

# Integrating Wellness Activities into Courses Promotes Pharmacy Students’ Resilience

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### Take-Home Points

- A ten-week wellness intervention (consisting of mindfulness sessions and weekly wellness messages) was offered to first-year (P1) and second-year (P2) Pharmacy students to promote wellness.
- Study participants (n=30) showed a statistically significant increase in resilience scores following the 10-week intervention (Figure 1).
- In contrast, no significant reduction in perceived stress score was observed among participants (Figure 1).
- 76.35% (113/148) of students found the in-class mindfulness sessions helpful (Table 1).
- 68.92% (102/148) of students indicated that the content shared in wellness messages was relevant and helpful (Table 1).
- 73.42% (116/158) indicated that the value of time spent on mindfulness in class was either an efficient use of class time or helped them stay focused and attentive (Table 1).

### Study Objective

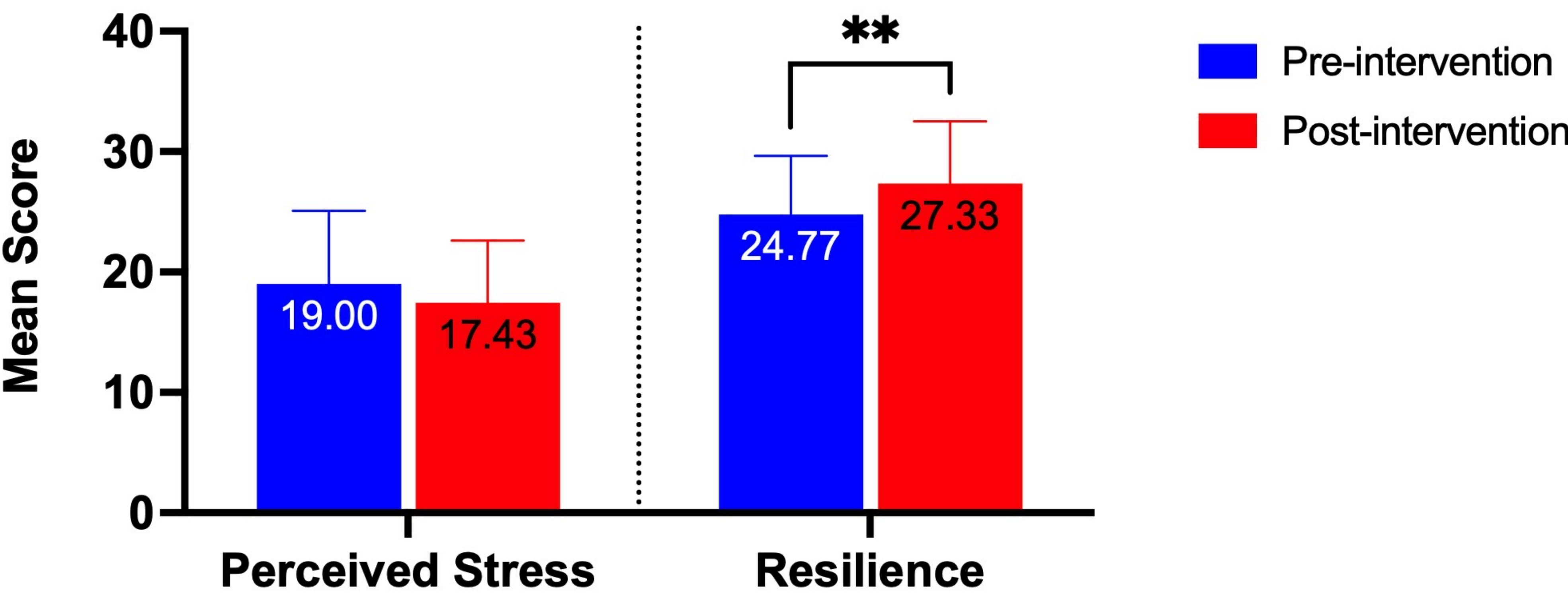
- Stress negatively impacts academic performance as well as the physical and mental health of pharmacy students<sup>1</sup>.
- Offering wellness resources, such as mindfulness exercises, to students has been shown to improve student wellbeing<sup>2-4</sup>.
- This study assessed **the effect of a 10-week wellness intervention-composed of in-class mindfulness sessions and weekly wellness messages on pharmacy students’ resilience and perceived stress.**

### Methods

- Study Population:** Pharmacy students enrolled in the courses *Introduction to Pharmaceutical Sciences* (P1) and *Principles of Drug Action II* (P2) in the Fall of 2022 and 2023 were invited to participate. The study was approved by Drake University IRB (#2021-22015).
- Ten-week Wellness Intervention:** Students were offered the following resources to improve their physical, emotional, and social wellness.
  - Mindfulness Exercises, twice a week** - At the beginning of every class session.
  - Weekly Wellness Messages** – Related to self-care, stress management, optimism, grit, growth mindset, and resilience.
- Assessment (Pre-Post Design):** Before and after ten weeks of exposure to wellness resources, students’ perceived stress scores and resilience scores were measured using the following instruments.
  - 10-item **Perceived Stress Scale (PSS-10)**
  - 10-item **Connor-Davidson Resilience Scale (CD-RISC-10)**
- Statistical Analysis:** The Wilcoxon matched-pairs signed rank test was used to compare the mean perceived stress and resilience scores pre- and post-intervention. A p-value less than 0.05 was considered statistically significant.

### Results

**Figure 1.** Effect of the 10-week wellness intervention (in-class mindfulness sessions and weekly wellness messages) on Pharmacy students’ (P1 and P2) Perceived Stress and Resilience. The scores were expressed as Mean ± SD (n=30) with a maximum score of 40. \*\*p<0.05 vs. Pre-intervention



**Table 1.** Pharmacy students’ perceptions of the in-class mindfulness sessions and weekly wellness messages collected via the end-of-the-semester course evaluation.

| Questions   | Percent of Students’ Agreement (Response Rate) |
|---|--|
| 1. I found the <b>mindfulness sessions</b> before the class helpful.  | <b>76.35%</b> (113/148)                        |
| 2. I found the content shared in <b>weekly wellness messages/emails</b> relevant and helpful.   | <b>68.92%</b> (102/148)                        |
| 3. Which of the following statements best describes your opinion on the <b>value of time spent on mindfulness sessions</b> (~3 minutes/lecture) in class? |  |
| a) <b>It helped me stay focused and attentive in class</b>  | <b>28.48%</b> (45/158)                         |
| b) <b>It was an efficient use of class time</b>   | <b>44.94%</b> (71/158)                         |
| c) I did not gain anything from the activity  | 24.05% (38/158)                                |
| d) It distracted me from the material to be covered   | 2.53% (4/158)                                  |
| 4. <b>Have you started practicing mindfulness outside of class?</b>   |  |
| a) <b>Yes</b>   | <b>44.16%</b> (68/154)                         |
| b) No   | 5.84% (86/154)                                 |
| 5. If you answered yes to the previous question, <b>how frequently do you do mindfulness exercises outside of the class?</b>                              |  |
| a) <b>1-2 times per week</b>  | <b>62.86%</b> (44/70)                          |
| b) 3-5 times per week   | 22.86% (16/70)                                 |
| c) 6-7 times per week (~once per day)   | 10.00% (7/70)                                  |
| d) 8-13 times per week (more than once per day)   | 4.29% (3/70)                                   |

### Conclusion

- Integrating wellness activities (in-class mindfulness sessions and wellness messages outside of class) into the course content can foster well-being by enhancing students’ resilience and promoting classroom engagement.
- Encouraging and supporting faculty members to embed wellness interventions in their courses could effectively improve student wellness.
- Limitation:** Low participation in the perceived stress and resilience score arm of this study. Thus, changes in perceived stress and resilience scores could not be rigorously assessed.
- Future studies will measure perceived stress and resilience levels in a larger student population, including students in other health professions, to assess the effect of mindfulness sessions and wellness messages.

### References

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