to support the hypothesis that graduate students who have more caring and understanding relationships with their advisors also have lower rates of anxiety and feelings of impostorism. Though the correlations were indicative of the hypothesized relationship, neither reached a level of significance. Pearson correlation between the AWAI caring subscale and the total impostorism score indicated a negative relationship ( $r = -.1107$ ,  $p > .05$ ). The relationships between the AWAI caring subscale and anxiety was also negative ( $r = -.0042$ ), but not statistically significant ( $p > .05$ ).

Correlations between Anxiety and Dimensions of Advising Relationships

	Correlation
Rapport	-0.2395**
Apprentice	-0.1335
Identity	-0.1974*
Caring	-0.0042
AWAI	-0.19

\* $p < .05$ ; \*\* $p < .03$ ; \*\*\* $p < .01$

## *Qualitative Results*

Participants were asked how they think their advisor can better support their mental health. Responses to this prompt mirrored how they feel their advisors can improve overall, however, 26 participants either don't need additional mental health support, their advisor supports their mental health, or they don't consider mental health support as part of their advisor's role. The most common response for supporting graduate student mental health was related to communication. Respondents noted they would like more frequent check-ins from their advisor and have meetings that are not solely focused on academics and research. Other responses included advisors providing them with resources and strategies, as well as acknowledging that graduate students need mental health support. Some participants noted that their advisors are beholden to their departments, and the issue is greater than what individuals can address through relationships.

**I don't think she can - the issues are systemic, not something she can address as an individual beyond what she has already done.**

# **HYPOTHESIS 3**

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**WOMEN AND GENDER NON-CONFORMING INDIVIDUALS IN GRADUATE TRAINING PROGRAMS WILL HAVE HIGHER RATES OF ANXIETY AND FEELINGS OF IMPOSTORISM THAN THEIR CISGENDER MALE COUNTERPARTS.**



## Quantitative Results

When looking at the relationship between gender (i.e., male, non-male) and feelings of impostorism, there was a significant point-biserial correlation ( $r = 0.208, p < .05$ ). There was also a significant difference between genders on feelings of impostorism ( $t(103) = -2.17, p = 0.032$ ).

Gender did not have a statistically significant relationship with ratings of anxiety ( $r = 0.1577, p > 0.05$ ). There was a statistically significant relationship between gender and “I tend to be nervous,” with women and gender minority individuals indicating higher feelings of nervousness ( $r = 0.223, p = .0257$ ).

Point Biserial correlation between Gender\* and Impostorism and Anxiety

	Correlation
Gender and Impostorism	0.208*
Gender and Anxiety 1	0.1981*
Gender and Anxiety 2	0.1278
Gender and Anxiety 3	0.1635
Gender and Anxiety 4	0.0318
Gender and Anxiety 5	0.129
Gender and Anxiety 6	0.1305
Gender and Average Anxiety	0.1577

\* $p < .05$ ; \*\* $p < .03$ ; \*\*\* $p < .01$

\*Women and gender non-conforming individuals were collapsed into one category.

# **HYPOTHESIS 4**

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**RACIALLY AND ETHNICALLY  
DIVERSE GRADUATE  
STUDENTS WILL HAVE  
HIGHER RATINGS OF  
ANXIETY AND FEELINGS OF  
IMPOSTORISM THAN THEIR  
WHITE COUNTERPARTS.**

## Quantitative Results

There was a not significant relationship between race and feelings of anxiety overall. However, there were significant point-biserial correlations between race and feeling impatient ( $r = -0.211, p < 0.05$ ) and race and feeling pressured or stressed ( $r = -0.244, p < 0.05$ ). There were no significant differences between White and non-White participants in their overall anxiety scores ( $t(98) = 1.48, p > 0.05$ ).

There was not a significant relationship between race and impostorism, using a point-biserial correlation ( $r = -0.05, p > .05$ ). Nor was there a significant difference between white and non-white participants on total feelings of impostorism ( $t(103) = 0.51, p > 0.05$ ).

Point Biserial correlation between Race\* and Impostorism and Anxiety

	Correlation
Race and Impostorism	-0.0502
Race and Anxiety 1	-0.0513
Race and Anxiety 2	-0.0956
Race and Anxiety 3	-0.0429
Race and Anxiety 4	-0.2108*
Race and Anxiety 5	-0.1001
Race and Anxiety 6	-0.2439**
Race and Average Anxiety	-0.1471

\* $p < .05$ ; \*\* $p < .03$ ; \*\*\* $p < .01$

\*Race was collapsed into two categories: White and non-White.

## *Qualitative Results*

Participants were asked to discuss the initiatives to promote equity within their graduate program. The most common response from participants was that they were unsure of efforts within their program (n = 31). The second most frequent response was that equity was discussed through coursework and specific courses (n = 26). Participants also noted that there are seminars, task forces (n = 11), and initiatives to promote diversity, equity, and inclusion (n = 20). Though participants were able to identify practices that exist, a significant portion of responses to the prompt indicated that these competencies are not practiced at a programmatic or individual level.

**Although I have no difficulty understanding and communicating in English, I was denied a teaching position because English is my second language...They treated me as though I lacked teaching skills, going so far as to tell my advisor that I was unable to speak English, and subsequently demoting me to the position of teaching assistant for the course I had previously taught.**

# OTHER NOTABLE FINDINGS

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**Graduate student support systems.** In addition to asking participants about the quality of relationships with their advisors, graduate students were also asked about their support systems and how they cope with feelings of impostorism. The most common sources of support were found in others, with graduate students reporting finding support in colleagues in their program most frequently (n = 45), followed by family (n = 43), friends (n = 39), and their partner (n = 24). Graduate students also noted finding support in mentors, who were sometimes identified as their advisor but at other times were identified as other faculty (n = 24).

**One of my friends talked to me about impostor syndrome, and reading about it made me connect those feelings of systemic structures that allow that to manifest in individuals. That helped me a lot. To compartmentalize and define what is individual and what is systemic has been helpful. Therapy has also been beneficial, self-reflection, and journaling as well.**

To deal with feelings of impostorism, the most commonly reported strategy was utilizing reflective techniques. Participants also noted using words of affirmation to give themselves reminders of their worth and capabilities. Again, participants noted finding support from their peers to cope with feelings of impostorism. Participants also mentioned utilizing therapy, self-help books, and taking breaks from work to reset. A small number of participants noted they do nothing to cope with their feelings of impostorism, and instead “ignore whatever intrusive thoughts I have.”

**Self-care and promotion of self-care.** Participants were asked about ways in which self-care is promoted in their program as well as their personal methods of self-care. Programmatically, the most common response from graduate students was that self-care is “discussed” by professors, in emails, or general messaging (n = 40). However, almost as many responses indicated that self-care is not prioritized or discussed (n = 30). The ways that graduate students were able to identify that self-care was promoted was through wellness days and individual professors’ efforts, whether through discussions in class or flexibility with assignment due dates.

**It’s talked about, but not necessarily exemplified. I feel like a lot of things are reactionary and there isn’t any overarching intentional strategy in place to support students’ mental health and wellbeing.**

Interestingly, most participants noted they practice self-care through movement (n = 47). The next most commonly practiced self-care strategies included finding comfort in friends (n = 33), therapy (n = 29), family (n = 22), and setting clear boundaries (n = 22). Participants noted taking care of themselves through creative outlets, pets, reading, mindfulness, spirituality, and religion. Of the 99 responses to this question, participants were able to provide 256 strategies for self-care. Only six participants responded that they do not practice self-care or have unhealthy habits.

# DISCUSSION

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The pilot study was the first step in understanding the landscape of mental health for graduate students primarily in educator preparation programs. Results indicate that **graduate students who have a greater sense of rapport with their advisor have lower rates of anxiety.** Additionally, **when graduate students have higher feelings of theoretical alignment with their advisor, they report lower ratings of impostorism and anxiety.** This research further adds to Cohen and McConnell's (2019) findings that perceptions of high-quality mentorship correspond with less frequent impostor fears.

However, There was not enough evidence to support that graduate students with advisors who speak more with them about mental health, or have more "caring" advisors have lower rates of anxiety or impostorism. Future research should further examine the factors that affect the quality of mentoring relationships and the training of mentors and graduate advisors.

There was a significant negative relationship between race and some aspects of anxiety. There was not enough evidence to support that racially and ethnically diverse students reported higher rates of impostorism. When further exploring the differences between race and anxiety in the current sample, there were no significant differences between white and non-white graduate students on anxiety. Wester, Vaishnav, Wachter Morris, Austin, Stickl Haugen, Delgado, and Umstead (2021) found that feelings of impostorism did not differ across races, and Nadal, King, Sissoko, Floyd, and Hines (2021) theorize that having a strong racial identity may serve as a protective factor against feelings of impostorism and anxiety. Additional research should seek to further explore racial identity and impostorism in academia.

There was not enough evidence to support a relationship between feelings of impostorism and gender, nor anxiety and gender. This is in contrast to Cohen and McConnell's (2019) findings, who highlighted that women had greater feelings of impostorism. Cowie and colleagues (2018) also found that women and gender minority individuals demonstrate more vulnerability to academic stress and feelings of impostorism, as did Wang, Sheveleva, and Permyakova (2019). More research is needed to further understand why results from the current study differ from the previous research. As education is typically a field dominated by women, perhaps woman-identifying graduate students feel more confident of their belonging in education, and therefore do not exhibit significantly more feelings of anxiety or impostorism than men.

Despite the limited quantitative support for the hypotheses, participants reported valuable qualitative information about their relationships with their advisors and efforts to support graduate student mental health at individual and programmatic levels. Graduate students appear to admire their advisors for their knowledge base, professional networks, and research opportunities. Many participants recognized the pressures placed on their advisors to conduct research, publish, and ensure their advisees are on reasonable graduation timelines, however participants also noted these pressures then trickled down to their own experiences. Graduate students most often wished that their advisors were more easily accessible and reachable.

Participants wished their advisor would provide them with more encouragement and actionable feedback. Many participants noted they meet with their advisors briefly and infrequently, and meetings primarily centered around academic progress and coursework. While some graduate students noted their advisors provided them with moral support and encouragement, others stated that the programmatic limitations hindered advisors' ability to provide desired support.

While students recognized their programs' efforts to promote equity and inclusion in their practices, the overall sentiment from participants was that equity is not practiced or valued. Graduate students cited coursework and discussions as well as wellness days as the conductors for discussing mental health and equity. Many responses highlighted that in order for graduate student mental health and the true promotion of equity, policy changes would need to occur at the programmatic, departmental, and college levels.



# LIMITATIONS

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This research is one of the few studies examining the relationship between graduate student advising relationships and mental health phenomena like anxiety and impostorism. While the research provides valuable insights into the experiences and perceptions of individuals, it is not without its limitations. Future research should aim to address these limitations while expanding upon the knowledge gained to promote change within individual practices and systemic inequities.

## **Social desirability bias**

The survey relied on self-reported data and may have introduced social desirability bias. Individuals might have been inclined to present themselves in a favorable light, leading to an underreporting of experiences related to impostor syndrome. This bias could affect the accuracy of prevalence estimates and the depth of insights gained.

## **Cross-sectional data collection**

Capturing a snapshot of respondents' experiences at a specific point in time, employed a cross-sectional design. This inherently limits our understanding of the temporal dynamics of impostor syndrome and the potential changes in experiences over time. Longitudinal studies would be better suited to explore the trajectory and persistence of impostor feelings.

## **Online survey format**

The survey was conducted online, potentially excluding individuals without internet access or those who are less comfortable with digital platforms. This limitation might impact the inclusivity and diversity of the participant pool.

## **Sample demographics**

The sample for the current study represented 1.3% of the graduate students enrolled at the University. Therefore, the sample is not representative of all graduate students at this university, let alone graduate students at other universities. Though the research centered on graduate students in educator preparation fields, future research should seek to expand the intended degrees of future participants to better understand the landscape of graduate student mental health and advising relationships.

# OPPORTUNITIES FOR FUTURE RESEARCH

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Future research should continue to build upon the pilot study to garner a better understanding into the graduate advisor-advisee relationship in the field of education as well as other high-pressure careers. This research lays the groundwork for the exploration of mental health of graduate students across contexts, including other universities, pre-practice, and the intersection of personal and academic identity. Future research may include the examination of other demographic characteristics or life experiences that may influence whether an individual is more or less likely to experience anxiety or impostorism. Additionally, future research may consider the intersection of identity and longitudinal research.

## **Educational and organizational contexts**

Continuing to explore how impostor syndrome affects graduate educational and workplace environments is vital. There is a need for future research on the impacts of educational relationships such as advisors and advisees on graduate student mental well-being. Examining the factors that define quality mentoring relationships could be beneficial in supporting faculty working with graduate students. Research with a larger sample size, expanding to other educational fields, and including these predictors on educational achievement and academic recognition such as graduate GPA and number of publications could provide further support in reimagining the role advisors play for graduate students and the mental health support systems available to graduate students.

## **Intersectionality and marginalized groups**

Future research should focus on the intersectional experiences of graduate students' mental health of individuals from marginalized groups. Understanding how factors such as race, gender, sexual orientation, and socioeconomic status interact with advisor relationships, and feelings of anxiety or impostorism can provide insights into unique challenges and effective interventions for these populations. Academia is traditionally older, white, and male (National Center for Education Statistics, 2023), and excluding diverse voices stifles creativity and innovation (McGee, 2020). Ensuring academia evolves to include and celebrate diverse voices by understanding the unique experiences of marginalized individuals may improve not only student mental health outcomes but research and innovation outcomes as well.

## **Family and peer dynamics**

The current study centered around graduate student relationships with their faculty advisor and feelings of impostorism and anxiety. Through qualitative responses, it was evident that graduate students rely on social support for handling the pressures of graduate school and as a form of self-care. Future research may seek to explore the promotional and limiting factors of social support systems in the graduate student experience. Previous research has shown that graduate students who have an understanding social support system experience fewer mental health concerns (Nadal et al., 2021; Cohen & McConnell, 2019), and additional research could delve into how familial expectations, social comparisons, cultural standards in family systems for students, and multiculturally diverse forms of peer interactions contribute to the graduate student mental health outcomes.

## **Longitudinal studies**

Conducting longitudinal studies will provide a deeper understanding of the dynamic nature of graduate mental health and impostor syndrome over time. Following individuals' experiences and perceptions in multiple periods of time could uncover patterns, triggers, and changes in impostor feelings, as well as potential factors that contribute to its persistence or reduction. Additionally, longitudinal studies allow for a deeper understanding of mindset shifts among graduate students and faculty advisors alike.

# NEXT STEPS AND RECOMMENDATIONS

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This research highlights the first step in understanding the landscape of graduate student mental health and identifying key areas of improvement in advisor-advisee relationships. Next steps in the research include expanding the sample to include graduate students across disciplines. Additionally, the research team would like to identify or develop a universal mental health training program for faculty advisors to participate in to be able to better support their advisees' mental health concerns. The research team is in the process of identifying funding sources to be able to continue this work to create lasting and systemic change in graduate student educational practices.

This research marks the first step in understanding the needs graduate students identify as part of their programs. Graduate students identified needing more support from their advisors. Participants also recognized the need for programs to make more concerted efforts to promote self-care and address biases that uphold systemic racism. The following recommendations can be divided into two broad categories: individual recommendations for graduate students to advocate for themselves, and recommendations for faculty advisors and departments to implement positive changes for their students.

# RECOMMENDATIONS FOR STUDENTS

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Graduate students are being pulled in a variety of directions, with pressures from programs, careers, family, and friends. NC State provides resources for mental health support, but identifying appropriate support or reaching out for help can often feel overwhelming. If a student is in crisis, they should seek immediate medical attention or contact the Suicide and Crisis Lifeline (dialing 988 or texting HOME to 741741). Graduate students can advocate for their mental health and wellbeing by taking advantage of campus resources, practice setting expectations with faculty, and bolstering a sense of community within their programs.

## Take advantage of NCSU Counseling Center Resources



Students may find it beneficial to explore the available resources at the college level if they are experiencing mental health concerns. The Counseling Center offers group counseling, teletherapy, off-campus referrals, and workshops. The virtual three-session Anxiety Toolbox workshop may be beneficial for students who may be experiencing anxiety for the first time and need coping skills to manage their symptoms. The Counseling Center website also contains a central hub for mental health resources for African American, Asian American, and Native American students in addition to their resource lists for LGBTQIA+ students and disability support.

## Practice expectation-setting with faculty advisors



To bolster their relationship with their faculty advisors, graduate students may consider creating a resource to share with their advisor on the expectations they have as graduate students. These expectations may include a schedule of meetings, how they like to give and receive feedback, and what kinds of support they expect from their advisor (e.g., moral support, support with networking). The university may consider providing training to allow members of the community the opportunity to strengthen their skills in self-advocacy.

## Build community within programs



Graduate students report better mental health and academic outcomes when they feel like they have a sense of community (Cohen & McConnell, 2019). Responses from the current study echo this finding, as many participants noted they find support in their colleagues. Graduate students may consider formalizing their communities through student groups and marketing these groups to both full- and part-time students. These communities can provide a space for individuals to share resources, as well as provide an opportunity for collaboration or commiseration.

# RECOMMENDATIONS FOR DEPARTMENTS

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North Carolina State University has resources available to students and faculty, but there are ways to incrementally improve student support and learning. In September 2023, NC State announced a partnership with the JED Foundation to expand student mental health support (University Communications). Though the next four years will be a learning process for NC State leadership, below are recommendations to improve support NC State already has in place.



## **Provide clarity around wellness days**

Participants noted that the wellness days were a way in which NCSU is encouraging self-care. However, participants also stated that the lack of clarity around the wellness days makes them more performative than helpful. They noted professors schedule readings or assignments that will be due immediately after wellness days. The university should encourage a system of accountability to ensure that all NCSU community members (e.g., undergraduate students, graduate students, faculty, SHRA employees) feel empowered to practice self-care.



## **Train more faculty on recognizing signs of mental instability**

NCSU offers the NC CARES student behavioral case management intended to provide comprehensive outreach and consultation, provide early intervention and behavioral assessments, and monitor student progress. This is an excellent practice that should continue to be expanded. NCSU may consider a more targeted marketing approach or incentive to encourage faculty to complete the training. Additionally, NCSU may consider offering more regular training or establishing a cohort model of practice for NC CARES and other programming to ensure faculty feel a sense of community in supporting their students.



## **Standardize expectations at the programmatic and departmental levels**

Completing a graduate degree can feel isolating, in part due to the number of competing and ever-changing requirements within programs and departments. Therefore, departments should invest time into critically evaluating their degree requirements for both academic value and equity. Further, the university should continually assess the standards with which it evaluates the conferring of post-baccalaureate degrees to ensure that students are prepared with both the research and practical skills necessary to be successful in their chosen fields. Maintaining practices for posterity's sake can lead to confusion and a sense of mistrust and potentially hinder the passion for learning and excellence graduate students strive for.

# RESEARCHER POSITIONALITY

## **ALICIA V. FISCHER, PH.D.**

I was born in New York City and raised in Connecticut. I grew up understanding the dichotomy of wealth and lack thereof, and my early interests centered on supporting homeless and highly-mobile youth as well as those with significant mental health challenges. My early career research focused on anxiety in high-stakes testing scenarios for high schoolers. My dissertation examined the concordance between caregivers and transition-aged youth (e.g., entry to middle school, entry to high school) on bullying and victimization behaviors. I am thrilled to have had the opportunity to expand my research in the field of mental health with an under-studied population.

My research has been influenced by not only personal experiences but also guided through training at The Pennsylvania State University. I often utilize an ecological approach to research, taking time to understand how each of an individual's systems interact and influence one's experiences. My doctoral training relied on a scientist-practitioner model, focusing heavily on a cognitive-behavioral approach to working with students. I often use this framework when approaching research, assessing which antecedents may be influencing participant cognitions and behaviors under given circumstances.

While this research is a first step in understanding the landscape of mental health and graduate student relationships with advisors, I recognize that my own biases and beliefs have influenced the methodology, analytic approaches, and interpretation of results. I note that my identity as a white woman and my history of mental health have influenced the hypotheses. Though I do not identify as a racial or ethnic minority, I seek to further understand the experiences of racial and ethnic minorities to promote systemic change for equity. I hope to amplify the voices of those who are often ignored in academia.

# RESEARCHER POSITIONALITY

## **VICTORIA ARDINES, B.A.**

I am Victoria Ardines, a first-generation college student originally born in Minneapolis, Minnesota, and raised in North Carolina. I identify as an Afro-Panamanian coming from a low-income single-parent home and a joyful background of immigrants. My mother was a WIC representative for the Mecklenburg County Department. Growing up in a multifaceted community, I acquired knowledge of intersectionalities between bi-cultural identities, heritage, and representation, which have consistently illuminated my approach to research.

As you read this study, all necessary parts are acquired by examining race and ethnic backgrounds intersecting with mental health and graduate schools. This study brings forth a lens of importance for those within minority backgrounds to date experiencing multiple viewpoints of mental health conditions and impostor syndrome. It is important to note the barriers individuals of underserved race and ethnic backgrounds endure within Higher Education that may have an internal impact, my positionality aims to produce research that is culturally responsive to graduate students or multicultural backgrounds in Higher Education and bring to life their experiences.

Furthermore, my cultural and economic background curated my understanding of these challenges including six years of research experience. This research with the best intentions provides a viewpoint of qualitative and quantitative research for Higher Education improvement to further support graduate students. In my research, I have perspectives while also recognizing the biases I have in all the work that I do. It has been a pleasure collaborating with this research and The Friday Institute Team.



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