



## KEY POINT SUMMARY

### OBJECTIVES

This study intended to gain insight into the effects of the visibility of medical equipment on the well-being of patients.

## The Impact of Bedside Technology on Patients' Well-Being

Tanja-Dijkstra K. 2011 | *Health Environments Research & Design Journal Volume 5, Issue 2, Pages 43-51*

### Key Concepts/Context

The presence of wires, tubes, and monitors near the bedside may contribute to patients' stress and anxiety. One of the trends in healthcare design is to organize the headwalls of patient rooms in such a way as to reduce clutter and minimize the visibility of medical equipment. However, no experimental studies are available that investigate the effects of the visibility of medical equipment in patient rooms.

### Methods

This experiment employed a single-factor between-subjects design (medical equipment visible vs. medical equipment out of sight) exposing participants (n = 42) to a scenario and a picture of a hospital room. They were randomly assigned to either the picture of a patient room with medical equipment visible or out of sight. After exposure to the picture, participants were asked to complete measures to assess stress, emotional state, trust in the healthcare provider, and the perceived attractiveness of the hospital room.

### Findings

The results demonstrated that the visibility of medical equipment affects patients' well-being by influencing feelings of stress. This stress-reducing effect is mediated by feelings of pleasure. Placing medical equipment out of sight leads to a more positive emotional state, which in turn leads to feelings of reduced stress in patients. Moreover, placing equipment out of sight leads to people having more trust in the healthcare provider.

### Limitations

Some limitations identified by the authors include:



### DESIGN IMPLICATIONS

Viewing images can have a direct impact on emotional processing centers in the brain; thus, art for healthcare facilities must be carefully selected.

- The findings of simulation experiments cannot be directly translated into actual healthcare settings.
- The subjects were not real patients. The sample of college students was too homogenous.
- The participants in the study did not experience a real stay in a hospital room.
- The staff perspective is of great importance in designing headwalls. This study didn't address the issue of staff perspective.

Other limitations:

- The subjects were all females with a mean age of 21.3 years. It is important to understand the impact of sex and age on their perception of the visibility of medical equipment.



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