



KEY POINT SUMMARY

OBJECTIVES

1. To evaluate the effect of new music specially designed for the study and played through ceiling suspended loudspeakers on patients recovering after anesthesia.
2. To collect the opinion of the patients and staff about the music.
3. To elucidate whether positive or negative opinions of the staff can induce changes in the patient effect.
4. To investigate the effect of geographical location (across the 5 PACUs) with respect to patient and staff opinion.

DESIGN IMPLICATIONS

Music can improve patient satisfaction and help them relax. Music can be used as an environmental condition to mitigate the negative impact of noise. It can also result in a perception of lower levels of noise.

Designed Sound and Music Environment in Postanaesthesia Care Units – A Multicentre Study of Patients and Staff

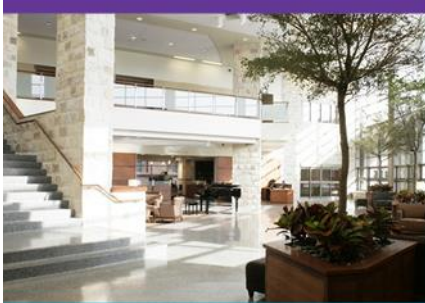
Thorgaard, P., Ertmann, E., Hansen, V., Noerregaard, A., Spanggaard, L. 2005 / *Intensive and Critical Care Nursing* Volume 21, Issue 4, Pages 220-225

Key Concepts/Context

Music is arguably the non-pharmacological intervention with the most evidence to support it. It has been successfully used to ease patient pain perception, anxiety and distress for many pre and post procedure settings. However, a majority of the studies implement music intervention at one on one level (providing patients with headphones, etc. to listen to music). Little research has investigated the design significance of improving the sound environment through music. This paper addresses the unique area of Designed Music Environments (DME) that impact the auditory environment. The setting of these studies is five postanesthesia units (PACUs) in Denmark.

Methods

Data was collected by means of questionnaires in 5 PACU clinics across Denmark. Specially designed music was played through ceiling- suspended loudspeakers on top of the basic sounds in the room. Music sound was fixed at just audible. Questionnaires were collected from patients as they recovered after operations under general or local anesthesia, by trained interviewers. Consent was not deemed necessary since this was considered a quality management project. Patients were not asked for permission to play music, nor were they informed about the presence of music in their rooms. Patient questionnaires focused on patients' opinion about the music environment and their degree of relaxation and satisfaction with their stay.



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Staff surveys were mailed to them with an introductory letter. The protocol and questionnaires were approved by the ethical board. Staff survey questions focused on opinions about the music, its effect on working conditions, effect on total sound levels and perception of effect on patients.

Findings

Amongst the 267 patients surveyed 83% found the sound environment with DME pleasant or very pleasant, 6% found it unpleasant, whereas 11% answered “no opinion”. The opinion of the patients did not differ significantly with geographical location.

There was a strong correlation between a positive attitude towards DME and degree of relaxation and satisfaction with stay.

The staff had an equally positive attitude towards the DME; but theirs varied significantly with the location of the PACU.

The opinion of the staff had no demonstrable impact on that of the patients.

The sound levels in the unit were perceived as lower by the staff, after the DME was introduced.

Limitations

All surveys were conducted in the DME (Designed Music Environment) so there is no way of knowing if patient satisfaction before the music intervention was as high or higher/lower. There is no discussion in the paper about the validation of the survey instrument and the questions used. Even though there is a lot of research on music, the paper does not cite any evidence based upon which the music was created for this study. Given the power of music, in order to introduce music as an environmental condition, further research is warranted, although this study provides a novel, and rigorous, start. Changing the traditional design focus and adapting new design principles based on systems engineering, human factors, and patient safety culture principles.