

H.U.S.H. Initiative, A Noise Reduction Project

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Significance of the Problem

- Noise: "Any sound that produces an undesired physiological or psychological effect in an individual or group" (EPA, 2009)
- "Unnecessary noise is the cruelest absence of care." (Florence Nightingale, 1859)
- Noise has been reported as problematic according to 50% of patients. (AHRQ, 2007)
- Hospital noise guidelines:
 - EPA-not to exceed 45 dB
 - WHO-not to exceed 40 dB
 - Joint Commission-
 - Noise is a potential contributor to medical and nursing errors
 - Patient Safety Environment of Care Standards
 - CMS/HCAHPS
 - Patient satisfaction survey
 - Reduced reimbursements

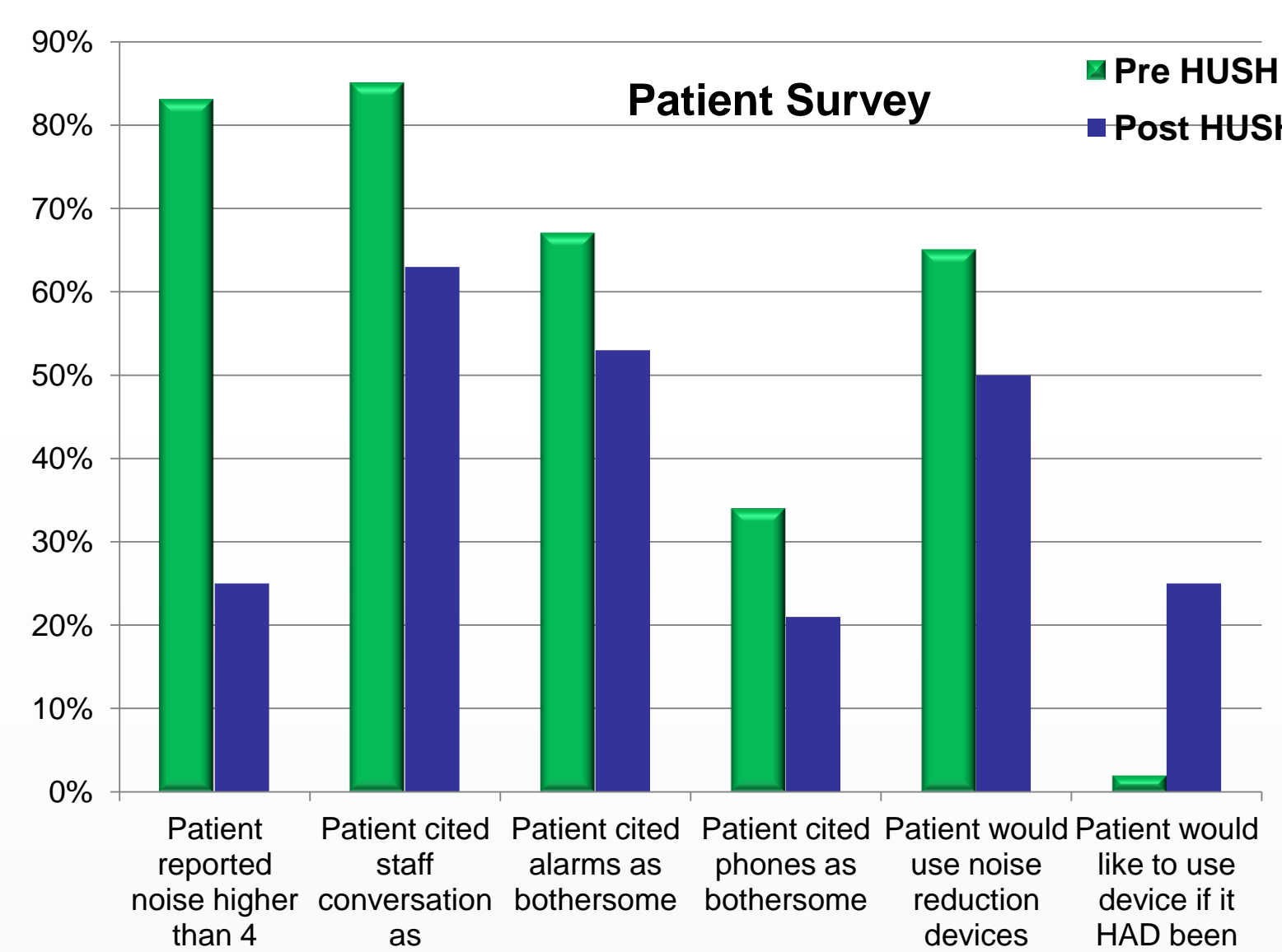
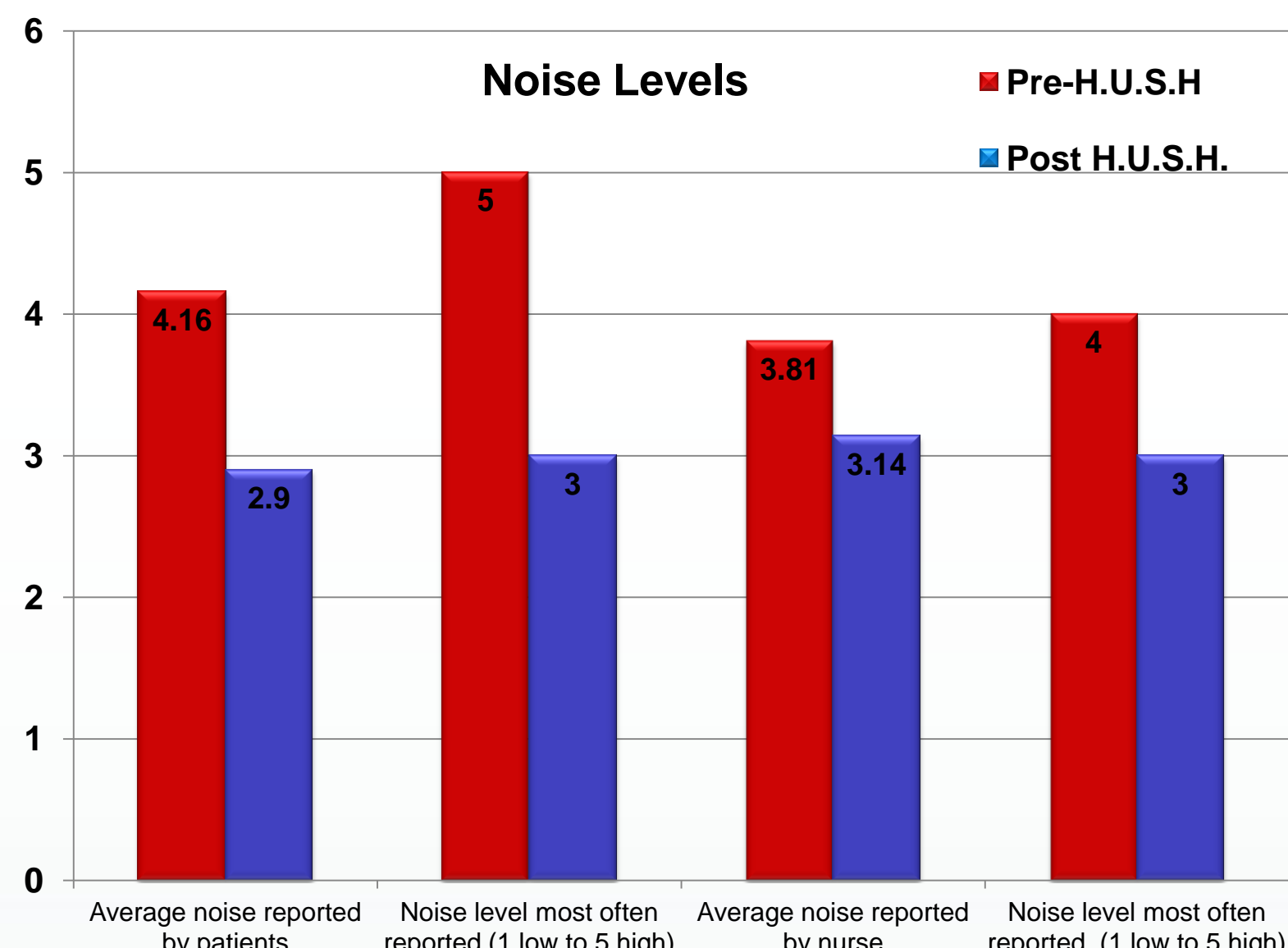
Effects of Noise

- On Patients
 - Sleep disruption
 - ↑ stress and anxiety
 - Agitation
 - ↑ BP, HR, cortisol levels
 - Impaired wound healing
 - Feeling of isolation
 - Question competence of caregiver
 - Increase need for pain medication
- On Nurses
 - Distraction and interruption leads to increase medical and nursing errors
 - Perceived increase in work demands
 - Stress
 - Annoyance
 - Exhaustion/Burnout

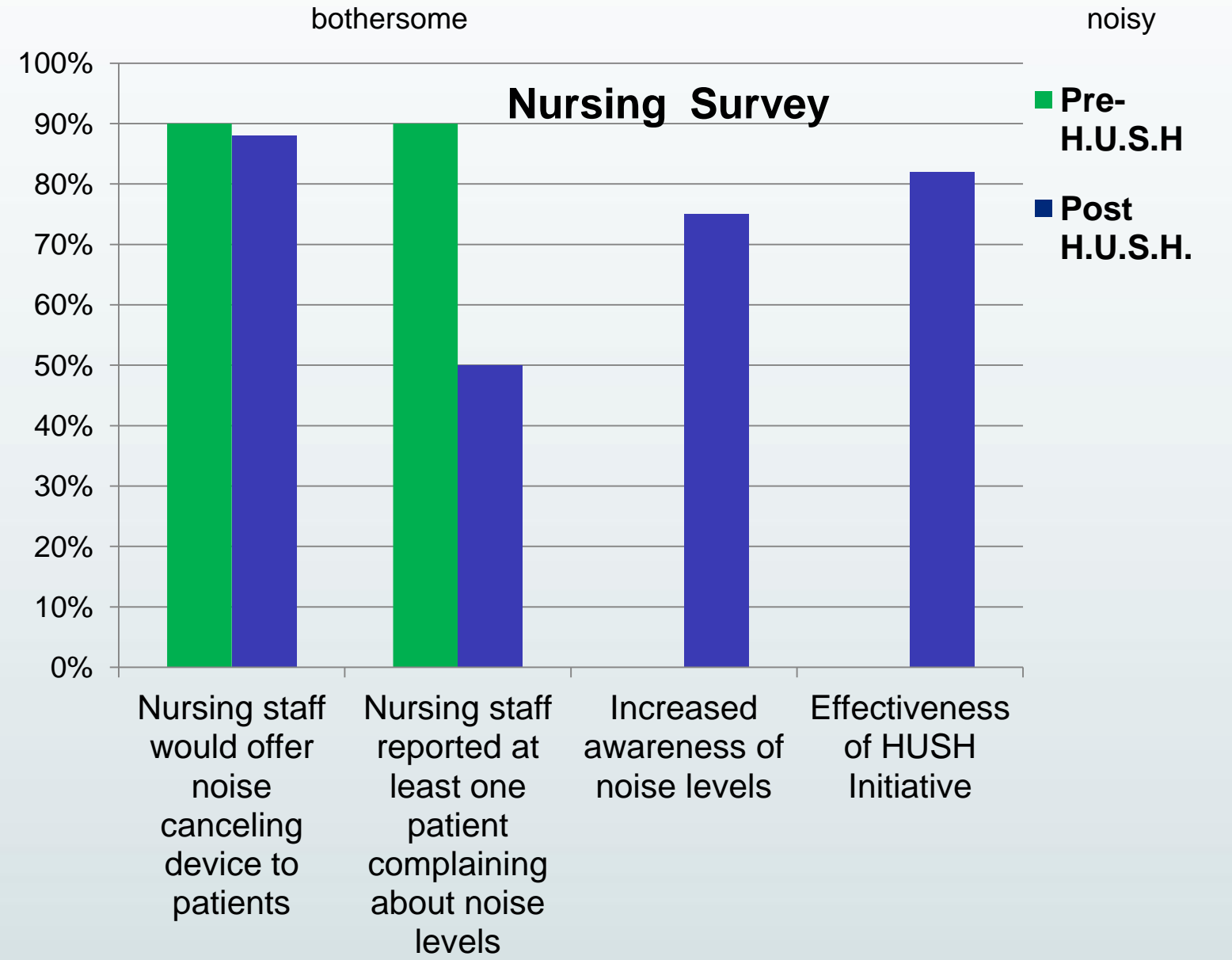
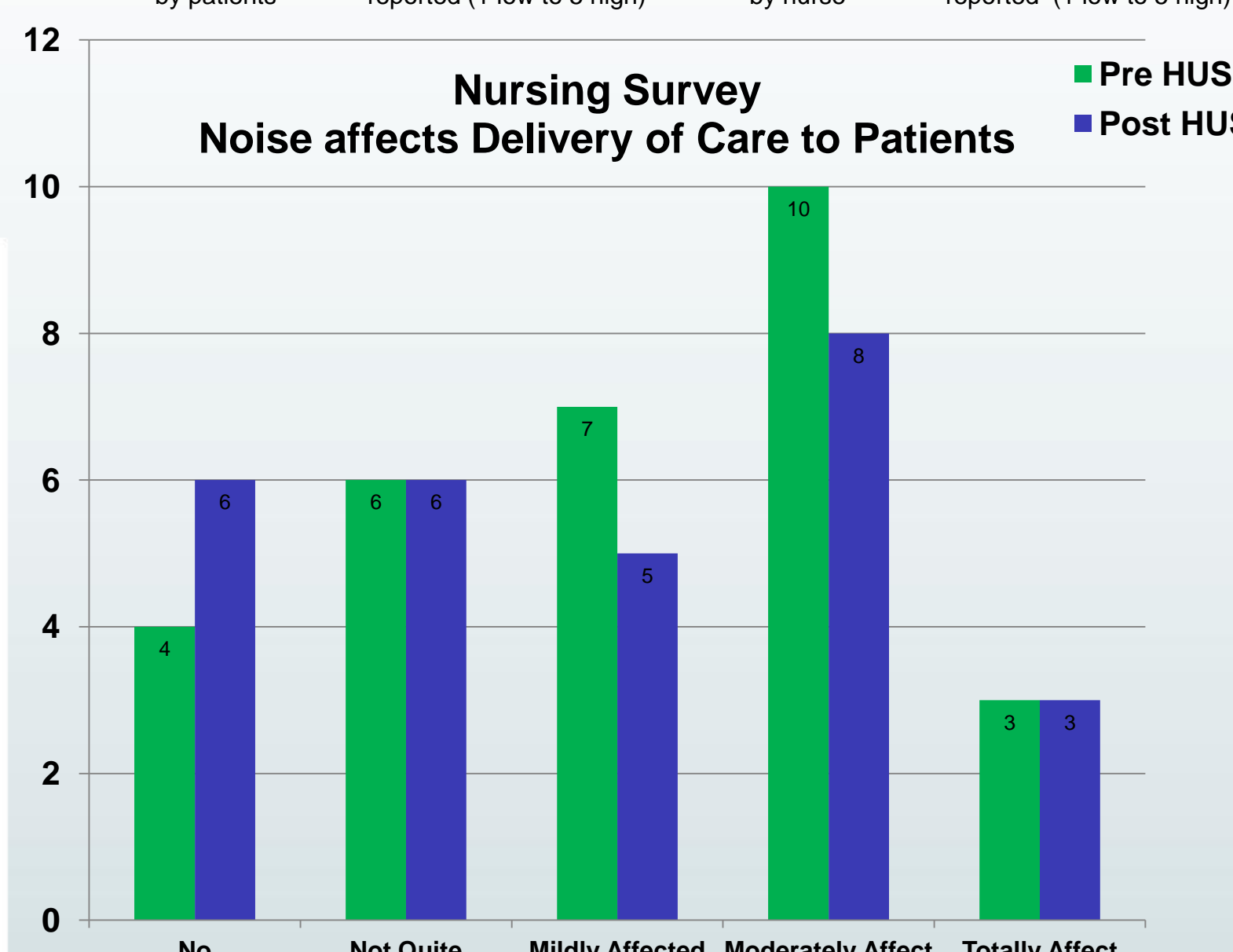
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Results



- Patients reported benefits of noise canceling devices (IPAD, MP3, DVD and Ear Plugs)
 - Noise Reduction 94%
 - Eliminated Boredom 72%
 - Distracted from pain 34%
 - Reduced anxiety 42%
- 100% of patients would use device again and recommend to other surgical patients



Implications for Practice

- Use of noise canceling devices, visual cues and staff education are effective in reducing noise levels in the PACU.
- Decreased noise levels will improve patients' recovery experience and satisfaction with their surgical experience.
- Reduced noise levels will additionally increase nursing satisfaction by providing a less stressful work environment
- Decrease distraction caused by noise lessens the chance for medical and nursing errors
- Noise levels should be as stringent as other environmental standards impacting patient safety.