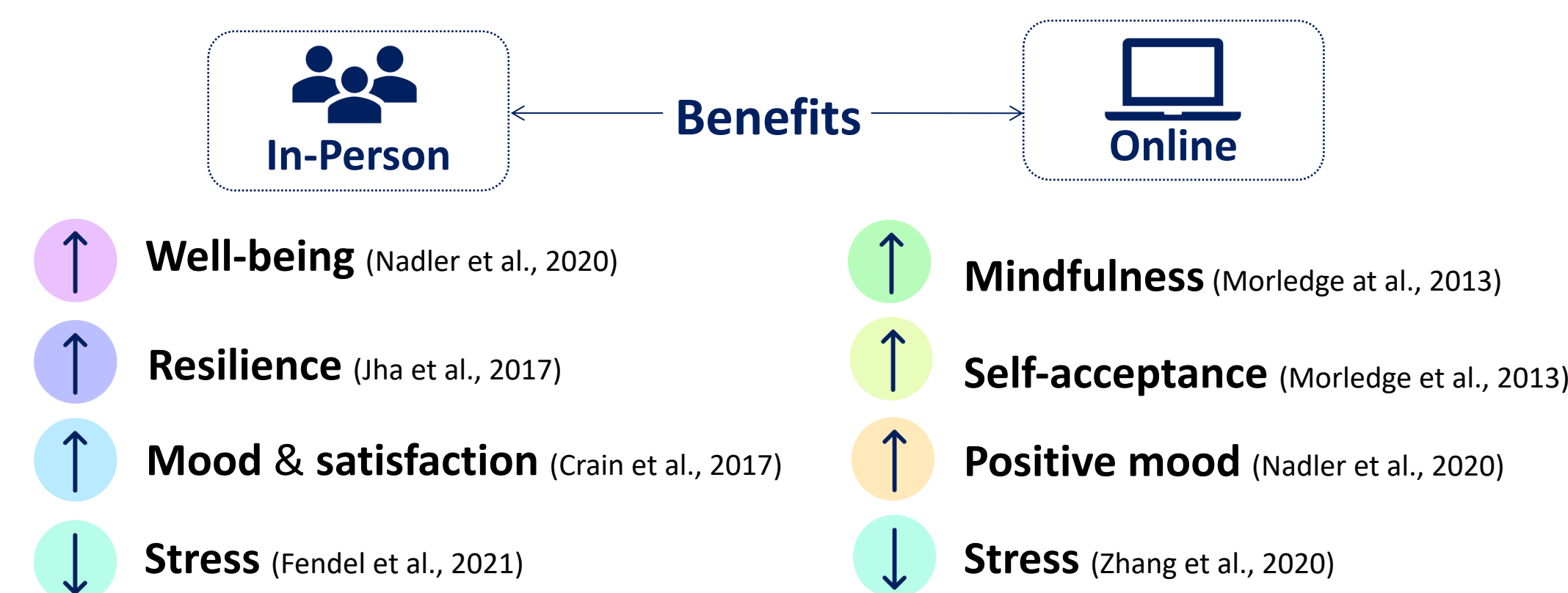


Abstract

The COVID-19 pandemic increased hardship for community dwelling adults. Online mindfulness-based interventions may offer adults a means to cope with stress, cultivate greater resilience and well-being. This study evaluated the effectiveness of an online mindfulness program designed to improve mindfulness, well-being, perceived stress, and resilience. Thirteen participants were recruited from an eight-week online mindfulness program. Six participants were followed across eight weeks through a presurvey, postsurvey, and eight weekly surveys. Results showed improvements in mindful awareness/acceptance and perceived stress, with significant improvements in well-being, resilience, and frequency of mindfulness practice, from one time/week up to four-six times/week. **Findings suggest online mindfulness may be a feasible intervention to influence habits and routines and serve as a coping strategy to promote well-being, resilience, and decrease stress.**

Background

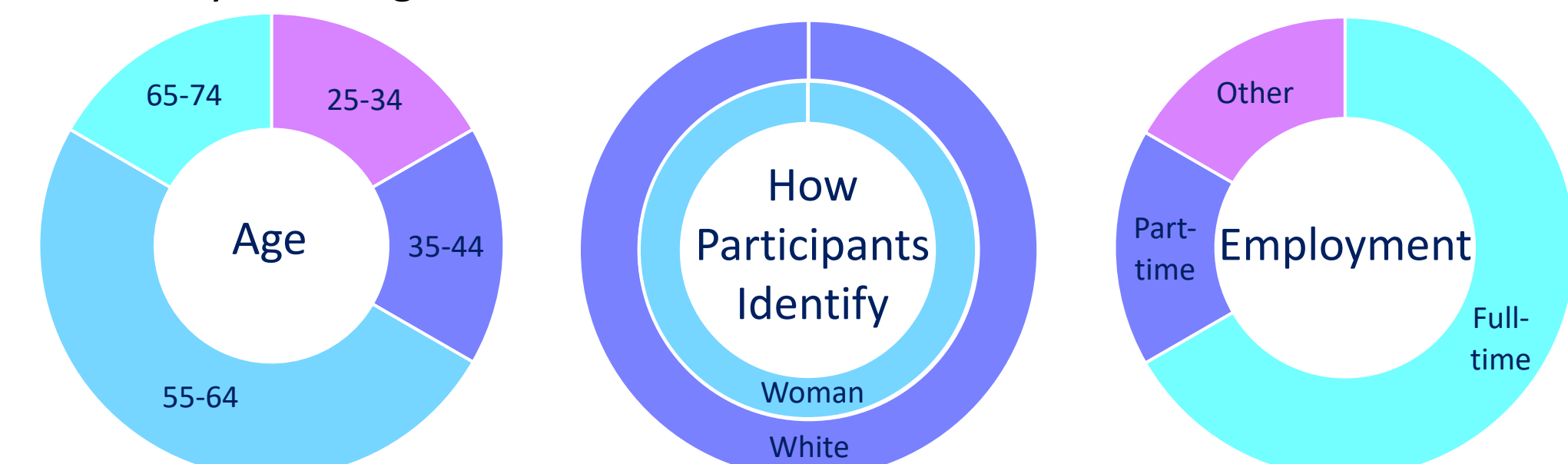
- **Mindfulness** is “paying attention in a particular way: on purpose, in the present moment, and nonjudgmentally” (Kabat-Zinn, 1994, p.4)



- More research needed to better understand impact of online mindfulness on quality of life and participation in meaningful occupations.
- **Purpose:** measure impact of eight-week online mindfulness program on overall well-being of adult participants
- **Aim 1:** identify and administer existing outcome measures to generate meaningful quantitative data about effectiveness of online program
- **Aim 2:** better understand effectiveness of program curriculum and instruction

Methodology

- IRB-approved program evaluation using pre/post and weekly surveys (N=6)
- Convenience sampling recruited from eight-week online mindfulness program
- **Criteria:** 18+, speaks English, U.S. resident; excluded if mindfulness instructor
- **Measures:** Philadelphia Mindfulness Scale, WHO-5 Well-Being Index, Perceived Stress Scale, Brief Resilience Scale
- Data analyzed using Friedman’s Test and Kendall’s W



Results

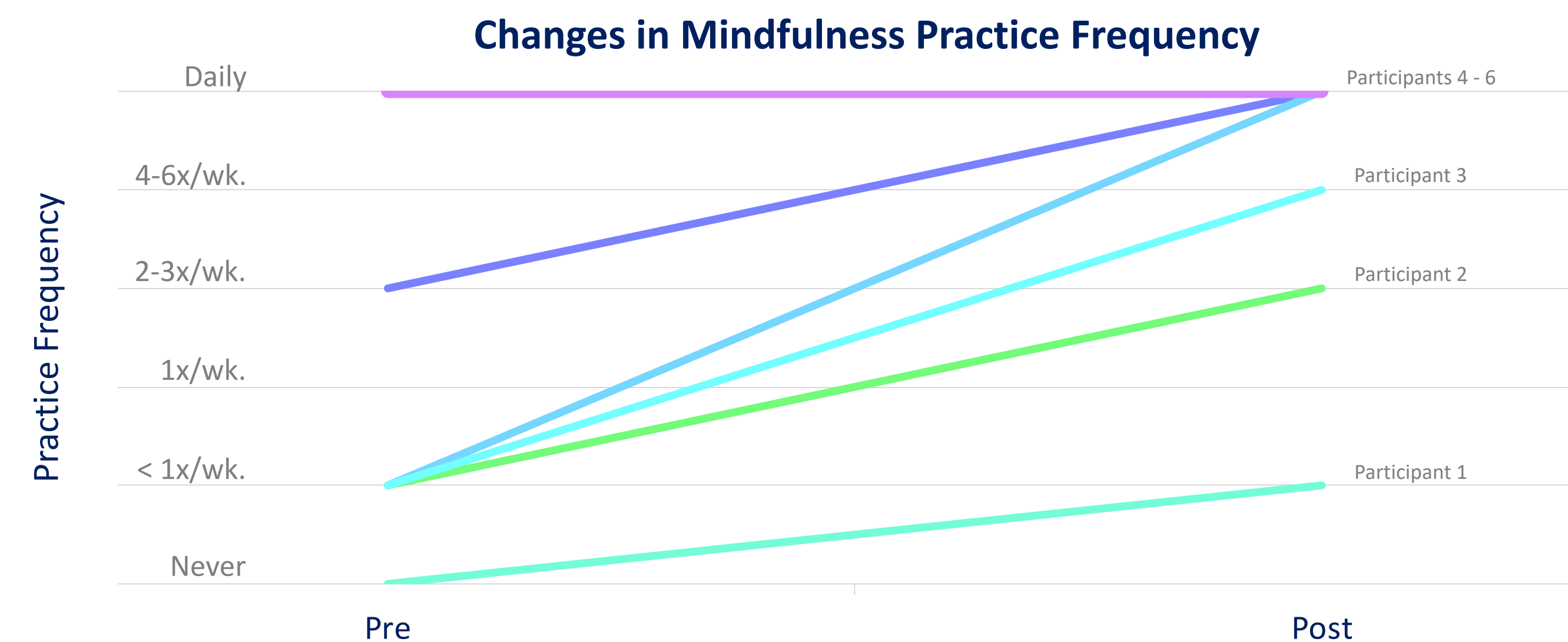


Figure 1. Self-reported frequency of practicing mindfulness before and after eight-week program with participant-level data. Statistically significant difference and large effect seen in mindfulness practice frequency, $\chi^2(1) = 5.00, p = 0.025$, Kendall’s W = 0.833.

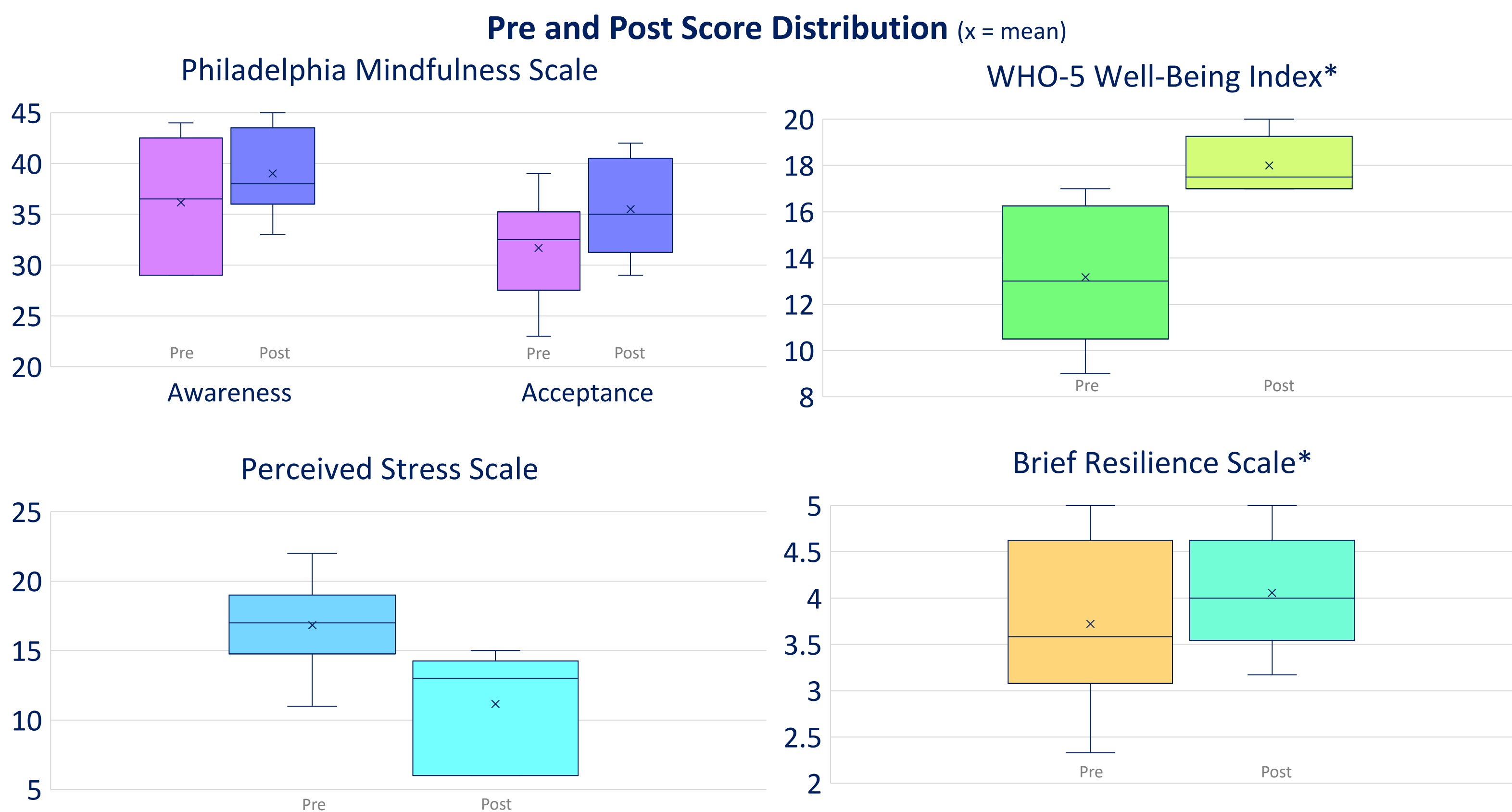


Figure 2. Participant mindfulness, well-being, perceived stress, and resilience scores before and after eight-week mindfulness program. Statistically significant difference in well-being, $\chi^2(1) = 5.00, p = 0.025$; Kendall’s W = 0.833 (large effect) and resilience $\chi^2(1) = 5.00, p = 0.046$; Kendall’s W = 0.667 (large effect). While not significant, perceived stress reduction showed moderate effect (Kendall’s W = 0.444).

Online Program Attendance and Weekly Research Participation

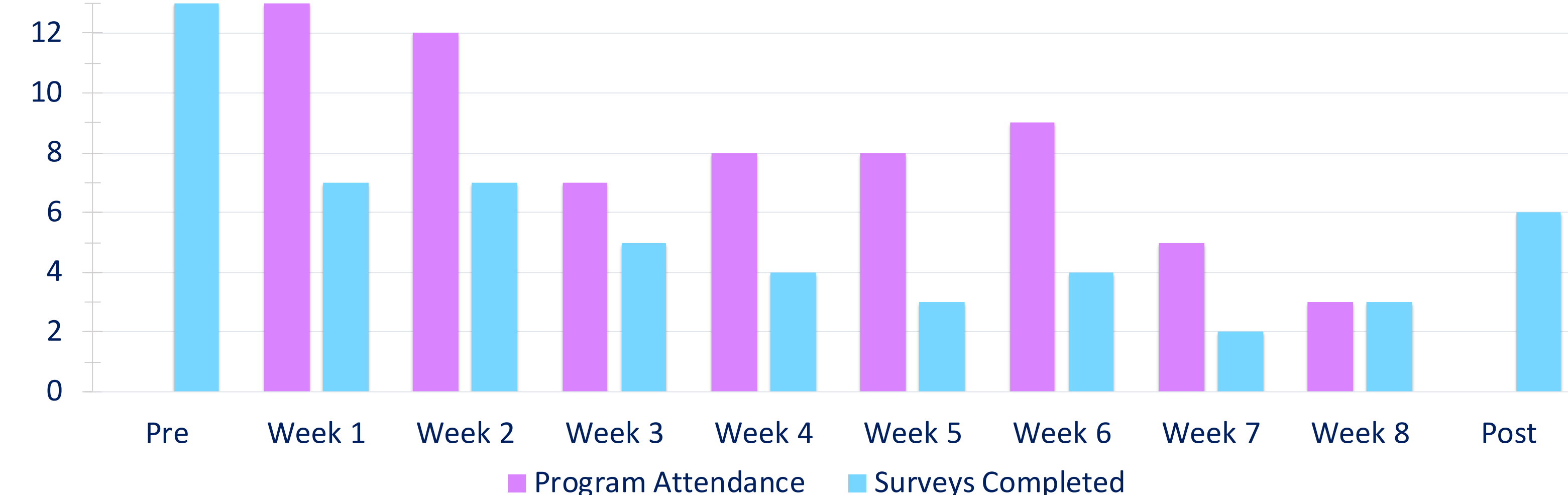


Figure 3. Number of sessions attended throughout eight-week program compared to number of surveys completed. Program ran from May - July 2021. COVID-19 mandates lifted in July 2021 may have influenced attendance and participation as seen by decline at week 7.

Discussion

- **Online mindfulness intervention may improve mindful awareness and acceptance, well-being, perceived stress, and resilience.**
- Increases in frequency of mindfulness practice suggest eight-week program may influence habits and routines.
- Results build on existing research supporting efficacy and accessibility of online mindfulness (Morledge et al., 2013; Nadler et al., 2020; Zhang et al., 2020).
- **Strengths:** valid and reliable outcome measures used; consultation with area experts to validate accuracy of results.
- **Limitations:** lifting COVID-19 restrictions may have influenced program attendance, research participation, and improvements observed; sample size, composition, and recruitment methods may limit generalizability.

Conclusion

- Improvements in mindfulness, well-being, stress, and resilience may support healthy coping, quality of life, and increase participation in meaningful occupations.
- Findings support utility of **online mindfulness as low-cost, effective intervention** for community-dwelling adults who cannot access in-person programs.
- Occupational therapy practitioners and doctoral students are well-suited to design and carryout community program evaluations.
- Further research needed to yield more robust and generalizable results.
- Future studies should be conducted using larger sample sizes, greater participant diversity, and control groups to test impact of historical bias.
 - Comparison study to examine equivalence of online and in-person programs.

References

Crain, T. L., Schonert-Reichl, K. A., & Roeser, R. W. (2017). Cultivating teacher mindfulness: Effects of a randomized controlled trial on work, home, and sleep outcomes. *Journal of Occupational Health Psychology, 22*(2), 138-152. <https://doi.org/10.1037/ocp0000043>

Fendel, J. C., Burkle, J. J., & Goritz, A. S. (2021). Mindfulness-based interventions to reduce burnout and stress in physicians: A systematic review and meta-analysis. *Academic Medicine, 96*(5), 751-764. <https://doi.org/10.1097/ACM.00000000000003936>

Jha, A. P., Morrison, A. B., Parker, S. C., & Stanley, E. A. (2017). Practice is protective: Mindfulness training promotes cognitive resilience in high-stress cohorts. *Mindfulness, 8*(1), 46-58. <https://doi.org/10.1007/s12671-015-0465-9>

Kabat-Zinn, J. (1994). *Wherever you go, there you are: Mindfulness meditation in everyday life*. Hyperion.

Morledge, T. J., Alexandre, D., Fox, E., Fu, A. Z., Higashi, M. K., Kruzikas, D. T., Pham, S. V., & Reese, P. R. (2013). Feasibility of an online mindfulness program for stress management - A randomized, controlled trial. *Annals of Behavioral Medicine, 46*(2), 137-148. <https://doi.org/10.1007/s12160-013-9490-x>

Nadler, R., Carswell, J. J., & Minda, J. P. (2020). Online mindfulness training increases well-being, trait emotional intelligence, and workplace competency ratings: A randomized waitlist-controlled trial. *Frontiers in Psychology, 11*, 1-19. <https://doi.org/10.3389/fpsyg.2020.00255>

Zhang, Y., Xue, J., & Huang, Y. (2020). A meta-analysis: Internet mindfulness-based interventions for stress management in the general population. *Medicine, 99*(28), 1-11. <http://dx.doi.org/10.1097/MD.00000000000020493>

Contact

Katelyn Loring: Katelyn.Loring@tufts.edu;
Mary Barnes: Mary.Barnes@tufts.edu

Acknowledgement

Special thanks to Calmer Choice (CalmerChoice.org) for their support and guidance on this project and Kyle Monahan, M.S., Tufts Data Lab for his data science expertise.



Take a photo to learn more about this research project. <https://tinyurl.com/yr4f8at2>