

A Single-Site Research on the Impact of Meditation on the Operating Room Personnel During the COVID-19 Pandemic

Rachel Miller Abanilla, MSN, RN, CNOR; Stephenie Wright, BSN, RN, CNOR; Selena Banda, CST
Houston Methodist West Hospital

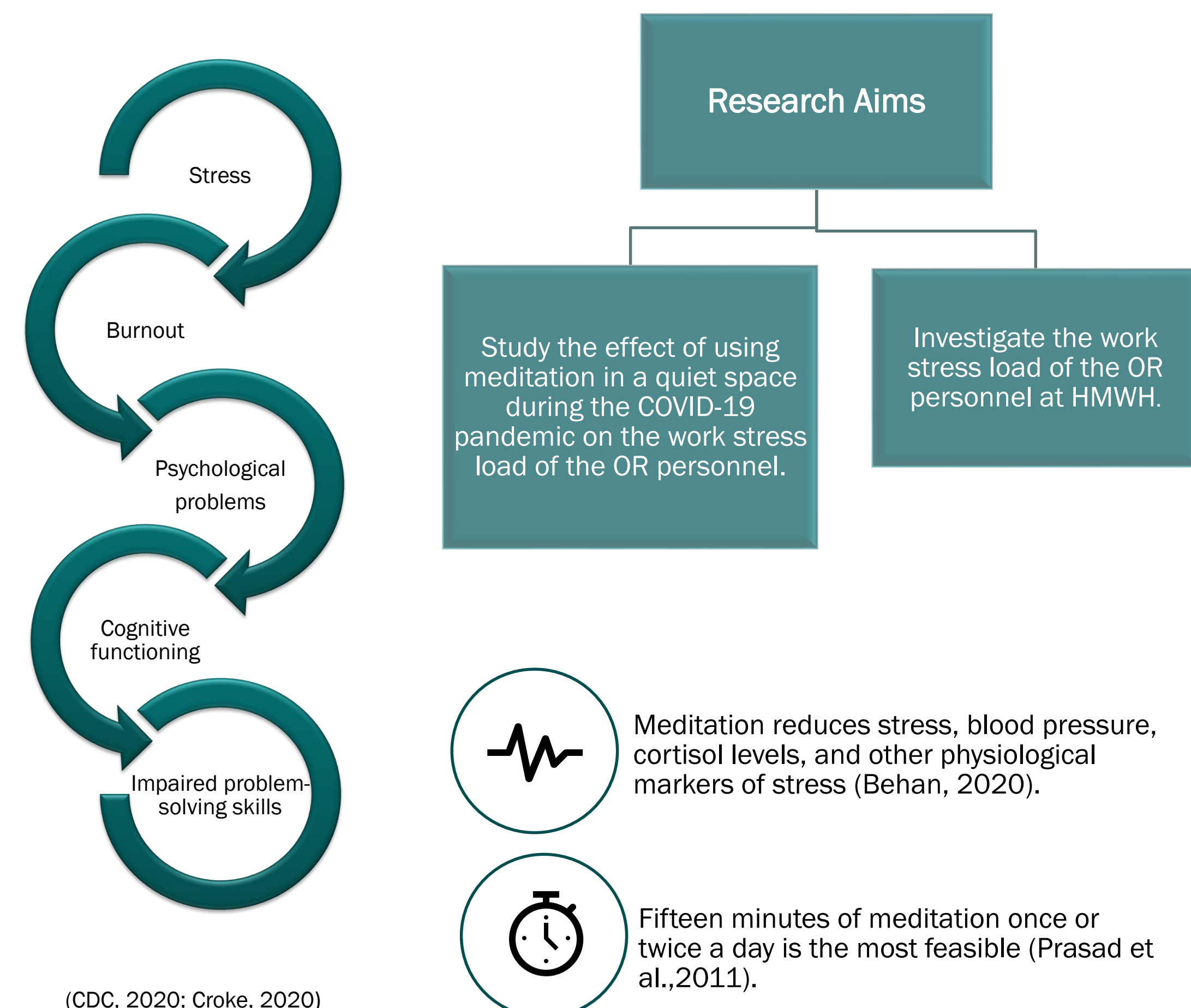
Background/Introduction

Scarce information of COVID-related stress for surgical operating room (OR) personnel during the COVID-19 pandemic.

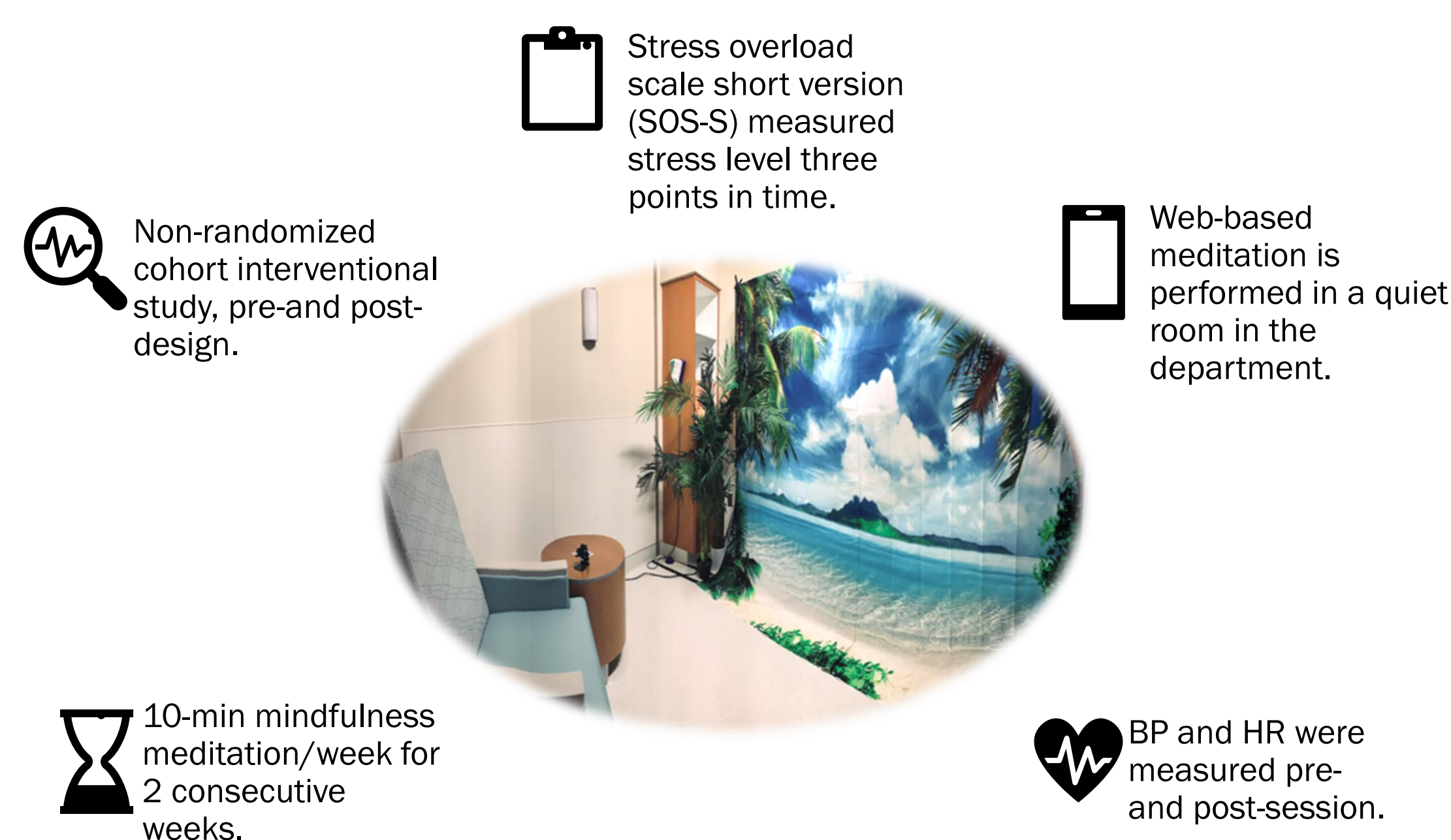
Study in Shanghai revealed increased anxiety and depression after the COVID-19 outbreak with the appearance of mental health problems among frontline workers (Xu et al., 2020).

CDC (2020) recommended meditation and breathing exercises to cope with the stress that healthcare personnel and first responders experience during the pandemic.

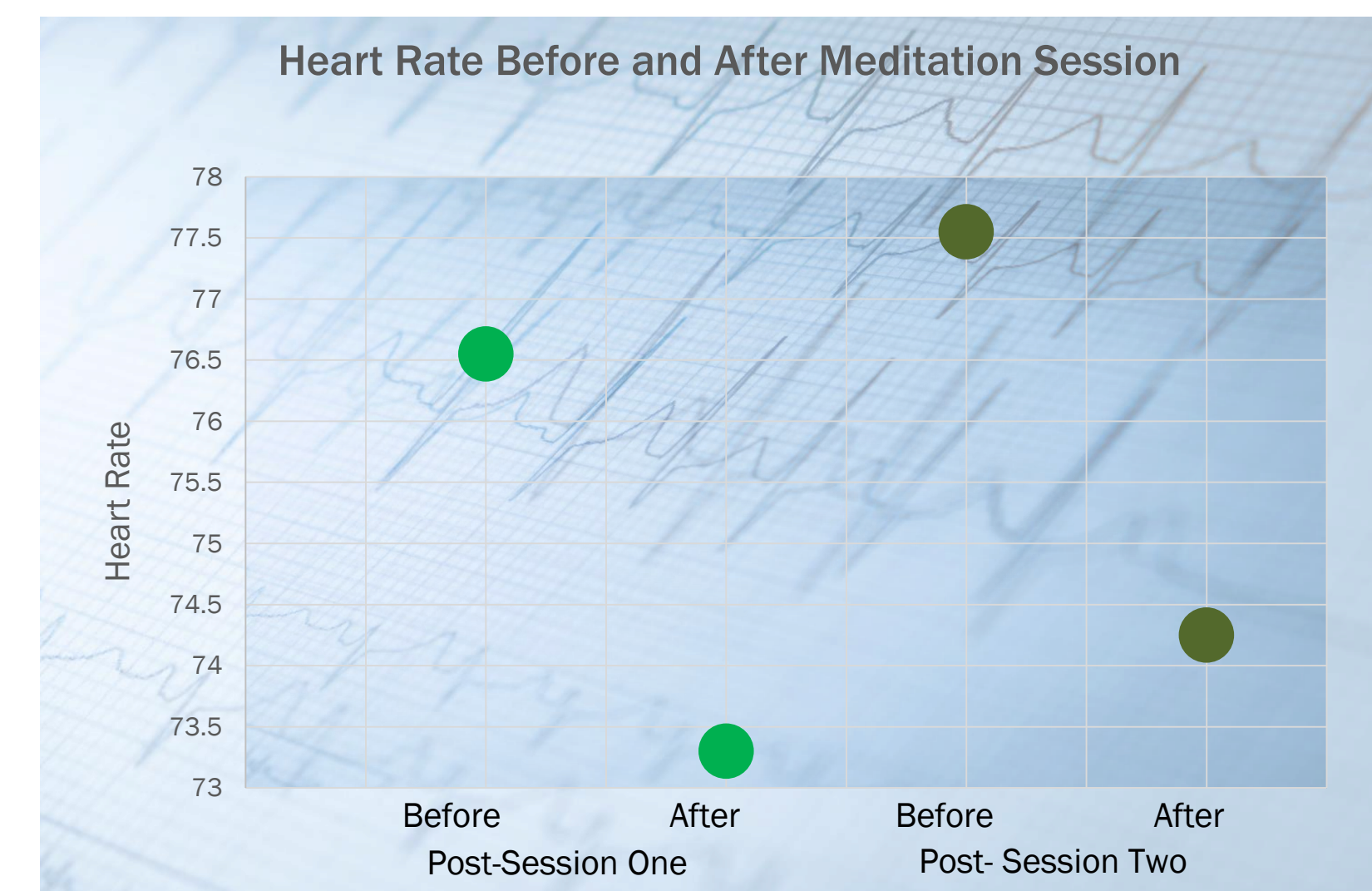
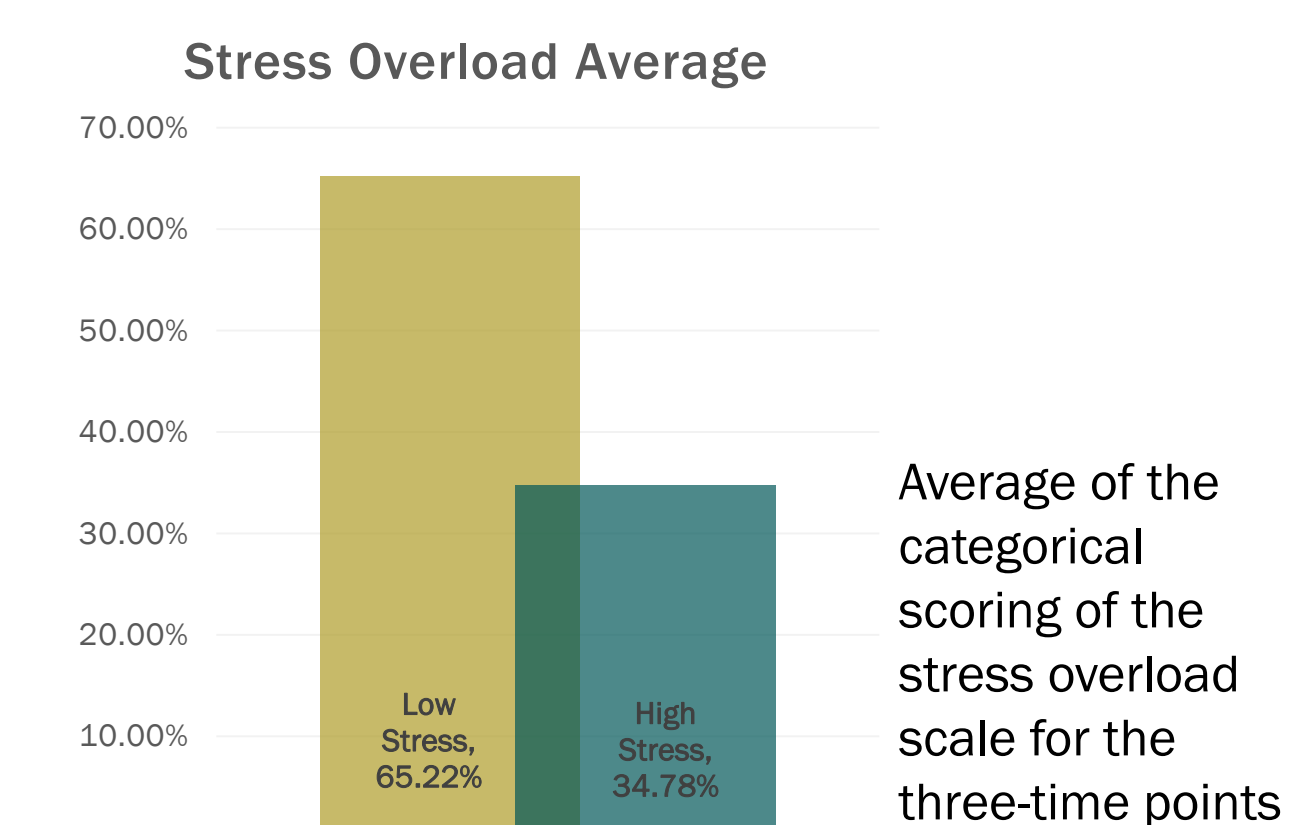
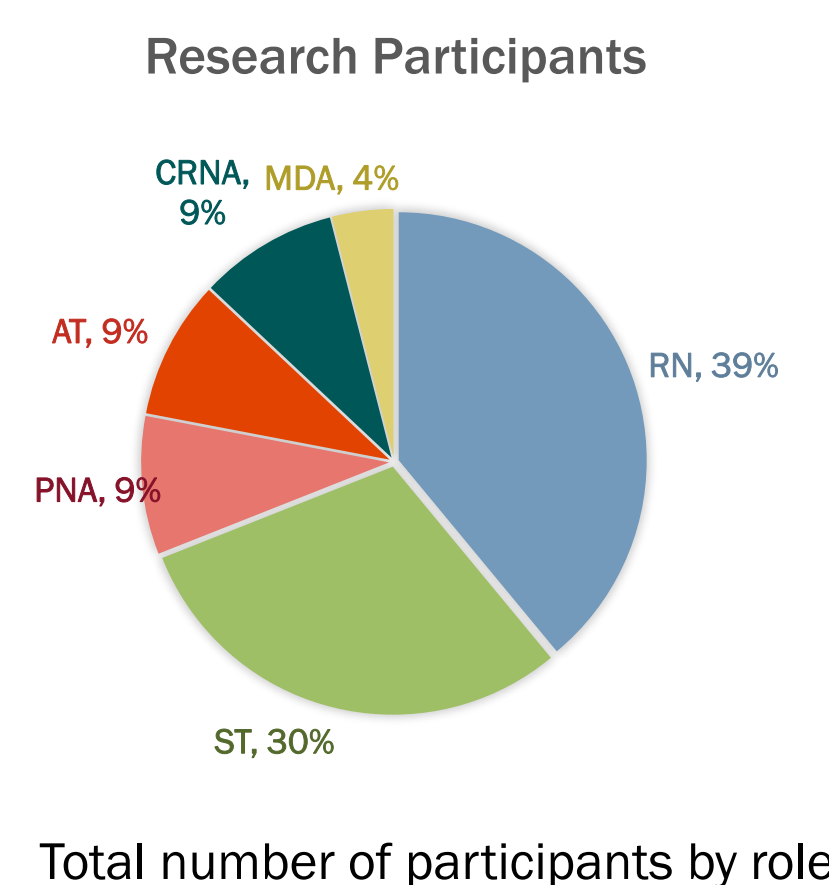
Purpose/Objectives



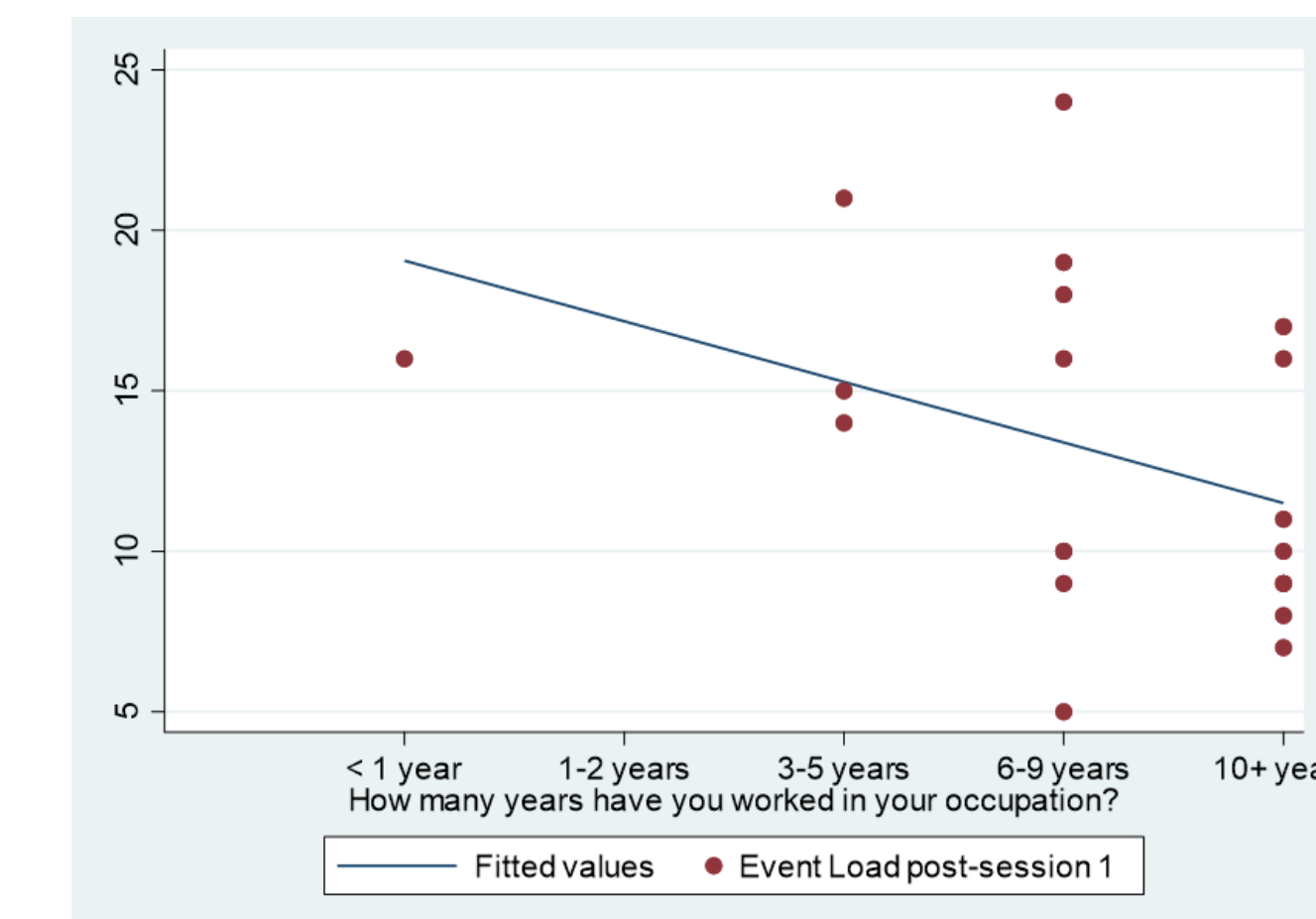
Design/Methodology



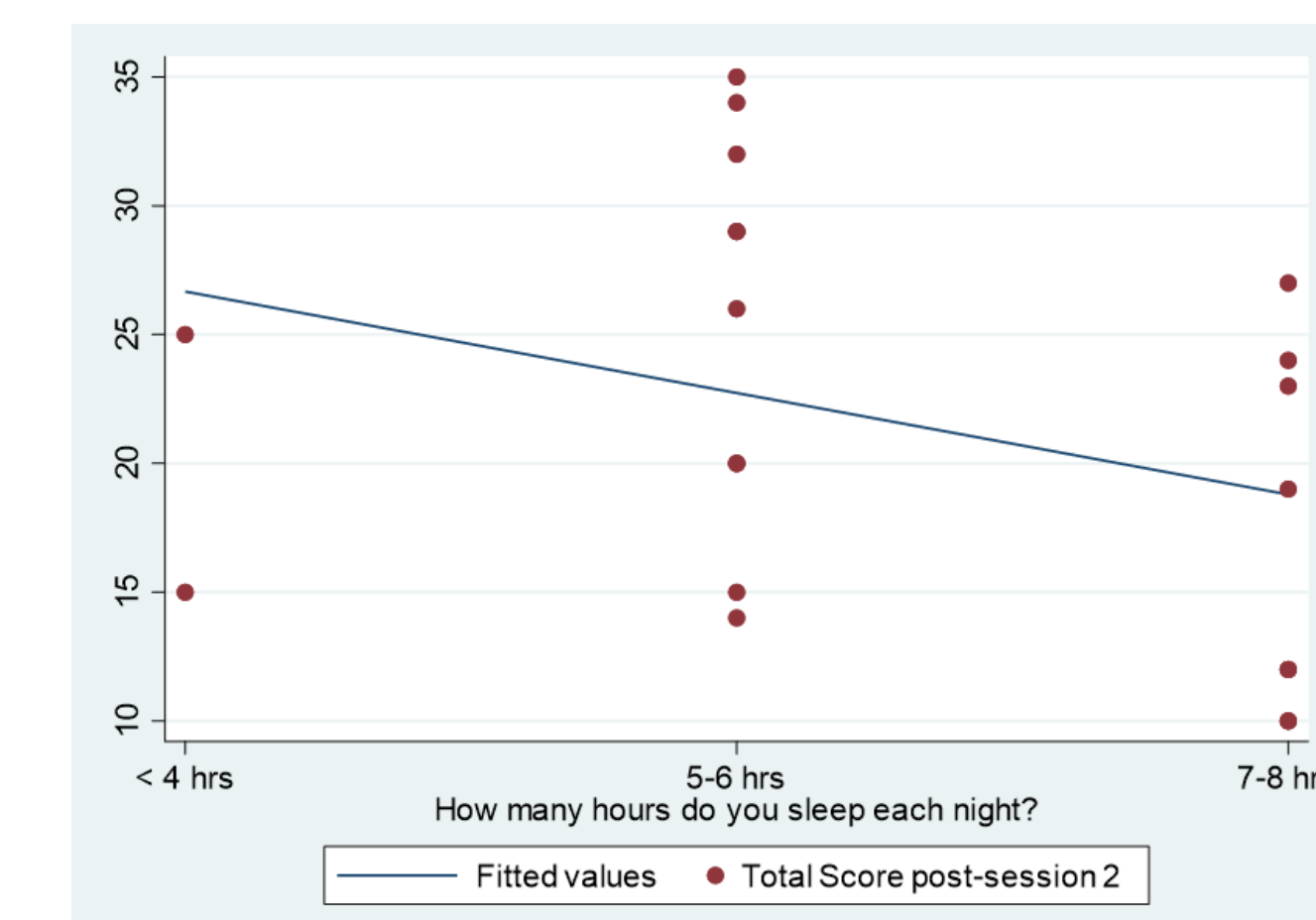
Result



Heart rate was statistically significantly different between after and before in post-session 2 (p-value =0.0192).



Correlation between years in occupation and event load in post-session one showing a decreasing pattern which means with more experience in the OR, the Stress Overload Scale score was reduced. It is marginally statistically significant p-value=0.0742.



Correlation between hours of sleep and total score in post-session two showing a decreasing pattern which means if the participant slept more hours the Stress Overload Scale Score was reduced. It was marginally statistically significant p-value=0.0755

Result/Implications

More than half of the OR personnel in the study have low stress, which means they reported few demands and adequate resources.

Determining the stress level of the staff assists the management and organization to implement stress-reduction interventions for the psychological well-being of the staff.

The 10-minute guided mindful awareness meditation was selected for its feasibility, considering the workflow and schedule of the staff in the operating room.

Decrease in the participants' heart rate after the second 10-minute mindful awareness meditation which is consistent with another study by Moridani (2021) who found a decrease in the mean heart rate during meditation. Although the results showed a decrease in blood pressure after meditation, it is not statistically significant compared to the decrease in heart rate.

Meditation is an effective technique to decrease heart rate in a state of stress as it is very accessible and easy to learn, therefore it can be used by operating room personnel as a relaxation exercise whenever they feel stressed.

Future Actions

Stress Overload Scale -Short can be used to measure the stress overload of the healthcare workers

Use a different tool to measure the effect of stress-reduction techniques.

The meditation time and frequency should be increased to achieve its desired effects.

A larger sample size should be considered to provide more accurate values and relevance of findings.

References

- Behan, C. (2020). The benefits of meditation and mindfulness practices during the time of crisis such as COVID-19. *Irish Journal of Psychological Medicine*, 1-3. Advance online publication. <https://doi.org/10.1017/ipm.2020.38>
- Centers for Disease Control and Prevention. (2020). *Healthcare personnel and first responders: How to cope with stress and Coronavirus Disease 2019 (COVID-19)*. Retrieved August 14, 2020, from <https://www.cdc.gov/coronavirus/2019-ncov/hcp/mental-health-healthcare.html>
- Croke, L. (2020). Organizational and personal strategies to support well-being and address burnout. *AORN Journal*, 112(2), P8-P9. <https://doi.org/10.1002/aorn.13154>
- Moridani, M. K., Yousef, P., & Sohi, A. S. (2021). The effect of meditation on regulation of heart rate. *American Journal of Biomedical Science & Research*, 12(2). <https://doi.org/10.34297/AJBSR.2021.12.001736>
- Prasad, K., Wahner-Roedler, D.L., Cha, S.S., & Sood, A. (2011). Effect of a single-session meditation training to reduce stress and improve quality of life among health care professionals: a "dose-ranging" feasibility study. *Alternative Therapies in Health & Medicine*, 17(3), 46-49. Houston Methodist library databases.
- Xu, J., Xu, Q. H., Wang, C. M., & Wang, J. (2020). Psychological status of surgical staff during the COVID-19 outbreak. *Psychiatry Research*, 288(112955). <https://doi.org/10.1016/j.psychres.2020.112955>

Acknowledgments

Thank you to HMW OR Leadership Team for the support.