

ECR: A Mixed-Methods Study to Support STEM Faculty Mental Health and Well-Being

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Introduction

Faculty mental health and well-being (MHWB) is critical for the success of faculty, students, and universities and colleges. Though dialogue about student mental health and well-being (MHWB) is increasing, there is far less discussion about faculty MHWB. This difference in foci exists despite reports that faculty and staff have similar rates of depression, anxiety, and stress when compared to students [1]. A recurring survey of United States (US) student MHWB has recently expanded to include measures of faculty and staff MHWB [2]. Findings from this survey of 9,970 faculty and staff indicate a widespread pattern of decreased MHWB, with 40% agreeing that they currently needed help for problems with MHWB (e.g., feeling sad, blue, anxious, or nervous). Additionally, while 88% of respondents agreed that student MHWB was a priority for their institution, only 60% agreed that faculty MHWB was a priority for their institutions. This almost 30% difference in perceived prioritization indicates there are opportunities for systemic change at the university level to promote faculty MHWB. This project seeks to advance our understanding of the factors that impact STEM faculty MHWB using a mixed-methods approach that involves exploratory interviews with 42 STEM faculty and 19 administrators from 55 universities, which will inform the design and deployment of a national survey. Our findings will inform the design and development of workshops to promote effective approaches to supporting faculty MHWB.

Methods

In the past year (project year 1), we conducted interviews with STEM faculty and administrators across the United States (US) to learn more about their perceptions of faculty MHWB. We are currently analyzing these transcripts, with plans to create and conduct a survey in the future to gain a deeper understanding of the state of STEM faculty MHWB in the US.

Participants

Interview participants were STEM faculty ($n = 42$) and administrators ($n = 19$) from 55 universities across 23 US states and territories. Administrators primarily included department heads and deans. We recruited participants via a direct email that encouraged them to join us in an interview on the topic of supporting faculty well-being. The response rate for administrators (1.8%) was approximately double that of faculty (0.8%), indicating a promising interest in supporting faculty well-being from their leadership.

During interviews, we asked faculty to describe demographics that were salient to them, and some of these included: men and women; caregivers of both children and parents; those who

grew up in countries both inside and outside of the US, both citizens and non-citizens of the US; Asian, Black, Eastern European, Hispanic, Latina/o, Mestiza, Middle Eastern, mixed-race, South American, and white; neurodiverse; LGBTQ+; disabled; Catholic, Christian, and Jewish; first-generation; and having past experiences with negative mental health. We did not collect personal demographics for administrators, since there are significantly fewer administrators than faculty, to increase participant privacy and security around sensitive topics.

Participants came from universities and colleges that were: both two- and four-year; residential and non-residential; small, medium, large, and very large per the Carnegie Classification rankings [3]; associate's colleges, baccalaureate colleges, master's colleges and universities, and doctoral universities (both R1 and R2).

Data Collection

Four authors participated in the interviews, with Martin, an administrator, abstaining to promote participant anonymity. Jensen, Huerta, and Sanders conducted administrator interviews, and Sanders, Chan, Jensen, and Huerta conducted faculty interviews. Administrator interviews centered on critical incidents where (1) administrators felt their actions or decisions directly impacted faculty MHWB and (2) administrators became aware of times when academic policies or norms positively or negatively impacted faculty MHWB. Administrator interviews ranged from 36 to 61 minutes, with an average of 52 minutes. Faculty interviews asked participants to describe (1) aspects of their job that bring purpose, fulfillment, and connection; (2) aspects that are most stressful; and (3) written and unwritten rules that have positively or negatively impacted them in their position. Faculty interviews ranged from 26 to 74 minutes with an average of 53 minutes.

Analysis

We are currently analyzing the faculty and administrator transcripts separately in two distinct groups. We are using Maslach and Leiter's [4] six components of burnout as an organizing framework to guide our analysis of the faculty interviews. The six components of burnout (or a lack of burnout) include: workload, control, rewards, community, fairness, and values. We are using Lipsky's [5] Street-Level Bureaucracy framework to thematically analyze the administrator transcripts. This framework examines how front-line implementers (in our context, department chairs, associate deans, and deans) exercise discretion while navigating institutional constraints, revealing how their daily decisions mediate between organizational policies and individual faculty experiences. The following results section describes these components in more detail with exemplar participant quotes and descriptions.

Results

Faculty interview results are organized according to the six components of burnout, including both a definition of the aspect (with the inverse included in parentheses) and an exemplar quote. Administrator interview examples illustrate how institutional policies, discretionary practices, and structural constraints shape faculty MHWB, highlighting the systemic forces that administrators navigate in their roles.

Faculty Interviews

Work (Over)load describes the relationship between the demands of a job and the resources available (e.g., time, tools, goals, support) to meet those demands. For example, Alvin, who is on the tenure track, describes,

Sometimes it's not physically possible for me to get everything done. So sometimes I have to say, "Okay, I will not do this thing." I really don't like not doing something that I promised I would do, or that I have to do. (Alvin)

Here, Alvin describes a conflict due to their high workload, which they related to the most stressful part of their job.

(Lack of) Control describes the amount of autonomy and flexibility a person has in conducting work-related tasks. Many participants described control in what they taught, for example, when Elliot described, "I have a lot of autonomy over what I teach, what I do."

(Insufficient) Rewards can be both intrinsic (e.g. making an impact) and extrinsic (e.g., pay). Participants often described the reward of having a positive impact on their students, but other participants also described a lack of this student engagement reward. For example, describing many of their students as "so worried about their grade, but they're not interested in discussion. They're much more willing to run to administration if they're not happy." In this quote, Ejiro described a lack of student engagement with class as leading to Ejiro questioning if they are "doing the right thing?" by being in a teaching profession.

(Breakdown of) Community describes the quality of work relationships. When our participants described finding community, they often described relationships with coworkers or faculty at other schools who shared their disciplines. Velma shared,

I look outside [of my university] and to make friends for those types of community things already. I need to. Otherwise I would be really isolated and be really by myself making a lot of decisions about things without sort of knowing and understanding what's out there in the wide world and how to do better. (Velma)

This sense of community that Velma has been able to foster supports both their disciplinary and role growth as well as their well-being.

(Absence of) Fairness describes decisions that are (in)just and (un)equitable. For example, Mario described feeling that the tenure process was somewhat dependent on “if they like you,” sharing “There are cases where people have [a] strong record and people don't like you. They just say ‘no’ for personal opinions.” Mario did not think this dependency on a faculty being liked by the committee to be fair, and this was also a situation that Mario also described as out of their control, connecting this example to the Control dimension described previously.

Values (Conflict) describe the alignment with a person's internal sense of right and wrong, and they can motivate a person's connection to their job. For example, Astrid valued that their school offered a quality education that was affordable. They would “tell students, ‘Hey, don't go to Harvard for your undergrad. Go to [a college in our network, and then] go to Harvard for your master's so that you're not bankrupt before your [graduate degree].’” Astrid found their school more aligned with their values than Harvard, an Ivy League school, because of their school's affordability.

Administrator Interviews

Interviews with administrators highlight how organizational structures and institutional policies shape faculty MHWB and, to a large extent, the conditions under which faculty experience burnout. Participants described occupying a complex intermediary position; they are tasked with both implementing institutional mandates and responding to individual faculty needs. Administrator interview participants reported using various forms of positional authority to mitigate faculty stressors, including workload modifications, strategic mentoring, and advocacy for procedural flexibility. For example, Andrew described intervening when junior faculty showed signs of overextension: “I try to take that down a notch ... ‘no, you do not need to do that.’ ... created a little bit of space that they needed.” At the same time, administrators confronted systemic barriers that limited their capacity to address underlying causes of stress. As David explained, “There is more [of] a lack of policies and options on the social safety side ... it becomes a burden directly for the department.” Taken together, these reflections suggest that faculty stress and burnout are not merely individual experiences, but rather outcomes shaped by institutional systems that administrators must navigate daily with constrained resources and discretionary authority.

Future Work

Guided by Maslach and Leiter's [4] six components of burnout, our next step is to create survey items that capture the institutional factors that interview participants describe as impacting their MHWB. We plan to gather feedback from interview participants and our advisory board to revise these measures. Then, in conjunction with measures of MHWB, we will distribute this survey to STEM faculty across the US. After gathering survey results, we will use data from this survey to conduct workshops at to-be-determined partner institutions to support faculty MHWB. To learn

more about recent progress on this project, visit:
<https://sites.google.com/umich.edu/faculty-well-being/home>.

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