

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.¹
- Due to noise levels, OR staff are at risk for distraction, communication impairment, an increased rate of errors, poor performance, and increased stress.^{2,3}
- OR noise is inevitable. However, evidence shows there are effective strategies to reduce non-essential noise.⁴
- Educating OR staff on reducing OR noise is paramount to mitigating its detrimental effects on staff.⁵

METHODS

Framework utilized to guide the project:

- Lewin's Theory of Planned Change⁶

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 post-implementation of noise reduction strategies

REFERENCES

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- ³Plaxton, 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-gale-com.hal.weber.edu/apps/doc/A498943766/AONE?u=ogde72764&sid=summon&xid=97f7dcb1>
- ⁴Katz, J. D. (2014). Noise in the operating room. *Anesthesiology*, 121, 894–898. <https://doi.org/10.1097/ALN.0000000000000319>
- ⁵Bodin, 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>
- ⁶Shirey, 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>

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 4: Implementation of noise reduction strategies
- 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



IMPACTS

- Education on OR noise can empower staff to reduce non-essential noise.^{3,4,5}
- Reducing non-essential noise can decrease stress and distraction levels in OR staff.^{1,3}
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- A quieter OR facilitates effective communication and patient safety.^{1,2,3,4}



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.