The Impact of Peer Support Groups on STEM Graduate Students Well-Being

Dr. Sarah Keller, MSU-Billings Dr. Jayna Mumbauer, U. Montana 3 March 2023

Association for Marketing & Health Care Research

Enhancing Community Mental Health & Wellbeing





Overview

- HOPES overview, motivation & goals
- Group counseling effectiveness
- Our project
- Results
- Discussion

Grad Student Mental Health: A National & International Problem

- High stress; impostor syndrome; money; school-work-family conflicts
- Mental health struggles of grad students are growing (Okahana 2018)
 - Amplified by COVID-19, sociopolitical turmoil, & career uncertainty
- Over 1/3 seek help for depression; ~1/5 harassed (Global survey by *Nature* 2019)
 - Some needing help don't seek it stigma, cost
- - Students from different cultures & demographics need different mentoring
 - Disconnect is much worse for women, diverse gender identities, racial/ethnic minorities, veterans, students with disabilities, and international students
- Campus services mostly designed for undergrads >> very different needs





HOPES Project Goal & Objectives

Mental Health Opportunities for Professional Empowerment in STEM

Goal: design, pilot, assess, and implement evidence-based, sustainable, and replicable strategies to facilitate and enhance graduate-student mental health.

Objectives

Build and test activities that enable diverse STEM graduate students to acquire skills for positive mental health and resilience

Provide professional development for STEM faculty advisors to support graduate-student mental health and transform the department's culture

Pilot scale-up and expansion to other campuses

Assess to guide the project and determine its impacts

National Science Foundation funding: \$500 K, 15 August 2021 to 31 July 2024

Collaboration among Montana Tech, MSU-Billings, and UM

Just finishing year 2





HOPES Project Components

Baseline & follow-up surveys for faculty and students (annual)

Student activities: Peer Groups & Cognitive Behavioral Therapy skills

Faculty activities

Faculty & student joint activities (to launch this academic year)

Scale-up to three other campuses in AY 2023/24

- Montana State University Bozeman
- University of Idaho
- •University of the District of Columbia





HOPES Model

Mental Health Influences on STEM Graduate Students Faculty Advisor Relationship & **Challenges to Student Well-Being Departmental Climate** Disciplinary Pressure Imposter Syndrome Interpersonal Communication Skills Social Isolation Cross-Cultural Understanding Depression/Anxiety Lack of Awareness Hopelessness/Loneliness **Graduate Student Effects** Bias Academic Performance Student Engagement Perceived Stress Perceived Support HOPES Assessment Activities Faculty Faculty-Student Peer Integrative Student Education Mentoring Activities

STUDENT OUTCOMES:

Improve Inclusiveness
Reduce Stigma
Foster Professional Identity Development
Increase Awareness of Resources
Develop Coping Skills



FACULTY OUTCOMES:

Strengthen Faculty Agency Improve Mental Health Communication Foster Inclusive Departmental Culture





HOPES Peer Support Groups







Group Counseling for College

Group counseling has been offered on college campuses for decades as a means of serving students with specific mental health and emotional needs while they navigate the pressures of an academic environment.

- Based on the rationale that peers have a strong influence on individual behavior (Springer, 2014).
- Level of trust and comfort with their peers that allows for more open discussions of sensitive topics (Javanmiri et al., 2013).
- More practical and cost-effective option for college counseling centers
- Can promote healthy identity development for students experiencing stressors related to identity be it racial, gender, class-based or other status

A meta-analysis on group counseling interventions aimed at reducing stress in university students (1431 students in 24 studies):

• Group counseling -- using cognitive, behavioral and mindfulness approaches – was associated with decreased symptoms of anxiety and lower levels of depression and cortisol (Regehr, Glancy & Pitts, 2013).





Social support was found to explain 28% of variance in graduate student program satisfaction and 30% of general life satisfaction among doctoral students in counseling and psychology programs (Tompkins.et al., 2016).

IMPORTANCE OF SOCIAL SUPPORT





Methods

Three 6-week counseling groups were offered to STEM students at 2 universities (n = 4, n = 5, n = 6)

Facilitated by Counselors-in-Training (CITs) and a community counselor

 Coping skills were from a variety of counseling approaches including Dialectical Behavioral Therapy, Acceptance and Commitment Therapy, Cognitive Behavioral Therapy, and Positive Psychology.



Methods

- Focus Groups (n = 5)
- In-depth Interviews (n = 2)
- Questions:
 - What was your experience participating in the peer support group?
 - Did you have any specific stresses or challenges that prompted you to take this training? Or did you identify a specific challenge to work on in the course of the training? If so, please describe.
 - Did participation impact your attitude towards your graduate school experience? If so, how?
 - Which parts of the experience were most helpful? Why?
 - What parts of the experience were least helpful? Why?
 - What were your thoughts before, during, and after the training?
 - How did the experience impact your relationships?
 - Is there anything that could have been added to the trainings that could improve the experience?





Results

Four broad themes emerged

- (a) challenges of graduate school
 - Isolation, stress, work/life balance, imposter syndrome, lack of faculty mentorship
- (b) therapeutic benefits of the support groups:
 - universality, problem-solving, alternative perspectives, attitudes towards helpseeking, and social support
- (c) the difficulties associated with participating in the groups
- (d) recommendations for future groups





Benefits

Universality:

- Validation from other group members
- Recognition one's struggles are not unique

Problem-solving

- Facilitation of problem-solving with equipment, resources
- Research advice

Alternative perspectives

- Opportunity to connect across disciplines
- Application of coping skills

Group dynamics

- Interchange
- Free flowing discussion





Student Focus Group Results



Graduate student experience is challenging:

"That feeling that you are alone going to school and working, sometimes it can feel like people don't really understand..."



Positive reflection on peer groups:

Problem solving: "Even if we felt like we were commiserating it would lead to a solution. Those were really great. I actually found it really helpful. I was interested to see how it would go at first."

Universality: "Just that knowledge and knowing that we're all in this boat together. Those feelings of that together ness just feeling that you're not the only person who's out there struggling just trying to make it through the day."



Negative reflection on peer groups:

Time scheduling Low participation





What Did We Find?

Peer Groups

- In-person format helped students feel less isolated
- Interaction with other graduate students helped build support
- Liked small group size
- Continuous meetings built trust
- Just talking was really helpful
- Cross-disciplinary interaction helpful
- Helped students feel less isolated with their challenges
- By contrast, our Cognitive Behavioral Therapy (CBT) Training
 - Online format unhelpful
 - Too didactic, not interactive enough





Other Findings

STEM graduate students felt apprehension about the group initially BUT their feelings changed over time

- Students felt as though the groups were a "last resort" and had low expectations regarding the benefits.
- Apprehension grew into pleasant surprise as they began to experience therapeutic benefits of group counseling.
- We are now focused on recruiting students who may be experiencing the same disenchantment regarding graduate education and mental health support.

Change agents

- We leave this study challenged as researchers and faculty to consider the ways in which we operate as change-agents within the system of higher education
- Students insisted something needs to change in graduate programs, upstream, to make graduate education more inclusive, health-promoting, and accessible





What do we do about it?

- Decrease social isolation
- Increase social support
- Campus services often don't address graduate-student needs
- Financial burden is hard (especially at UM)
- Find strategies to:
 - Build community on campus
 - Foster non-academic interactions among grad students & faculty across disciplines
 - Tailor counseling & other student services to fit graduate student needs
 - Increase graduate student stipends
 - Other???





Q&A and Acknowledgements

- Thank you for your attention
- We appreciate other participants on HOPES team:
 - MSU Billings: Jana Marcette,
 - Montana Tech: Beverly Hartline, Charie Faught, Sue Schrader, Scott Risser,
 Cheyenne Crooker
 - U.Montana: Ashby Kinch, Annie Belcourt, Kristen Byrne, Bryan Cochrane, Anna Sala, Holly Schleicher

HOPES is supported by the National Science Foundation under grants 2105254, 2105251, and 2105221. Opinions, findings, conclusions, & recommendations are those of the authors, and do not necessarily reflect the views of the National Science Foundation or the host campuses.



