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Lessons Learned: Summer Book Club to Promote Reflection among Engineering Faculty on Mental Health of Students

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Lessons Learned: Faculty Development Book Club to Promote Reflection among Engineering Faculty on Mental Health of Students

Introduction

It is a real difficult challenge walking through this world full of monsters when our own bodies and minds can be monstrous.

- Sarah Rose Cavanagh

In universities around the U.S., mental health issues are on the rise [1], [2], [3]. College students are at increased mental health risks due to major mental health problems manifesting during early adulthood [4], and significant life changes (e.g., changes in independence, environment, and social support, academic pressures/competition) [5], [6]. While institutions have amplified the level of mental health resources available on campus to address the current 'mental health crisis,' students continue to experience mental health issues [1], [7]. Specifically, students' mental health concerns are often associated with unsupportive and challenging learning environments, difficulties with time management, and academic performance expectations [5], [8].

Mental health issues are more pronounced among engineering students, specifically among those with marginalized identities [5]. Additionally, research shows that engineering students experiencing mental health issues are less likely to seek professional help compared to non-engineering students [9]. This treatment gap is potentially caused by the normalized engineering stress culture [1], which exacerbates a high-stress training environment [10]. Furthermore, Posselt & Lipson [11] assert that students who viewed their classrooms as competitive were more likely to suffer from mental health disorders such as depression and anxiety. Consequently, these mental health problems within engineering further the need for mental health interventions.

Faculty and staff constitute an essential resource for the identification of symptoms of mental health distress due to their significant connection with college students [3], [12]. Students tend to share their mental health concerns when they build relationships with their instructors. However, Albright [13] found that 58% of faculty and staff do not feel adequately prepared to recognize signs of student distress. While instructors are open to supporting student mental health, they feel their primary role is to connect students in distress with mental health resources or services [12], [13], [14]. It has been reported that most college educators have had some level of training related to student mental health, but their confidence in their ability to navigate conversations about anxiety, depression, or general stress remains low [3]. In engineering, faculty development training on mental health has been limited to brief informational sessions on what mental health resources are available on campus, with no time spent on how to recognize, discuss, or refer students in distress [3]. Consequently, the engineering education community is searching for alternative ways to actively involve faculty in educational issues related to the mental health of engineering students – such as the implementation of faculty book clubs.

Book clubs have been previously used as a professional development tool in higher education [15], [16], [17]. However, the use of book clubs to explore educational issues is less popular in science

fields, and even less in engineering [18], [19]. Thus, this **Lessons Learned** paper focuses on describing our experience of running a summer book club for supporting engineering faculty development on critical educational issues related to the mental health of college students. The book club invited engineering educators from a large R1 institution in the Mid-Atlantic to participate in the discussion of the book*, Mind over Monsters: Supporting Youth Mental Health with Compassionate Challenge* by Sarah Rose Cavanagh [20]. This paper does not focus on describing specific mental health interventions but instead focuses on lessons learned for faculty development through on-campus book club activities. The outcomes of this Lessons Learned paper should benefit faculty, staff, and administrators looking to provide development opportunities at their institutions.

Context of book club

Professional faculty development opportunities should go beyond skill acquisition [21]. Professional development opportunities such as book clubs provide a social and intellectual forum for faculty to examine their knowledge and practices [22] and share ideas, thoughts, feelings, and reactions [15], [21], [23]. Book club activities can maximize educators' affective responses to ideas by eliciting deep, personal emotional reactions. Thus, book club activities offer opportunities to enhance the construction of new understandings, build, expand, and alter conceptual frameworks and professional schemas [15], [24].

Our university-wide teaching center sponsored reading groups around the university to discuss the book, *Mind over Monsters: Supporting Youth Mental Health with Compassionate Challenge* by Sarah Rose Cavanagh. This paper presents a summer book club organized by the Center for Teaching and Learning in the College of Engineering, which decided to opt-in to the university-wide book club. While there was no guidance on how to run the book club meetings by the university-wide teaching center, the College of Engineering book club facilitators have conducted book club meetings in the past, have completed mental health trainings and are well-versed in the concepts presented in the book.

The Mind over Monsters book is Sarah Rose Cavanagh's fourth book concerning the overlap of emotion, motivation, and learning in education [20]. The book is an investigation into the mental health crisis affecting young adults today. As a psychologist and a professor, she is concerned about these issues due to her own experience with panic attacks and periods of selective mutism. Using pedagogical, neuroscientific, and psychological research, she suggests educators cultivate a safe and playful learning environment characterized by compassion and challenge. Cavanagh's observations are useful for teachers, administrators, parents, students, and individuals struggling with anxiety and depression.

Structure of book club

The book club program was divided into three sessions to discuss various sections of the book: (1) Crisis, Compassion, Challenge, (2) Bodies and Beliefs, and (3) Behaviors. Each session presented mental health resources and completed various discussion and reflection activities. Each summer book club session was 1.5 hours and was scheduled once a month. Sessions occurred in person, but to encourage additional participation, we also offered an online/remote option. Approximately

35 participants, which included faculty, staff, postdocs, and graduate students, signed up for the book club and received a copy of the book from the Engineering Center. Before sessions, participants were asked to read a few chapters to prepare for the discussion. The topics covered aligned with the concepts introduced in the text chapters:

Session 1 (June):
Part one – Crisis, Compassion, Challenge
- Preface
- Ch. 1. Crisis and Complexities
- Ch. 2. Our Youth Need Compassionate Challenge

Session 2 (July):
Part two and three – Bodies and Beliefs
- Ch. 3. Infused with Eros—Embodied Mental Health
- Ch. 4. Unruly Bodies in an Unpredictable World
- Ch. 5. Seeking Oneself—Energy and Value
- Ch. 6. Determining Oneself—Direction and Expectancy

Session 3 (August):
Part four – Behaviors
- Ch. 7. Arousal, Action, and Uncertainty
- Ch. 8. Play and Improvisational Learning
- Conclusion – The Monster at the End of This Book

Sessions typically started with a welcome and the rules for the summer club. Summer book club rules included:
- Come to as many of the sessions as you can but do not worry if you need to miss some.
- Read the assignments in advance but still attend if you do not finish the reading.
- Share as much as you feel comfortable – what happens in the book club, stays in the book club.

Following the welcome, the group elected to start with an ice-breaker exercise. Additionally, during the first session, important mental health resources/tips from the institution were provided. The structure of the rest of the session was small-group discussions in response to guided questions related to the concepts covered in the readings. Small group discussions were held to encourage more participation and sharing. There was time at the end for large-group recap and wrap-up reflections.

An assessment survey was conducted at the end of the last session. The survey comprised close- and open-response items. The closed-response items asked attendees about their overall satisfaction with the book club, whether they would be interested in attending future book club sessions, and if they are interested in attending mental health-related courses/training. The open-response items asked participants questions related to changes in their work practices based on learning about students' mental health, changes needed in the college to better support students and faculty members' mental health, and takeaways from the book club they will be using in the future.

Lessons Learned

Through the summer mental health book club organization and feedback, we learned various lessons. Firstly, we notice that attendees found the book club *meaningful* and had *positive* reactions. They found the book club session better than expected, stating that they learned new things and that it was applicable to what they were already doing. For example, one participant stated, "I feel like I can grow on what I've already been doing and help students challenge themselves more in a much more positive way and many ways." Some attendees did not realize they were academically challenging their students as mentioned in the book.

Secondly, we learned that attendees would update their academic practices based on learning about students' mental health. For instance, they mentioned using autonomy-supportive pedagogy to motivate students to learn. Also, they emphasize focusing more on teaching core and difficult concepts in class and less on teaching the maximum amount of content. Additionally, a participant expressed that they will "talk more about being challenged and that being unsure or uncomfortable – pushing the boundaries of the known and comfortable, is where learning happens." Also, others will make a more concerted effort to offer opportunities for their students to connect over the semester and alter assessments to give students some choices over how they want to be assessed.

Thirdly, we learned that participants would use concepts and suggestions from the book and the book club meetings in the future. For example, they intend to incorporate check-ins with students, display pictures before the start of class that are calming, and centering, and reach out to students for their picture contributions also. Furthermore, participants will use methods to decrease student stress (e.g., providing ample practice exams). Most importantly, all participants plan to emphasize 'compassionate challenge,' engagement, and becoming comfortable with uncertainty.

Fourth, we learned that participants wanted changes made in the engineering community to better support students' and faculty members' mental health. The most common response was to employ the book's "compassionate challenge" approach to get students used to college life's rigors. Similarly, a participant stated, "We need to communicate to our students that it's okay to be challenged and uncomfortable, and that college is supposed to be hard, but also provide them with the resources to cope with that stress." Overall, they call for more institution-wide changes in how we think about and support mental health in the classroom, including more educational and professional development opportunities for both students and faculty on mental/emotional health issues and personal practices to improve it. From these results and inspired by faculty response in the book club, the Engineering Center did provide multiple mental health-focused opportunities throughout the following fall semester outlined in another paper [25].

Finally, from closed-response survey feedback and informal conversations after book club meetings, we learned that they would be interested in participating in future book club sessions and taking training on mental health (e.g., to learn how to help a person who may be experiencing a mental-health-related crisis or challenge). Suggestions for future book club topics include fostering student independence and responsibility; inclusive teaching; and diversity, equity, inclusion, and belonging in engineering. Furthermore, while we sent out an availability poll to schedule the best time/day for each session, it was impracticable to find a suitable time for all participants. Hence, the main suggestion on what could be improved or made differently in future

book clubs was to offer better times and/or multiple book club meetings. The Engineering Center intends to continue improving and offering similar events in the future. These learnings will allow the engineering education community to organize similar book club programs as faculty development opportunities.

Conclusions

As educators, we need to develop relationships, provide mentorship, and become a support system for students as they navigate their college experience. As mentioned by Cavanagh [20], compassion enhances interpersonal connections and creative behaviors, and increases students' hopefulness and psychological well-being. Thus, the engineering community needs to recognize students through attentive listening and cultivate learning and living environments characterized by compassion. This summer book club program provided administrators, faculty, and students with a chance to explore and learn about the mental health crisis affecting college students and ways to help them. Lessons learned contribute to the knowledge of designing, facilitating, and conducting professional summer book clubs, and help instructors realize connections between students' experiences and concerns and various aspects of the academic engineering environment. The success of the summer book club format that we developed has helped us realize that we can effectively bring colleagues from multiple departments and campuses to discuss and learn about educational issues. We will work to continue improving and offering professional development book clubs in the future. Additionally, [25] outlines the overall opportunities the Engineering Center implemented related to faculty and student mental health and well-being.

Acknowledgement

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