SYNOPSIS

KEY POINT SUMMARY

OBJECTIVES

The purpose of this investigation was to assess the degree and sources of noise-induced stress in relation to burnout in critical care nurses who have long-term exposure to unpredictable noise (e.g., alarms on patient bedside equipment, telephones, personnel beepers, computer printers, and beeping monitors) and uncontrollable noise.

Noise-Induced Stress as a Predictor of Burnout in Critical Care Nurses

Topf, M., Dillon, E.
1988 | Heart & Lung
Volume 17, Issue 5, Pages 567-574

Key Concepts/Context

Unpredictable and uncontrollable noise is perceived as more stressful compared with continuous noise that is under a person's control. While extensive attention has been given to demonstrating that noise levels are exceedingly high for patients in critical care settings, relatively little has been given to the potential negative effects in nurses.

Methods

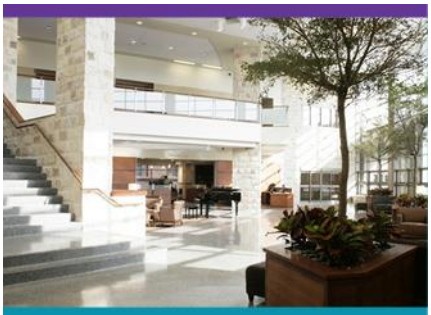
For 100 critical care nursing personnel from two large university-affiliated hospitals on the West Coast, noise-induced occupational stress and burnout were evaluated using Jones' Staff Burnout for Health Professionals and the emotional exhaustion subscale of Maslach's Burnout Inventory.

Findings

The top three most disturbing noises for nurses were beeping monitors, alarms on equipment, and telephones. Nurses were bothered most by equipment noises signaling that action should be taken which may be perceived by patients as necessary for recovery. Noise-induced stress may account for close to one-half as much of the variance accounted for by the total stress linked with critical care circumstances.

Limitations

The outcomes of this study are inconsistent with the outcomes of some previous studies. The self-report questionnaires may not accurately reflect the actual circumstances within the unit(s).



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Design Implications

Modify the critical care noise environment by minimizing and/or improving the quality and volume of the sound produced by equipment and activities that require nurses' attention and action. Make acoustic modification in the structure of units (rubber stripping in doorways, carpets) and equipment (hoods for computer printers). Noisy equipment (ice machines, hematocrit spinner) or staff conferences (nurses' reports) might be housed in a soundproof room. Consideration might be given to modifying the ringing of telephones (use of large flashing red light within eyesight). Innovative alternative might be designed to replace alarms and beeping monitors at the bedside. Straightforward interventions could include signs that redirect foot traffic on the unit or that enhance awareness of noises easily reduced by staff.