# ANNIE TAYLOR DEE NURSING

# Reducing Non-Essential Noise in the Operating Room



## BACKGROUND

**Project Aim:** To implement strategies to reduce non-essential noise in the OR and reduce the stress and distraction levels of OR staff.

- OR noise frequently measures above World Health Organization recommended limits for hospitals.<sup>1</sup>
- Due to noise levels, OR staff are at risk for distraction, communication impairment, an increased rate of errors, poor performance, and increased stress.<sup>23</sup>
- OR noise is inevitable. However, evidence shows there are effective strategies to reduce non-essential noise.<sup>4</sup>
- Educating OR staff on reducing OR noise is paramount to mitigating its detrimental effects on staff.<sup>5</sup>

### METHODS

### Framework utilized to guide the project:

• Lewin's Theory of Planned Change<sup>6</sup>

### **Deliverables created:**

- Pre-survey for OR staff perceptions of current OR noise.
- PowerPoint educational presentation on the effects of excessive noise and strategies to combat it.
- Post-survey for OR staff perceptions of OR noise postimplementation of noise reduction strategies



<sup>1</sup>Arabaci, A., & Onler, E. (2021). The effect of noise levels in the operating room on the stress levels and workload of the operating room team. Journal of PeriAnesthesia Nursing, 36(1), 54–58. https://doi.org/10.1016/j.jopan.2020.06.024 <sup>2</sup>Mcleod, R., Myint-Wilks, L., Davies, S., & Elhassan, H. (2021). The impact of noise in the operating theatre: A review of the evidence. Royal College of Surgeons of England, 103, 83–87. https://doi.org/10.1308/rcsann.2020.7001 <sup>3</sup>Plaxton, H. (2017). Communication, noise, and distractions in the operating room: The impact on patients and strategies to improve outcomes. Operating Room Nurses Association of Canada, 35(2), 13–16. https://link-galecom.hal.weber.edu/apps/doc/A498943766/AONE?u=ogde72764&sid=summon&xid=97f7dcb1 <sup>4</sup>Katz, J. D. (2014). Noise in the operating room. *Anesthesiology*, 121, 894–898. https://doi.org/10.1097/ALN.000000000000319 <sup>5</sup>Bodin, J. E. (2022). Excessive noise in the operating room: Can it be improved? Journal of Perioperative Nursing, 35(2), Article 6. https://doi.org/10.26550/2209-1092.1194 <sup>6</sup>Shirey, M. R. (2013). Lewin's theory of planned change as a strategic resource. The Journal of Nursing

Administration, 43(2), 69–72. https://doi.org/DOI: 10.1097/NNA.0b013e31827f20a9

### In Interventions

This project will proceed as outlined:

- Step 1: Pre-survey for OR staff
- Step 2: PowerPoint educational presentation for OR staff
- Step 3: Noise level measurements obtained in random OR cases
- Step 5: Post-survey for OR staff for comparison to pre-survey results
- Step 6: Noise level measurements post-implementation for comparison to pre-implementation results

 
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IMPACTS

- non-essential noise. <sup>3 4 5</sup>
- distraction levels in OR staff.<sup>13</sup>
- ];piekq
- patient safety.<sup>1234</sup>





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• Step 4: Implementation of noise reduction strategies

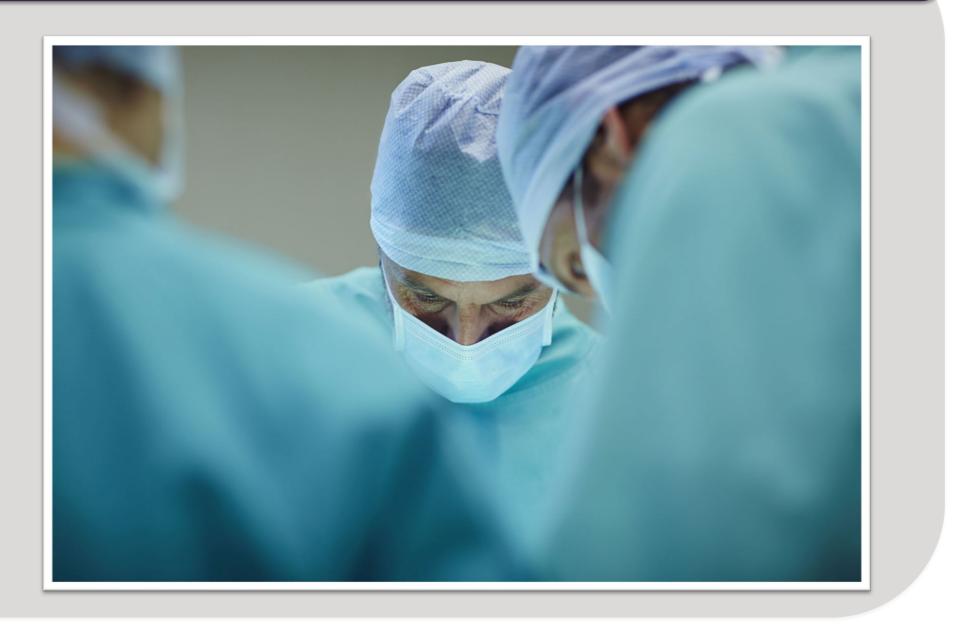
• Education on OR noise can empower staff to reduce

• Reducing non-essential noise can decrease stress and

• A quieter OR facilitates effective communication and







### CONCLUSIONS

• High noise levels continue to plague ORs.

• High noise levels can harm both patients and OR staff members.

 Continuing education on the effects and sources of OR noise is vital.

 Noise reduction methods have benefits beyond the OR.