



KEY POINT SUMMARY

OBJECTIVES

The objective of this study was to examine the impact of the physical environment of healthcare facilities on the well-being of healthcare professionals.

A better physical environment in the workplace means higher well-being? A study with healthcare professionals.

Campos-Andrade, C., Hernández-Fernaud, E., & Lima, M. L. 2013 | *Psychology*. Volume 4, Issue 1, Pages 89-110

Key Concepts/Context

Referring to literature that points to the physical and psychological demands of healthcare work, the authors note that a negative physical environment can add to stress, burnout, and the possibility of error in addition to having repercussions for the health and well-being of the workers. Noise levels, unit configuration, and patient room type (single or multi-bed) are some of the environmental factors that have been studied and found to affect the experience and well-being of nurses. In this study the authors examined the impact of the physical environment on the well-being of different healthcare workers in inpatient and outpatient units. It was found that healthcare professionals who work in a better physical environment have a better sense of well-being than those who work in an environment with worse physical conditions.

Methods

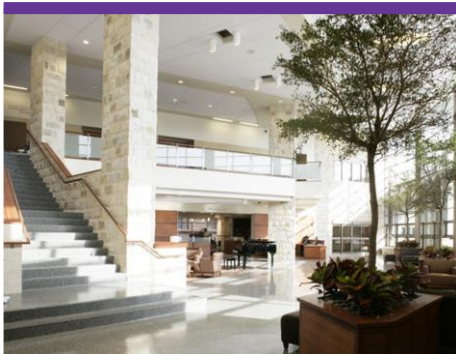
Questionnaires were administered to participants who included nurses, physicians, healthcare assistants, administrative staff, and other healthcare professionals from four inpatient and four outpatient orthopedic units in four hospitals (two old and two more recently built). In all, there were 148 participants. The quality of the physical aspects of the hospital was rated using the Perceived Hospital Environment Quality Indicators (PHEQI) scale for waiting areas. Three indicators for well-being were added: job satisfaction, perception of closeness to ideal care unit, and job stress. The physical environment of the eight units underwent an objective assessment by independent experts. Data collection took place for three months. Analyses of the data included a comparison between the environment assessments of the experts and of the healthcare professionals, descriptive statistics, correlations, and ANOVA.



Findings

The study yielded the following findings:

- The independent experts and the healthcare professionals provided similar assessments of the physical environment of the units.
- Healthcare workers rated the quality of the physical environment of the newer hospital units to be better than that of the older hospitals – and this rating was the same for inpatient and outpatient units.
- With regard to the indicators of well-being –
 - Job satisfaction was significantly higher in the units with a better physical environment – this was true for both inpatient ($P < 0.019$) and outpatient ($P < 0.003$) units.
 - Perception of closeness to ideal care unit was significantly higher in the units with a better physical environment – and this was true for both inpatient ($P = 0.000$) and outpatient ($P < 0.047$) units.
 - There was no difference in job stress for healthcare workers in either unit – the one with a better physical environment or the one which was worse – the results were the same for the inpatient and outpatient units.
 - The objective quality of the physical environment was strongly and significantly associated with perception of closeness to the ideal care unit for workers in the inpatient ($P < 0.01$) and outpatient ($P < 0.05$) units.
 - The objective quality of the physical environment was significantly related to job satisfaction for workers in the outpatient units ($P < 0.01$).
 - There was no relation between the objective quality of the physical environment and job stress of worker in either the inpatient or the outpatient units.
 - Healthcare workers working in a unit, inpatient or outpatient, with better environmental quality had a significantly higher job satisfaction than those who worked in poorer physical environments.
 - Healthcare workers in inpatient or outpatient units with better environmental quality considered the units they worked in to be closer to their perception of an ideal care unit. But between the two, inpatient units were rated more positively as an ideal care unit than the outpatient units.



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- Job stress was not associated with the quality of the physical environment or the type of care unit.

Limitations

The authors do not identify any limitations in their study, but mention that if stress had been assessed using a multi-component scale, the results would have been more informative. The article could have benefited with more elaboration on the design features that contributed to a better physical environment.

Design Implications

The study findings suggested a relationship between better environmental quality (inpatient and outpatient) and job satisfaction. Design features in the better quality environment were reported in more detail in a 2012 paper (Andrade et al.), but were noted to include four factors of environmental quality perception: spatial-physical comfort (6 items), orientation (4 items), quietness (2 items), and views and lighting (3 items). Better environmental quality was also associated with perceptions of an ideal care unit, with inpatient units rated more positively as an ideal care unit than the outpatient units. The environment was not associated with job stress.

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