

Exploring the Effects of Mindfulness Based Stress Reduction on Pre-Clinical Medical Students: A Qualitative Methods, Longitudinal Pilot Study

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Introduction

Mindfulness Based Stress Reduction has become an increasingly popular practice in healthcare-affiliated populations. MBSR is a course designed to promote mindfulness and awareness within oneself through a combination of formal and informal practices. Studies suggest healthcare workers are at an increased risk of experiencing stress and burnout; this is prevalent among medical students in their first two years due to the rigorous nature of medical school coursework. The primary objective of this project is to evaluate the effectiveness and feasibility of implementing an MBSR program to facilitate improvements in key areas of mental health among medical students.

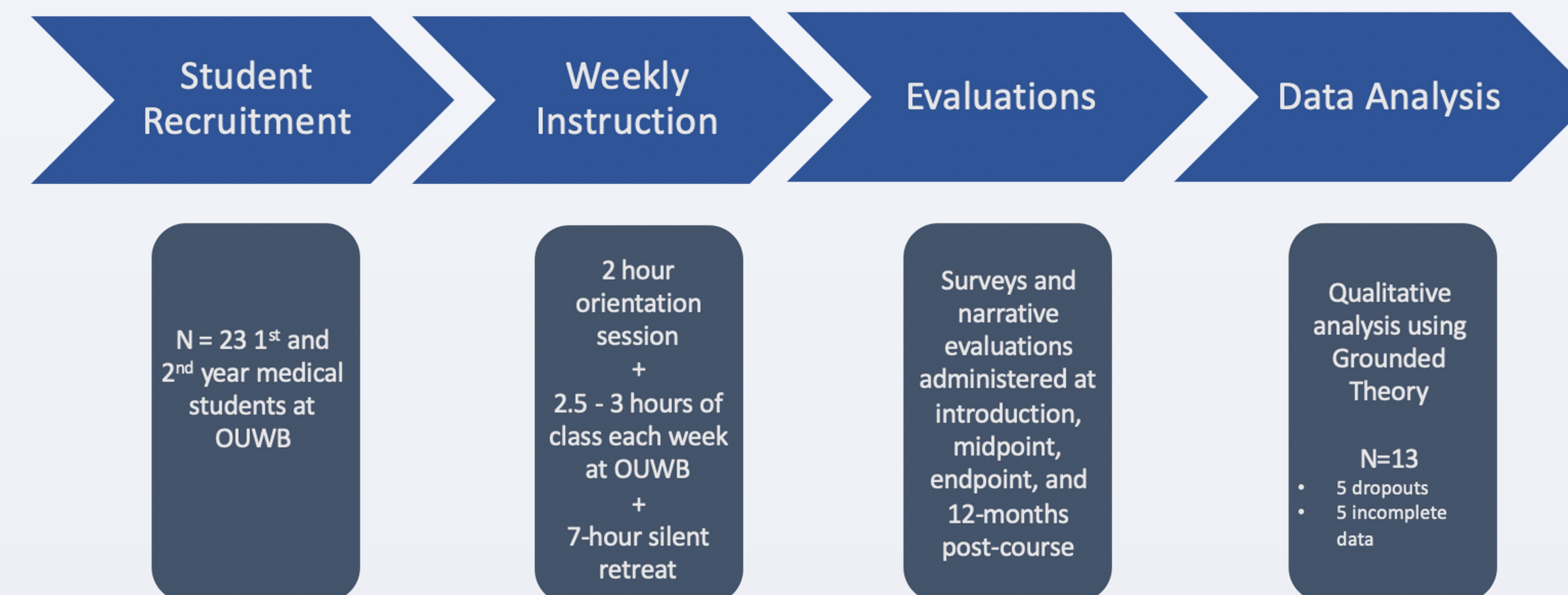
Aims and Objectives

The goals of this pilot study were to:

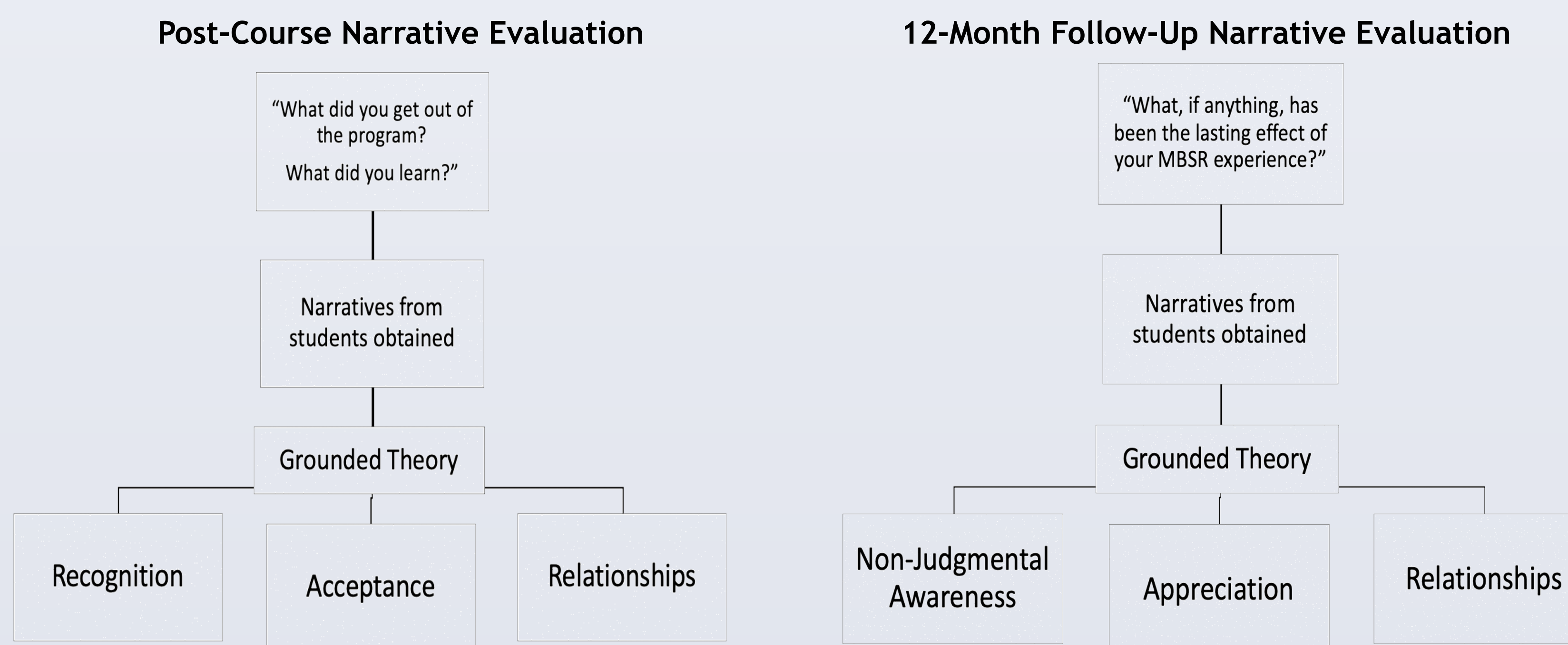
- Assess the feasibility of an MBSR course for pre-clinical medical students as measured by:
 - Enrollment
 - Retention (drop-out rate)
 - Attendance (percentage of classes)
- Assess whether the themes that arose in the qualitative analysis are consistent with growth in self-awareness, mindfulness, resilience and/or other areas of mental health immediately following and one year after course completion.
- Provide the groundwork for more sophisticated projects in this area, such as including a control population and greater longitudinal follow-up.

At the final session, the students were asked to arrange themselves in a way that demonstrated their feelings about the course. Rather than assuming individual poses, they initiated a tableau, lying on the floor in a semi-circle, as if they were doing a body scan. They invited their instructor to sit at the head of the circle and each one formed a heart shape with their hands. They asked a bystander to take a photo which was shared with all as a memento of their work and growth together.

Methods



23 first- and second-year medical students from OUWB volunteered to participate in an MBSR course. The course was taught by a certified instructor using the 2019 Brown University curriculum. Handwritten responses to open-ended questions were completed by participants during the fifth and final classes and one year after course completion. A qualitative analysis using Grounded Theory was used to analyze the results of the surveys. Feasibility of offering MBSR to preclinical medical students was imputed from the retention rate and class attendance.



One question from the Post-Course Assessment and one question from the 12-Month Follow-Up Assessment were chosen for analysis. These questions were selected on the basis of relevance to our overall objectives, quality of participant responses, and overall similarity allowing direct comparison between immediate and long-term effects. Responses to the chosen questions were coded as themes in a manner consistent with Grounded Theory techniques.

Results

18 of the 23 enrollees (79%) attended four or more of the ten sessions (the all-day class counted as two sessions). Average class attendance of these 18 students was eight of ten sessions. 5 of these 18 students did not submit both the Post-Course and 12-Month Follow-Up assessments. Data from the remaining 13 participants was analyzed. The figures below serve to define each code and provide examples from participant narratives.

Post-Course Assessment

Participants were asked to describe what they got out of the MBSR program, including anything they learned from the course.

Recognition	<p><i>Awareness of responses to stress; observing reactions/emotions</i></p> <ul style="list-style-type: none"> "This program not only provided me with tools for practice, but also taught me how to be more self aware and recognize when these practices would be helpful to me."
Acceptance	<p><i>Actively allowing or embracing stress response without a desire to change</i></p> <ul style="list-style-type: none"> "I learned to welcome in negativity rather than push it away. The concept of loving bad emotions was crazy to me, but I think I'm on the road to getting there."
Relationships	<p><i>Relating to others, utilizing skills such as mindful listening</i></p> <ul style="list-style-type: none"> "I really enjoyed the work we did around communications. Specifically the importance of listening to people and not needing to come up with a response or a reaction."

12-Month Follow-Up

Participants were asked to discuss the lasting effect of their MBSR experience after one year had passed from completion of the course.

Non-Judgmental Awareness	<p><i>Being observant of reactions to stressors without judgment; knowledge of mindfulness tools</i></p> <ul style="list-style-type: none"> "I am reminded to detach from my situation and observe my feelings without judgement almost daily. I see the benefits of a less reactive mind in all facets of my wellbeing."
Appreciation	<p><i>Noting the value of the MBSR course and benefits of the lessons learned</i></p> <ul style="list-style-type: none"> "I have tried to stay more present in the "now", focusing and appreciating what is going on around me rather than worrying about what needs to be done next."
Relationships	<p><i>Noticing changes in interactions with others; re-prioritizing personal relationships</i></p> <ul style="list-style-type: none"> "[Before the MBSR course], my family, significant other, and friends all came second in life. Thankfully, my MBSR experience helped me re-prioritize what is most important to me."

Conclusions

The themes of recognizing stress, accepting stress responses, bringing mindfulness to relationships, appreciating the fruits of one's efforts, and developing non-judgmental awareness demonstrate growth in self-awareness, self-acceptance, mindfulness and resilience, all of which bode well for the mental health of the participants.

On the surface, the retention rate of 79% may be compared unfavorably with a similar study by Van Dijk et al which demonstrated a dropout rate of 4%. However, theirs was a 16-hour course offered during duty hours for medical students in their clinical rotations, while the program utilized in this study asked for 28 hours of non-classroom time.

The missing data is a limitation to the study, as it is possible that the students who did not complete all surveys might have reported quite different experiences compared to their peers.

Subsequent work with the results of this MBSR study will analyze quantitative data collected during and after the course and perform mixed-methods analysis. Additionally, the authors will seek to incorporate and study a standard, or perhaps modified, MBSR course as a voluntary, for-credit option within the OUWB humanities curriculum.

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Acknowledgments

The authors of this study would like to acknowledge several key individuals and institutions for their contributions toward this manuscript. We wish to thank Dr. Tracy Wunderlich-Barillas, Director of Research Training at Oakland University - William Beaumont School of Medicine, for her guidance and assistance in qualitative data analysis. Thank you to Dr. Kara Sawarynski, Embark Program Co-Director at Oakland University - William Beaumont School of Medicine, for her mentorship throughout the development and completion of this research study. Thank you to Bharti Thakkar, MBA, B.S. H.Sc., C(ASCP), MBSR Teacher Level 1, for her efforts in transcribing participant data. Finally, we wish to thank the OUWB Capstone Program for providing funding necessary to administer the MBSR course to OUWB students at no personal cost.

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