



Mental health challenges and experiences for Black and Latinx students in STEM and SBE doctoral programs

Megan Grunert Kowalske

Department of Chemistry and the Mallinson Institute for Science Education

ABSTRACT

This longitudinal, qualitative study explored and critically interrogated how the culture, climate, and structure of graduate education impacted the mental health of Black and Latinx graduate students as they completed doctoral degrees at primarily White institutions (PWIs). Recent research has shown that graduate students are substantially more likely to have mental health challenges than the U.S. population as a whole. Students from historically underrepresented groups face many challenges on the path to degree completion and are likely to be at risk for a higher incidence of mental health challenges. This research project followed 31 Black and Latinx graduate students at three different Midwestern PWIs to understand their experiences with mental health as they progressed through their STEM and SBE doctoral programs. Using critical race theory and constructivist grounded theory analysis perspectives, we explored the incidence, timing, and factors that impacted students' experiences of mental health issues, with a critical focus on departmental/program structure and power dynamics. It is clear that ongoing research into the experiences of graduate student with mental health issues is urgently needed in order to support graduate students, provide appropriate resources, and more critically, to identify and address the cultural and institutional environments that exacerbate and perpetuate the experience of mental health challenges for graduate students. Initial findings indicate that mental health challenges are exacerbated by a lack of social support, solo status, and aversion to seeking out professional help due to cultural stigma or lack of diverse counselors. This work takes important first steps toward understanding mental health among Black and Latinx doctoral students at PWIs.

INTRODUCTION

High prevalence of mental health challenges for graduate students (Levecque, et al., 2017; Smith & Brooks, 2015; Sverdlik & Hall, 2019; University of California, Berkeley Graduate Assembly, 2014; Woolston, 2017)

Mental health needs exacerbated by financial stresses, strained advisor relationships, and lack of social support networks (Hyun, et al., 2006)

Graduate students six times more likely to suffer from anxiety and depression than general population (Evans, et al., 2018)

Anxiety and depression symptoms substantially higher for cis-women and transgender/gender-nonconforming students than cis-men students (Evans, et al., 2018)

Students from marginalized backgrounds or othered identities are more likely to struggle with advisor relationships (Bryson & Kowalske, 2021) and social support networks (Tullis & Kowalske, 2021)

THEORETICAL PERSPECTIVES

- Critical Race Theory (Crenshaw, Gotanda, Peller, & Thomas, 1996; Delgado & Stefancic, 2017)
- Intersectional Feminism (Collins, 1990)
- Constructivist Grounded Theory (Charmaz, 2006)

RESEARCH QUESTIONS

- What mental health challenges do doctoral STEM students from underrepresented backgrounds face?
- How do the unique experiences and intersecting identities of graduate students from underrepresented backgrounds contribute to their mental health?
- How do departmental structures and power dynamics impact the experiences of mental health challenges?

PROJECT BACKGROUND

Longitudinal, mixed methods design

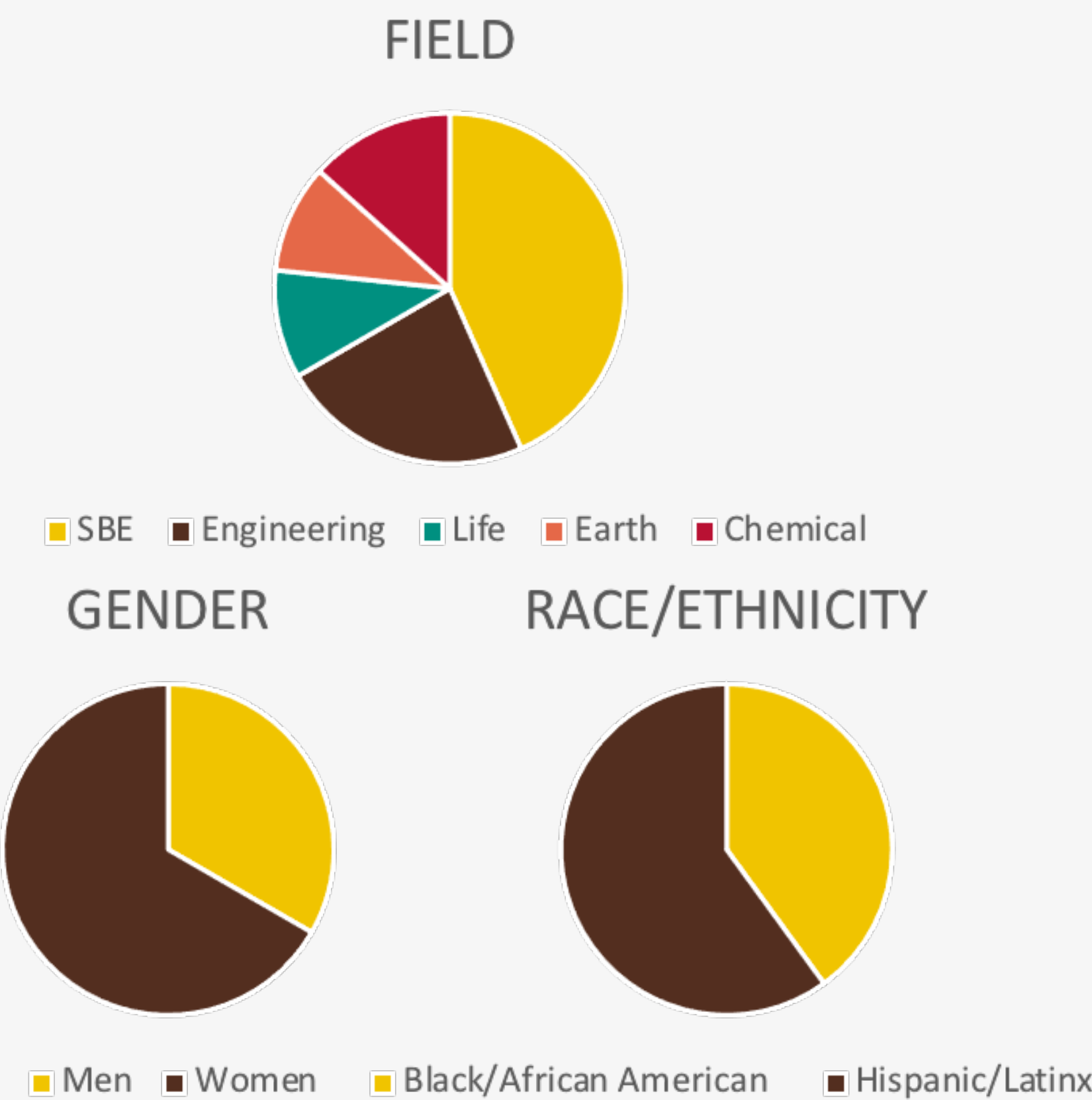
Students from underrepresented minority groups

- Enrolled in STEM/SBE PhD programs
- Three different predominantly White institutions (PWIs)
- First or second year of program at start of study

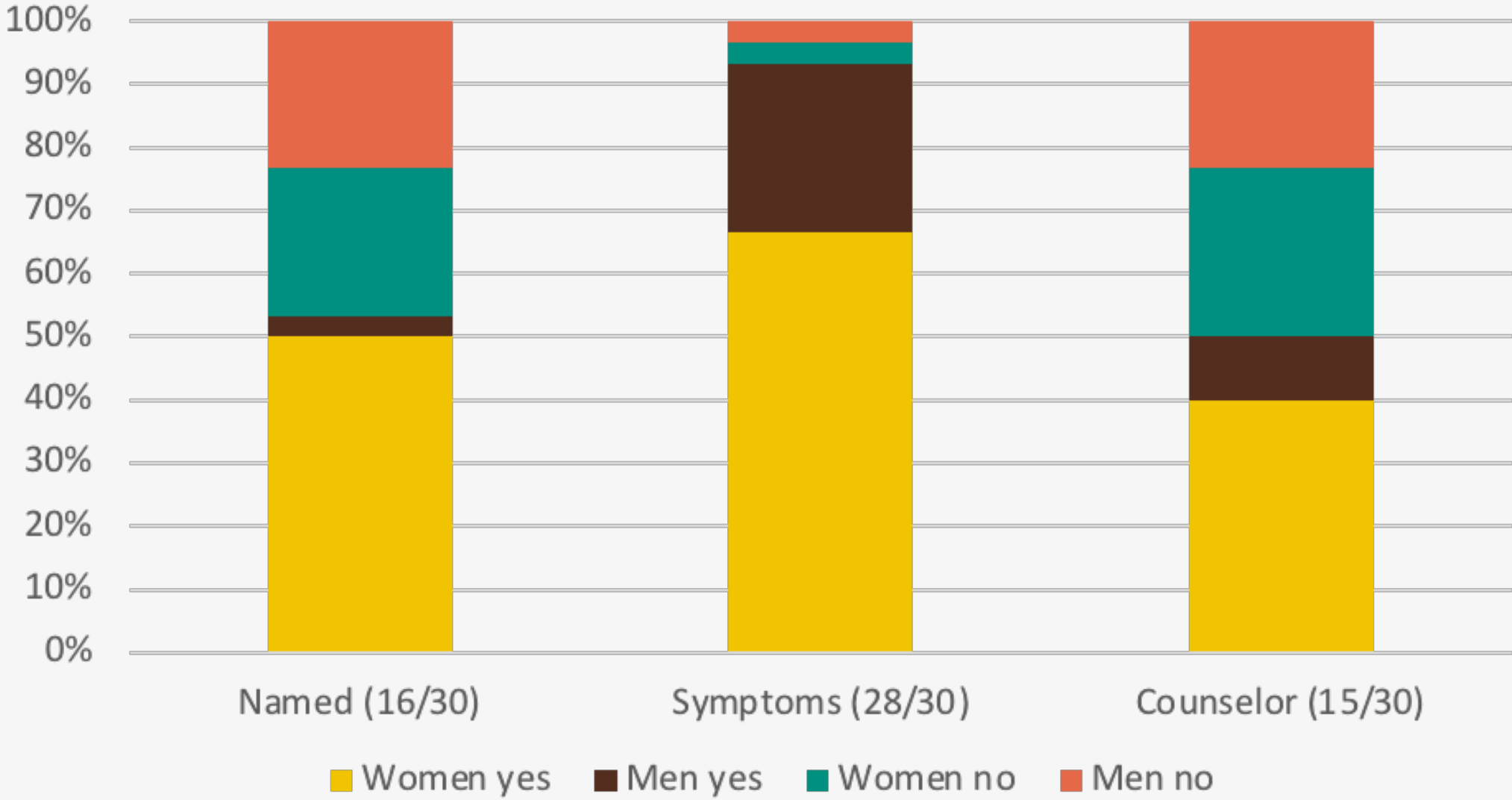
STUDY DESIGN

	Spring 2015	Fall 2015	Spring 2016	Fall 2016	Spring 2017	Fall 2017	Spring 2018
Survey							
Interview							
Social Networking							

PARTICIPANTS



OVERALL OCCURRENCE OF MENTAL HEALTH CHALLENGES



DIRECT REFERENCES TO NAMED MENTAL HEALTH CHALLENGES

Nicole: I've been clinically depressed since I'm 16, so that is something I've carried for a while. And these things exacerbate it; it makes it a lot worse. But it helps to know that I'm not the only grad student, it's actually a really high percentage of grad students go through this. And me having a prior condition doesn't help, but knowing that even people who haven't had prior conditions do struggle with depression and all that, it makes me feel not alone.

REFERENCES TO SYMPTOMS THAT WOULD INDICATE MENTAL HEALTH CHALLENGES

Erika: I think I always go through stress, and I don't think I know how to deal with the stress. I think I tend to, when I'm stressed out, I just tend to be in a bad mood and be by myself; not talk to anyone, and I feel like that's happened this past two months where I'm in lab and I don't talk to anyone because I just want to finish and I feel like I don't have time to grab coffee with anyone, I don't have time too because I'm just so stressed out about the meeting, I'm stressed out about finding a job. I have an interview this weekend in San Diego, so I'm stressed out about that and like trying to make sure – so I feel like I just isolate myself, which is not a good thing, but that's – I don't sleep very much because I always feel like I have to be awake because I can do more work when I'm awake.

Paul: Well, I don't know if I brought this up last time. But the large amount of stress bothers me. And sometimes I just think it would be better if I quit the program.

SEEING A COUNSELOR OR MENTAL HEALTH PROFESSIONAL FOR HELP

Ethan: I was very stressed with this past semester, but I actually went to counseling here. It helped a lot, both kind of with the tools that they kinda gave me, and then having been over that hurdle, they both – it's like, 'Okay, things are good now.'

Interviewer: So, it was mostly just to deal with all the extra stress that you had related to the examination?

Ethan: Yeah, and with the insecurity of, 'Am I gonna be able to do this?' Especially not knowing that this was.

IMPLICATIONS & FUTURE WORK

Imperative that we start to address aspects of our graduate programs that exacerbate mental health challenges

Need to be open and comfortable talking with students about resources and seeking help

Recognize that stresses of graduate school disproportionately affect marginalized students

Recognize the stigma surrounding mental health challenges

Acknowledge the normalization of stress in graduate school and lack of symptom recognition

Urgent calls for more research on mental health in graduate school (Duffy, Thanhouser, & Derry, 2019; Evans, Bira, & Vanderford, 2019)

"I think maybe something that's not talked about much is the mental health of grad students, and it's pretty bad. Like almost everyone I know has had to go to a therapist and had to take anti-depressant or anti-anxiety pills. Like mental health is not something that is much talked about, and people definitely need to start thinking about that." -Laura

ACKNOWLEDGEMENTS

Project Team: Renee' Schwartz, Jocelyn Steinke, Susan Stapleton, Marisol Mercado Santiago, Tasia Bryson, Kristi Tullis, Alyssa Proper, Steven Eddy, Casey Wright, Jacob Nelson, Ran Shi, and Mary Anne Sydlik

Advisory Board: Pat Campbell, Kimberly Griffin, Julia Melkers, Denise Sekaquptewa

All survey and interview participants!

This material is based upon work supported by the National Science Foundation under Grant No. 1309055. Any opinions, findings, and conclusions or recommendations expressed in this material are those of the author(s) and do not necessarily reflect the views of the National Science Foundation.



CONTACT INFORMATION:
megan.kowalske@wmich.edu