How Mandating 15 Minute Breaks Decreases Stress and Anxiety for Intraoperative Nurses

Hannah Chiu, BS, Dilmanpreet Gill, BS., Baylie Hall, BS.
Shermel Edwards-Maddox, MSN, RN, CNE, RN-BC, Kelle Huong Phan, DNP, RN, NNP-BC



COLLEGE of NURSING

Background

Perioperative nurses who are responsible for the care and treatment of operating room patients are more likely to experience anxiety and stress. It has been found that 70.3% of nurses are in a state of job stress caused by emotional exhaustion and depersonalization, which has a negative effect on workplace efficiency. Implementing microbreaks was seen to be beneficial to the surgical team, allowing time to stretch, reduce fatigue, and decrease discomfort. Multiple studies have found that taking breaks during shifts, provided perioperative nurses with a mental rest to decrease stress. 1-4

PICOT Question

For intraoperative nurses, what is the effect of mandating 15 minute breaks between operations on the stress and anxiety levels of intraoperative nurses compared with intraoperative nurses who do not have mandated 15 minute breaks in between operations?



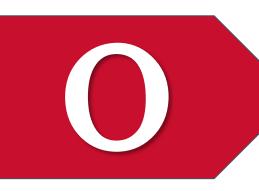
Intraoperative Nurses



Mandated 15 minute breaks



Intraoperative Nurses that do not receive mandated 15 minute breaks



Decreased stress and anxiety levels

Literature Search

Databases: CINAHL Complete, PubMed

Key Terms: perioperative nurses' stress, anxiety in OR, perioperative nurse mentality, shift work breaks, shift work stress

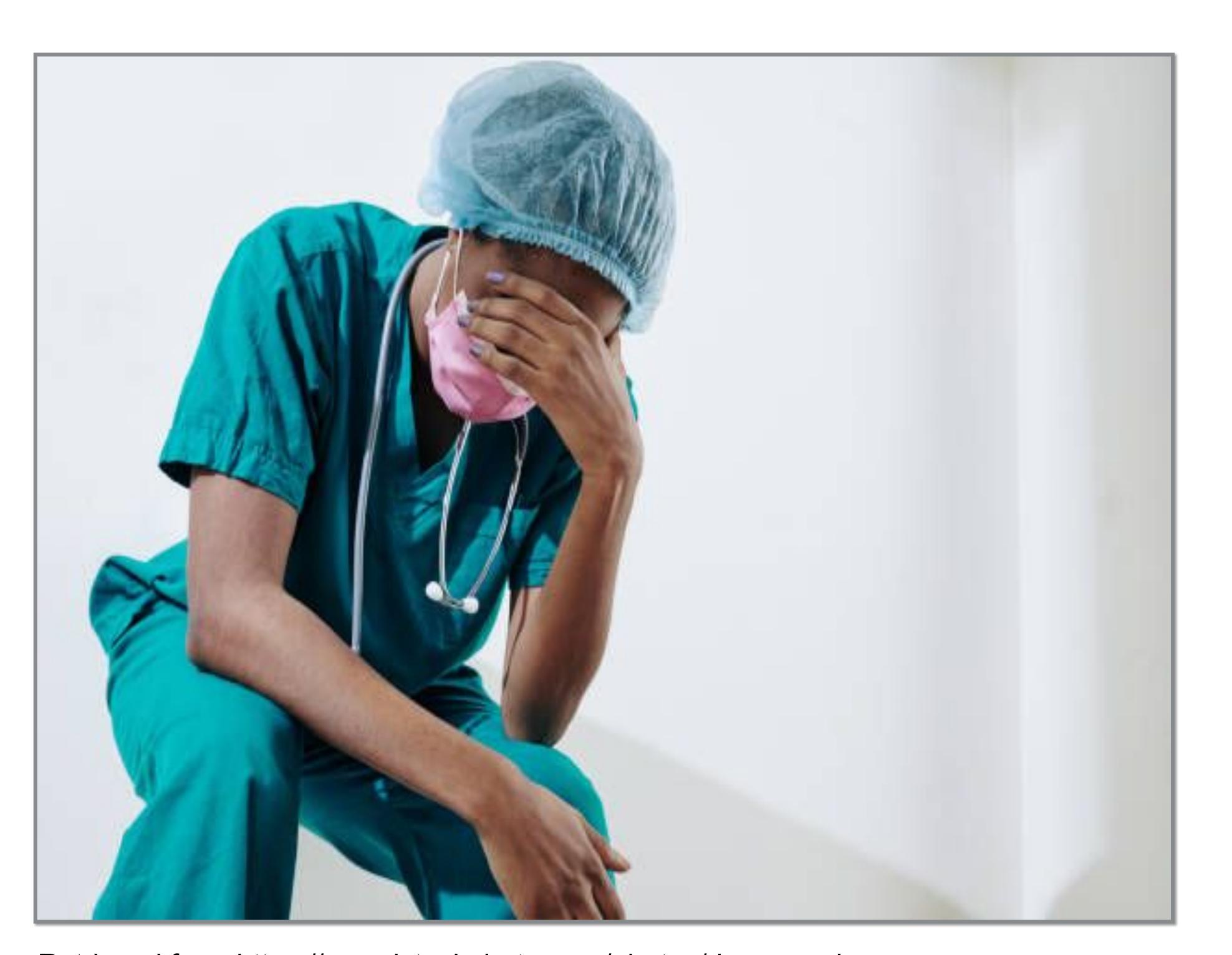
Article Selection Criteria:

- 1. Published between 2017 and 2022
- 2. Published in English
- 3. Published in a scholarly journal
- 4. Aligns with research question
- 5. Includes the population (Perioperative nurses)
- 6. Intervention related to stress levels (breaks during shifts)



Synthesis of Findings

- → 12 hour perioperative nursing shifts have been associated with fatigue and burnout for nurses, causing a significant decrease in their mental health. 1,2,5
- → Microbreaks have been seen to improve mental health of perioperative nurses by 88%. 3,6,7
- → In order to reduce perioperative stress, precautions should be taken, such as 15 minute breaks, to provide support to perioperative nurses.^{2,6}



Retrieved from https://www.istockphoto.com/photos/depressed-nurse

Decision to Change

- → The intervention chosen is mandating 15-minute breaks for intraoperative nurses.
- → A considerable amount of research has shown that 15-minute breaks contribute to reduced stress levels in intraoperative nurses.
- → The lack of mandated breaks for intraoperative nurses has been linked to increased stress and burnout levels, which has led to decreased overall quality of health.

Evaluation

Goals: By the end of the 12-month implementation period:

† Mandated 15 minute breaks for intraoperative nurses

↓ Anxiety and stress associated with intraoperative nursing

Measurement: The Depression and Anxiety Stress Scale, known as the DASS21 Questionnaire, measures the adverse mental states and depression, anxiety, and stress in adults. Each of the DASS-21 scales has 7 questions divided into subscales that contain similar content.⁸ The 3 scales assess for the following:

- → Depression scale: inertia, anhedonia, dysphoria, hopelessness, lack of interest/involvement, devaluation of life, and self-deprecation.⁸
- → Anxiety scale: autonomic arousal, subjective experience of anxious affect, skeletal muscle effect, and situational anxiety.⁸
- → Stress scale: difficulty relaxing, irritable/over-reactive, impatience, nervous arousal, and being easily upset/agitated.⁸

	Depression	Anxiety	Stress
Normal	0-9	0-7	0-14
Mild	10-13	8-9	15-18
Moderate	14-20	10-14	19-25
Severe	21-27	15-19	26-33
Extremely Severe	28+	20+	34+

Acknowledgements

We would like to thank the University of Houston's College of Nursing staff for all of the time and effort they have provided to their students. Thank you Dr. Kelle Huong-Phan and Professor Shermel Edwards-Maddox for your guidance throughout this project.

References

1. Gül, Ş., & Kılıç, S. T. (2021). Determining anxiety levels and related factors in operating room nurses during the COVID-19 pandemic: A descriptive study. *Journal of Nursing Management*, *29*(7), 1934–1945. https://doi.org/10.1111/jonm.13332

2. Li, N., Zhang, L., Li, X., & Lu, Q. (2021). The influence of operating room nurses' job stress on burnout and organizational commitment: The moderating effect of over-commitment. *Journal of Advanced Nursing*, 77(4), 1772–1782. https://doi.org/10.1111/jan.14725

3. Olynick, K., & Foran, P. (2021). To stand or not to stand? Implications of prolonged standing for perioperative nurses: A discussion paper. *Journal of Perioperative Nursing, 34*(4), e-45-e-48. https://doi.org/10.26550/2209-1092.1167

4. Mohammadi, F., Tehranineshat, B., Bijani, M., Oshvandi, K., & Badiyepeymaiejahromi, Z. (2021). Exploring the experiences of operating room health care professionals' from the challenges of the COVID-19 pandemic. *BioMed Central Surgery, 21*(1), 1–9.https://doi.org/10.1186/s12893-021-01437-3

5. Cho, H., & Steege, L. M. (2021). Nurse fatigue and nurse, patient safety, and organizational outcomes: systematic review. *Western Journal of Nursing Research*, *43*(12), 1157–1168.

https://doi.org/10.1177/2165079920983018

https://doi.org/10.1177/0193945921990892

6. Landis, T. T., Wilson, M., Bigand, T., & Cason, M. (2021). Registered nurses' experiences taking breaks on night shift: A qualitative analysis. *Workplace Health & Safety, 69*(6), 252–256.

7. Sagherian, K., McNeely, C. A., & Steege, L. M. (2021). Did rest breaks help with acute fatigue among nursing staff on 12-h shifts during the COVID-19 pandemic? A cross-sectional study. *Journal of Advanced Nursing*, 77(12), 4711–4721. https://doi.org/10.1111/jan.14944

8. Lovibond, S.H. & Lovibond, P.F. (1995). *Manual for the Depression Anxiety Stress Scales* [2nd. Ed.]. Sydney: Psychology Foundation. https://maic.gld.gov.au/wp-content/uploads/2016/07/DASS-21.pdf