



KEY POINT SUMMARY

OBJECTIVES

This study aims to discover if varying levels of positive visual distractions will decrease stress levels in pediatric radiology patients and increase parental satisfaction.

DESIGN IMPLICATIONS

Positive visual distractions, such as colorful lighting and video projections, may help improve the experiences of pediatric patients and their parents. Giving the patient control over lighting colors or video projection types could further boost positive reactions to radiographic processes.

Improving pediatric radiography patient stress, mood, and parental satisfaction through positive environmental distractions: A randomized control trial

Quan, X., Joseph, A., Nanda, U., Moyano-Smith, O., Kanakri, S., Ancheta, C., & Loveless, E. A. 2016 | *Journal of Pediatric Nursing* Volume 31, Issue 1, Pages e11-22

Key Concepts/Context

Children often experience elevated levels of stress and anxiety in healthcare environments, in part due to the unfamiliar and intimidating objects surrounding them. Behaviors caused by stress, such as crying or flailing limbs, can interrupt radiological procedures and distract healthcare workers. Among the many solutions to the issue of pediatric stress levels that have been explored in previous studies, one of the most highly effective has been the use of audio-visual distractions. The authors hypothesize that as the amount of positive visual distractions increases, pediatric radiology patient moods will improve and parents will report increased levels of satisfaction with the radiography procedures.

Methods

The study involved one radiography room that was outfitted with colorful ambient lighting and wall projections, and a second radiography room that remained normal. Radiography procedures were videotaped in both rooms for analysis of stress-induced behaviors expressed by pediatric patients. Patients who were randomly chosen to experience the intervention were able to choose the themes of the lighting or animation. Patients within the intervention room were randomly selected to experience the ambient lighting alone or both the lighting and the projection. All participants underwent radiographic scanning and then expressed their mood through a survey. Researchers took note of any signs of anxiety in the patient, and at the end of the procedure parents filled out a questionnaire regarding their experiences.



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Findings

Overall stress levels among all three patient groups (no intervention, lighting, and lighting with projections) were very low. Additionally, no significant differences were found in self-reported happiness or anxiety levels among the three groups. There was, however, an increase in happiness associated with the inclusion of positive distractions. Parental approval was much higher for the intervention rooms due to the degree of control given to the patients and the pleasant atmosphere.

Limitations

The authors note that the patient stress assessment that was used in this study was originally designed for post-anesthesia recovery units, so results indicating low levels of patient stress may be inaccurate. Staff ratings and assessments of patient stress may also be biased in general. Personality types and styles of coping with stress were also not accounted for in this study.

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