

# BACKGROUND

The COVID-19 pandemic has accelerated the adoption of online learning across various academic disciplines, including medical education. This study aims to investigate how medical students' perceptions of online learning change before and after matriculation. A comparative thematic analysis was conducted at an osteopathic medical school in Indianapolis, IN, to explore the factors influencing these perceptions and the potential impact on students' educational experiences. The findings highlight the effects that one semester of medical school can have on changing the opinions of students regarding online learning.



# MATERIALS & METHODS

**A qualitative survey was administered to first-year medical students before and after one semester of medical school:**

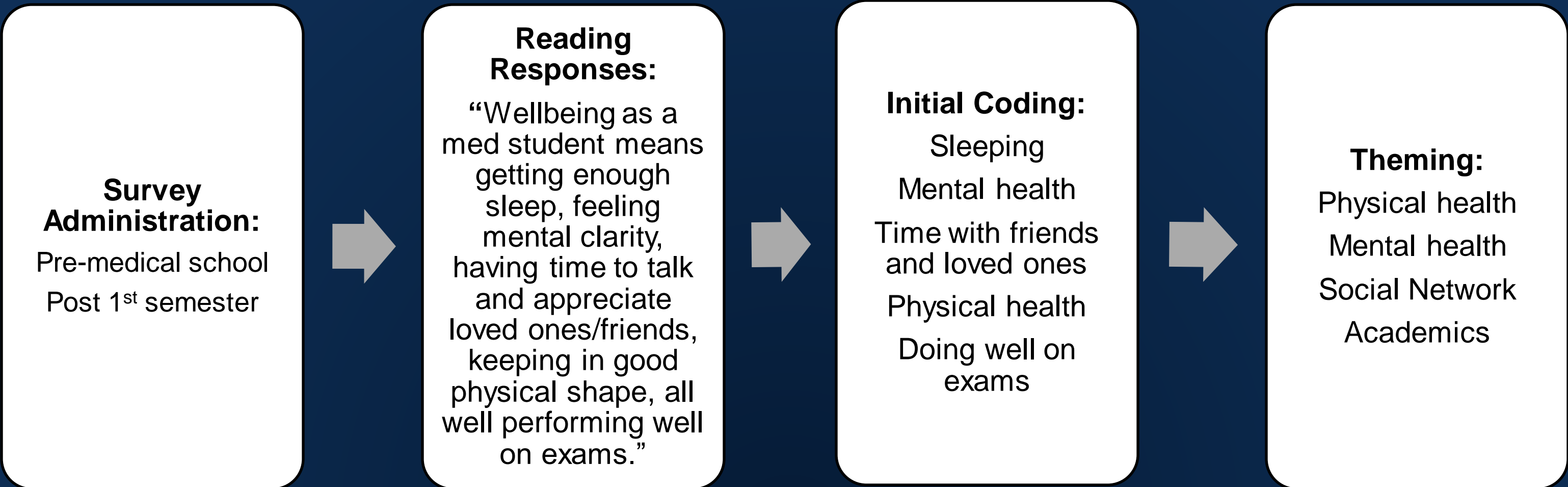
- The incoming first-year class at the Marian University College of Osteopathic Medicine (n=160) was invited to complete a qualitative online questionnaire at their orientation regarding their perceptions of wellness and how their well-being might be impacted by various factors throughout the program.
- This class is 70% female, 30% male with an age range of 21 to 37, with 81% between ages 21-24. Four responses were filtered out due to participants' prior enrollment at a medical school. Six open-ended questions were asked about perceptions and experiences of mental health, well-being, and views on interventions such as non-mandatory lectures. Thematic analysis was conducted across all 156 responses.
- After completing the first semester five months later, first-years were asked to retake the survey. A code book was created after reading the responses. Then the codes were grouped into themes, and the two survey results were compared between the two time points.

**The Survey Questions administered in August and January:**

1. What does 'medical student wellbeing' mean to you? Can you give examples?
2. What factors do you think contribute to or affect medical student wellbeing?
3. In your experience, how have medical schools, health services and clinical placement settings changed student and trainee mental health and wellbeing?
4. What has Marian done that has affected your overall wellbeing?
5. **What do you think about the idea and impact of medical students being encouraged to attend lecture in person but not required to?**
6. Have you heard any positive or negative feedback from others about the way Marian helps with wellness? (Can you name the group (without identifying individuals)? Why do you think they felt this way?)

# How Medical Students' Perceptions of Online Learning Change After Matriculation

**An overview of the qualitative process:**



Thematic Results Question 5			
Theme	Pre-Medical Students (%)	Post 1 <sup>st</sup> Semester Medical Students (%)	Example Student Responses
Control	87.10	75.48	"I love having a choice in the matter"
Balance	40	26.45	"[Online lectures] allow students to be flexible with their schedule"
Mental Health	17.42	23.22	"It allows students to save time and get more sleep if they need to one day"

Meesam Zaheer, Madeline Schmiedeknecht, John Svendsen, Joseph Asper, Taylor Mihalic, Zachary Montgomery, Wyatt Reed, Asia Hudson, Julia Hum

College of Osteopathic Medicine, Marian University, Indianapolis, IN, USA

# RESULTS

- Participant responses were coded and grouped into the following eight themes: Spiritual Health, Physical Health, Mental Health, Financial Health, Academic Importance, Peer Support, Balance, and Control.
- When participants were asked what they think about the idea and impact of medical students being encouraged to attend lecture in person but not required to, 87% of the responses pre-matriculation were linked to Control, encompassing codes such as 'freedom of choice' and 'discipline'. Responses linked to Control remained elevated after matriculation.
- Balance was the next most mentioned theme from our results, with 40% occurrence rates in the pre-matriculation group. Students mentioned how the option of watching lectures on their own time gives them the flexibility to plan out their day and attend to other personal commitments. Responses related to Balance decreased to 26% after matriculation.
- Mental health was the third most prevalent theme from the pre-matriculation responses, with 17% of responses linked to this theme in the pre-matriculation group, and increased to 23% after completing one semester. Students' responses mentioned that sometimes life happens. You might have a death in the family or you might get sick to the point that you're missing multiple days of school. With the option of watching lectures from home, students mentioned that this helps with their mental health, especially when they're having an "off day".
- Academics was also a prevalent theme among responses, encompassing codes such as the opportunity to pace yourself due to being able to pause and rewind lectures and accommodating different learning styles.
- Medical students looked forward to and ultimately enjoyed having non-mandatory lectures (Question 5). Students appreciated the control they found in having the choice over their schedule. In the responses students appreciated the flexibility of optional lectures and the money potentially saved by decreased travel. However, students did express that by not attending lectures there were missed opportunities to socialize with peers.

# FUTURE DIRECTIONS

- Further define "Program Support" and investigate what specific programs can help medical students maintain a sense of wellness.
- Compare first-year results to second years surveyed in the same academic year.
- Perform in-person interviews with medical students about their wellness to obtain first-person responses with more detail.
- Further delineate what would improve medical student wellness.