



KEY POINT SUMMARY

OBJECTIVES

To investigate the roles and effects of sound designs and interventions in clinical environments in order to stimulate further scientific inquiry into the health implications of sound.

Sound as a Supportive Design Intervention for Improving Healthcare Experience in the Clinical Ecosystem: A Qualitative Study

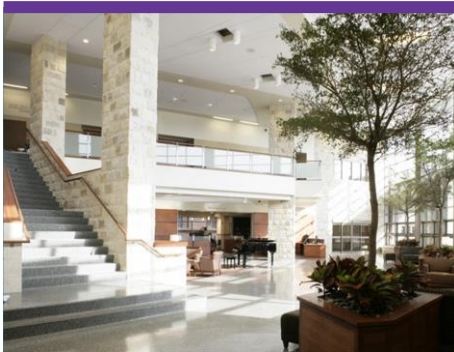
Iyendo-Onosahwo, T. 2017 | *Complementary Therapies in Clinical Practice*, Volume 29, Issue N/A, Pages 59-92

Key Concepts/Context

As professionals work to make healthcare environments increasingly conducive to the physical and psychological well-being of patients and staff, one variable that garners significant attention by researchers and designers is the overall sound of a given space. Healthcare environments generate many kinds of sounds, some of which may contribute to discomfort and, according to previous research, slower recovery among patients. Reducing noise levels in healthcare environments is no simple task, especially as new mechanical devices and treatment procedures are perpetually being introduced. Citing several previous studies, the author of this paper suggests there is a need to research and implement positive, cost-effective sonic distractions within healthcare environments. Design elements such as natural sounds played at reasonable levels could shift patient attention away from unpleasant stimuli and help promote recovery.

Methods

This paper presents a thorough literature review conducted under five main themes: describing sound in clinical environments, sound-based interventions for improving hospital ecosystems, describing auditory landscape interventions, a new paradigm towards hospital noise research, and suggestions for clinical practice. The author used several electronic databases to include studies from several interdisciplinary subjects, such as multisensory architecture, psychology, hospital management, nursing, landscape ecology, and sound ecology. A total of 266 studies were included in this review, with some dating as far back as 1976 and others as recently as 2017.



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Findings

Analysis of published research found numerous examples of sounds (or “noise”) within clinical environments contributing directly to slower recovery rates and other negative outcomes for patients. In response to this, the author suggests interpreting these conglomerations of noises as complex “soundscapes” so that subtler and more practical responses can be made to different sonic environments. Since an overall reduction of sound levels or “negative sounds” is not always correlated with improved sonic environments, the author suggests that designers consider implementing pleasant sounds (such as natural soundscapes like running water, bird sounds, etc.) into clinical environments. As hospitals continue to generally increase in sound level, focusing on adding constructive sounds that patients can voluntarily focus on could help prevent unproductive efforts to curb “noises” within complex soundscapes. Ideally, patients would have full control over the positive sounds around them.

Limitations

This article is a literature review; no original data are gathered, and conclusions are drawn based off of conglomerated data from interdisciplinary research papers.

Design Implications

Rather than working against the rising levels of noise present in clinical environments, designers could consider integrating positive sound interventions such as bird sounds, ocean waves, or soothing music into patient areas. These could be seen as low-risk, non-pharmacological comfort interventions. Patients should have a high degree of control over these interventions, possibly through headphones to control access and volume or other means to control which positive sounds are played. Additionally, single-patient rooms are ideal for reducing the impact of clinical soundscapes on patients.

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