

# A Ten-Week Wellness Intervention Promotes Pharmacy Students' Well-being

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## Take-home Points

- A ten-week wellness intervention (composed of mindfulness exercises and weekly wellness messages) was offered to first-year (P1) and second-year (P2) Pharmacy students to promote wellness.
- P1 students demonstrated a statistically significant improved resilience score following the 10-week intervention. (Figure 2)
- Neither P1 nor P2 students demonstrated a statistically significant reduction in their perceived stress score (PSS). (Figure 1)
- 75% (30/40) of P1 students and 71% (27/38) of P2 students found the in-class mindfulness sessions helpful to stay focused in class or as an efficient use of class time. (Table 1)
- 50% (20/40) of P1 students and 42% (16/38) of P2 students indicated that they started practicing mindfulness outside of classes. (Table 1)
- 68% (19/28) of P1 students and 76% (40/53) of P2 students indicated that the content shared in wellness messages was relevant and helpful (Table 2).

## Study Objective

- Offering wellness resources (e.g., mindfulness exercises, wellness messages) to students has been shown to improve student well-being<sup>1,2,3</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 students) and *Principles of Drug Action II* (P2 students) in the Fall of 2022 were invited to participate. The study was approved by Drake University IRB (Proposal #: 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.
  - Wellness Messages** (Weekly) - Related to selfcare, 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:** Wilcoxon matched-pairs signed rank test was used to compare the mean PSS 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 Score (PSS). PSS scores were expressed as Mean  $\pm$  SD (sample size, n) with a maximum score of 40.

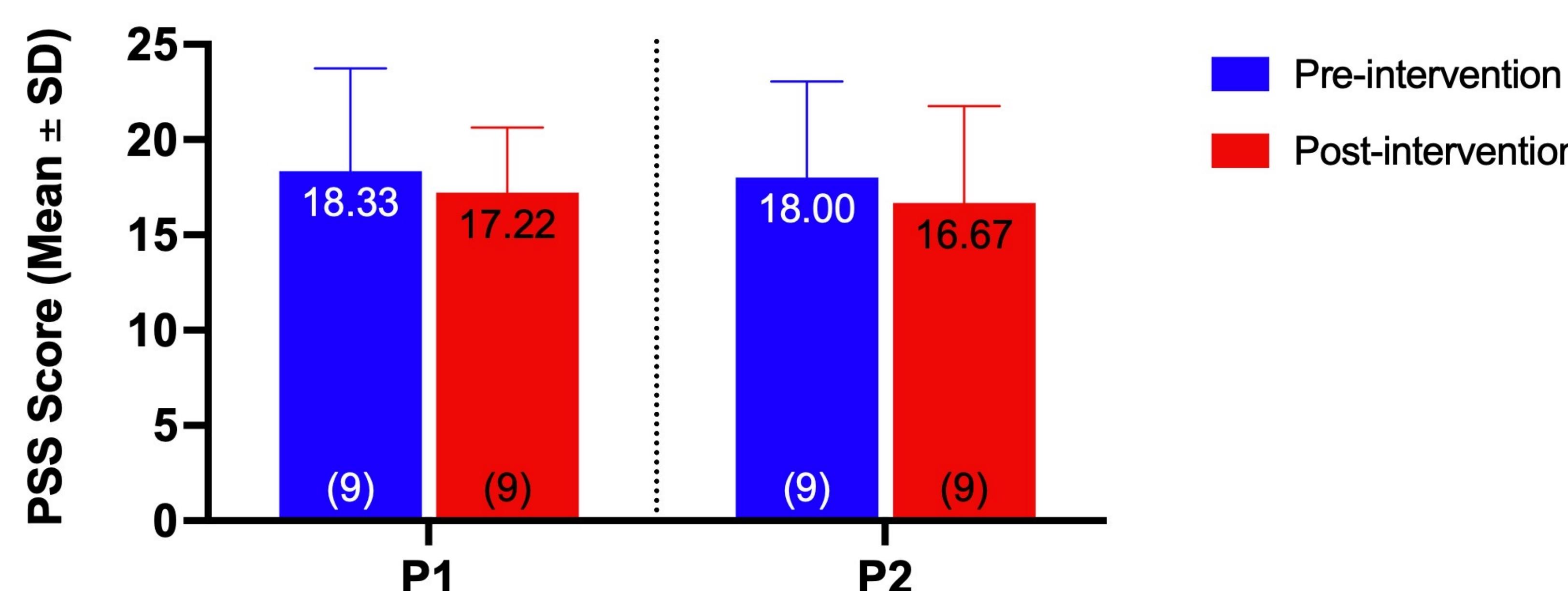


Figure 2. Effect of the 10-week wellness intervention (in-class mindfulness sessions and weekly wellness messages) on Pharmacy students' (P1 and P2) Resilience Score. Resilience scores were expressed as Mean  $\pm$  SD (sample size, n), with a maximum score of 40. \*p<0.05 vs. Pre-intervention

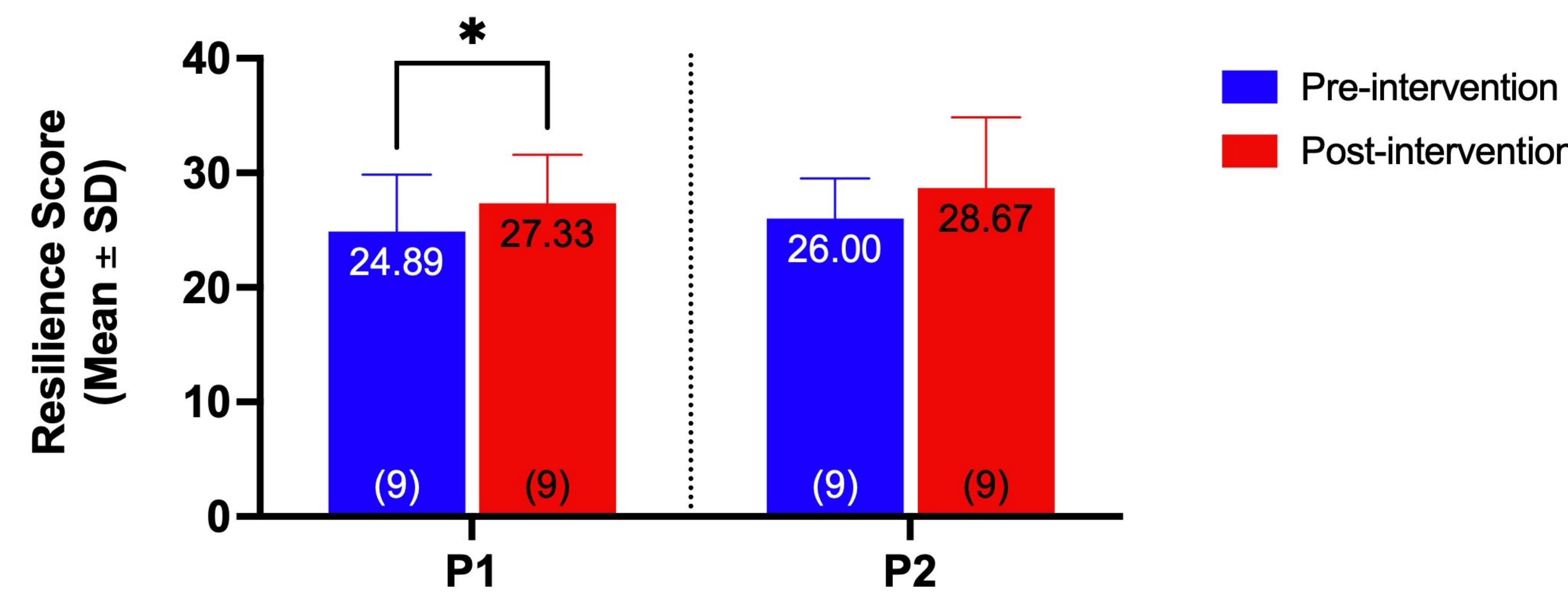


Table 1. Pharmacy students' perceptions of the in-class mindfulness sessions – collected via the end-of-the-semester course evaluation

1. Which of the following statements best describes your opinion on the value of time spent on mindfulness sessions (~3 minutes/lecture) in class?	Percent of Students Agree or Strongly Agree (n)	
	P1 Response rate: 86.96% (n=40/46)	P2 Response Rate: 55.07% (n=38/69)
a) It helped me stay focused and attentive in class	30% (12)	23.68% (9)
b) It was an efficient use of class time	45% (18)	47.37% (18)
c) I did not gain anything from the activity	25% (10)	26.32% (10)
d) It distracted me from the material to be covered	0% (0)	2.63% (1)
2. Have you started practicing mindfulness outside of class?		
a) Yes	50% (20)	42.11% (16)
b) No	50% (20)	57.89% (22)

## Results (continued)

Table 2. Pharmacy students' perceptions on the 10-week wellness intervention – collected through the end-of-the-semester course evaluation.

	Percent of Students Agree or Strongly Agree (n)	
	P1 Response rate: 60.87% (n=28/46)	P2 Response Rate: 76.81% (n=53/69)
1. I found the mindfulness sessions before the class helpful.	78.57% (22)	84.91% (45)
2. I found the content shared in weekly wellness messages relevant and helpful.	67.86% (19)	75.47% (40)

## Conclusion

- Offering mindfulness sessions in classrooms and sharing wellness messages promote student wellness indices, such as resilience.
- Most students (~68-85%) found the mindfulness sessions and wellness messages to be helpful.
- Encouraging and supporting faculty members to embed wellness interventions in their courses could effectively improve student wellness.
- Limitation:** Low participation in the PSS and resilience score arm of this study. Thus, changes in PSS 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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