



Mentorship, Community and Suffering: The Experiences of Non-Male Graduate Students in STEM



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GEMS The Gender, Equity, Media,
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Introduction

In the past 20 years, increased efforts have been made to include women in science, technology, engineering and mathematics (STEM) educational programs and careers. These actions have now raised the questions of whether women still experience gender discrimination within these disciplines. Studies have highlighted that women's enrollments in STEM post-secondary programs has been on the rise since the 1960s and that between recent engineering graduates, women are hired faster than men (Michaemore and Sassler, 2016; Osten, 2021).

However, other recent findings have demonstrated that women still experience gender discrimination, such as unfair treatment from others, such as being ignored in classrooms and offered fewer opportunities to collaborate on projects, which leads women to feel that there is a lack of a STEM-based community and sense that they do not belong in academic STEM spaces (Corneille, et al., 2018; Kong et al, 2020; Quadlin, 2018; Wang and Degol, 2017). As such, a new study is warranted to investigate gender discrimination within STEM programs.

Research Questions

1. What are the experiences of Non-Male Graduate Students in Science, Technology, Engineering and Mathematics
2. Do these students experience gender discrimination in their education?
3. How does gender shape the expectations non-male students in STEM have for the labour market?

Methodology

- Sample
 - 11 semi-structured interviews with non-male graduate students in STEM
- Recruitment
 - Personalized emails, snowball sampling, lab presentations

Findings

- Mentorship
 - Choosing STEM, and Professional Development
 - "I found when I was in undergrad, like, I had really positive experiences [with] TAs, it made a huge difference on me, like staying [in science]... I feel like if [my undergraduate students] have a positive... experience, then they're going to like, pay it forwards." (Christine, Science)
- Community
 - Collaboration and Inclusion, Belonging, Competitiveness and Exclusion
 - "I would love to support, in terms of like, just discuss [research and grad school] with someone... I notice that once you go to social events, no one really wants to communicate with new people... grad school is really interesting and really fun, but at the same time, it's really isolating." (Evelyn, Science)
- Subjective Suffering
 - Experiences have been better than what others have experienced
 - "I think [transgender women] would face even more judgement than me." (Max, Technology)
 - "In undergrad, I would feel like, 'oh, you're welcome here, but you're probably not going to be as good as us...'" (Kelly, Mathematics)

Conclusion

- Non-male graduate students in STEM still experience gender discrimination, but downplay their experiences
- Non-male students value mentorship and community as opportunities to learn and support fellow graduate students
- Policy Considerations
 - Promotion of mentorship opportunities
 - More connections between undergrads and Teaching Assistants
 - Increase collaboration opportunities between grad students, grad students and professors
 - Changing STEM culture through collaboration, respect and trust

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