



Creating an Optimal Learning Environment with Brief Mindfulness Activities

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Background

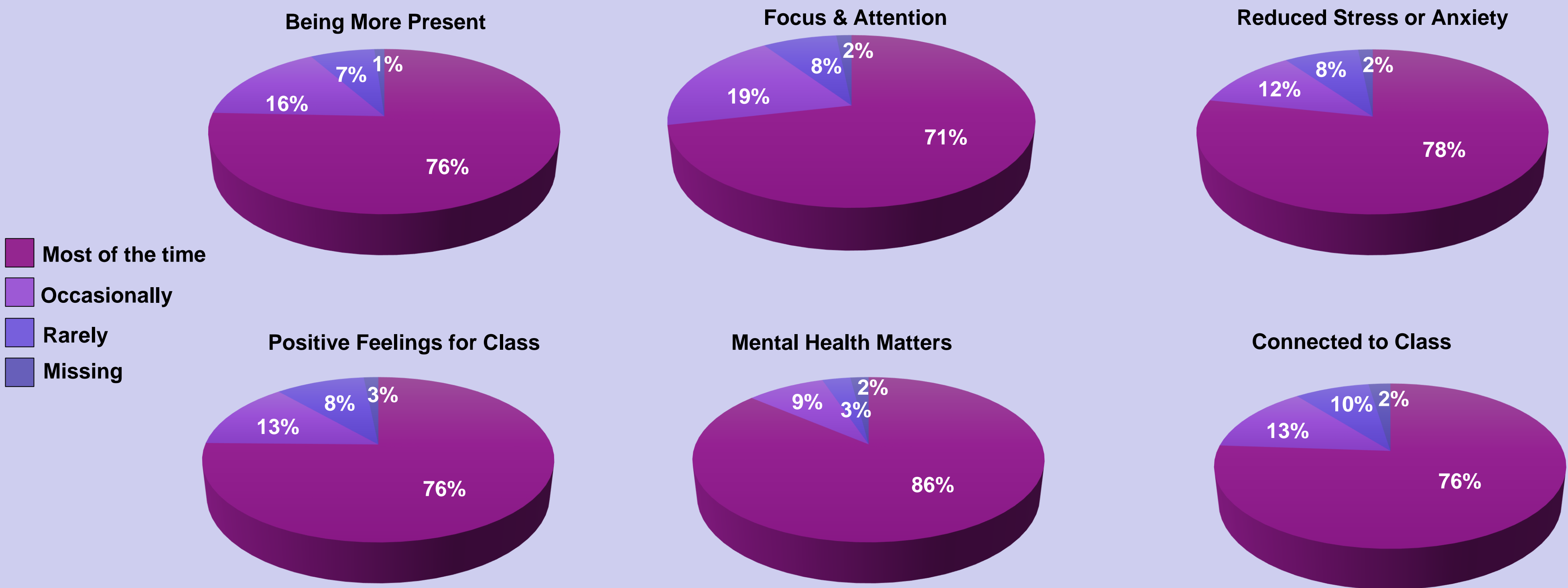
- The ideal classroom experience for optimal learning is one where students can be focused and engaged in the material. Student stress, anxiety and poor mental health are an obstacle to the creation of this experience. With the high levels of psychological distress and mental health problems that college students are facing, both professors and students need tools that can aid in their reduction and allow for an optimal learning environment.^{1,2}
- In general, engaging in mindfulness results in positive changes to the brain. They have also found an increase in thickening of the prefrontal cortex and the hippocampus. These are associated with improvement in executive function and memory and learning.^{3,4} Functional changes related to attention and focus have also been found.⁵
- Quite a few previous studies have used mindfulness activities in the classroom and have found that they benefit students. Students experience greater well-being, reduced exam stress, and improved classroom attention to name a few^{6, 7, 8, 9, 10}

- Current Project**
 - Previous usage of mindfulness in the classroom by the researcher in their positive psychology courses yielded positive response from students. They reported through journal responses that they enjoyed doing them and found them useful.
 - This prompted a pilot testing of using these techniques outside a course that focuses on the topic of mindfulness and moving it into a large lecture of General Psychology, with majority non-psychology majors to see if it could increase focus, attention and engagement. A reflection survey at the end of Spring 2024 found that many students as expected did report a perceived increase in their focus and attention, but surprisingly they also reported a reduction in stress and anxiety, increased positive feelings toward the class, feeling more connected to the class and believing that the professor cared for their mental health.
 - The success in this course inspired an interest in exploring if the large lecture hall findings could be replicated and if they could be extended into two other psychology courses, a moderate size, equal number of major/non-majors in Research Methods, and a small, primarily majors, Personality Psychology course. Both qualitative and quantitative data methods were utilized.
- Research Questions:**
 - Do students perceive that regular usage of mindfulness exercises at the beginning of class help them to focus, feel present, attend to class, reduce their stress and anxiety, increase positive feelings toward the class, feel connected to the class and believe their professor cares for their mental health?
 - Are there any differences in these perceptions between the three classes, student gender, their connection to psychology (major/non-major) how much they participated in the exercises or their prior experience with mindfulness?

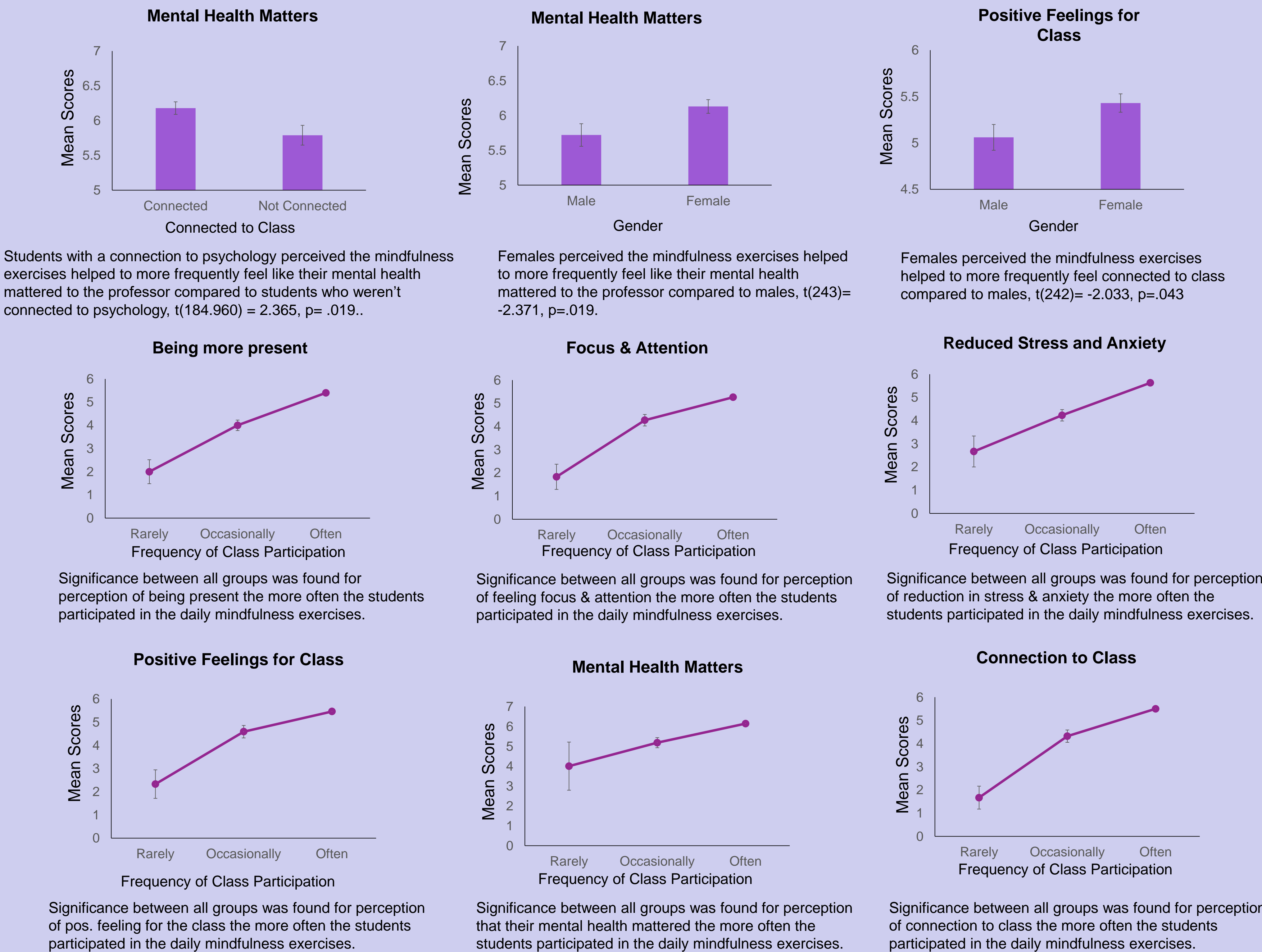
Participants

- N= 255
- Age Range: 18-34, M= 19.57, SD=1.830)
- General Psychology (60%), Research Methods (22%), Personality Psychology (17.6%)
- Female (66.3%), Male (31.8%), Other (2%).
- White (81.6%), LatinX (5.5%), Asian (5.1%), Black (3.1%), Multiethnic (3.1%), Native American (1.2%).

Descriptive Findings



Inferential Findings



Procedure/Materials

- 1–3-minute mindfulness exercises delivered at the beginning the class with the lights dim.
- Followed by a reflection writing prompt about experience
- At end of semester completed survey over the experience

Analyses focused on this part of the survey

In general, most of the mindfulness class activities helped me

- To be more present in our class.
- To have more focus and attention to the class material
- To reduce some of the stress and anxiety in my life
- To feel more positively towards the class
- To feel like my mental health mattered to the professor
- To feel more connected

Students replied with how frequently they felt this way (1-7, never to always)

Conclusion

- The lack of significant differences between the three classes as well as most of the demographics variables suggests that for most students, they perceived the mindfulness exercises to be beneficial in helping them on the factors that create an optimal learning environment.
- All data comes from psychology courses, the makeup of general psychology is mostly non-majors, and their overall positive perceptions suggests this could be a successful tool outside of psychology courses.
- Prior research on mindfulness dosage suggests that the more mindfulness someone experiences the more impactful it is for the user. This current project supports that finding. The students who participated the most reported perceiving it to be the most helpful across all the factors that create an optimal learning environment.¹¹
- Future research will utilize pre-existing engagement measures and measurement of learning outcomes.

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