



KEY POINT SUMMARY

OBJECTIVES

To investigate patients' interactions and activities before, during, and after a stroke unit's reconstruction, and relate these findings to alterations in the unit's designs throughout the process.

DESIGN IMPLICATIONS

Using research from previous studies in combination with their observations of patient activities in three different structural contexts, the authors suggest that single-patient rooms and a lack of space for mobility and social interaction within stroke units could be detrimental to patient recovery.

A Comparative Study of Patients' Activities and Interactions in a Stroke Unit Before and After Reconstruction: The Significance of the Built Environment.

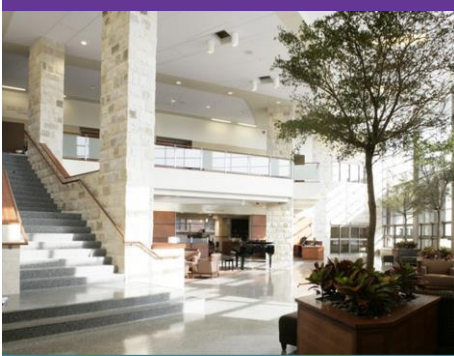
Anaker, A., Von Koch, L., Sjostrand, C., Bernhardt, J., Elf, M. 2017 | *Public Library of Science, Volume 12, Issue 7, Pages 1-12*

Key Concepts/Context

Several previous studies have shown that effective care in a stroke unit requires early rehabilitation and mobilization among patients, as well as the presence of multidisciplinary stroke experts and comprehensive therapies. Though the concept of evidence-based design have been applied to a wide variety of specific medical environments and situations, its application to the physical environment surrounding patients who are recovering from strokes requires further investigation.

Methods

This study focused on one stroke unit in a European university through three phases of reconstruction: before, during, and after. Fifty-nine patients in the acute phase of stroke were involved in the study: 22 in the original unit, 21 in the temporary unit that was used during construction, and 16 in the new stroke unit. Patients receiving any form of palliative care were excluded from the study. Each patient was observed using a standardized behavioral mapping technique over one weekday from 8 a.m. to 5 p.m., with observations recorded every 10 minutes. Researchers also took field notes based on Spradley's "nine dimensions of social situations," which accounted for physical and social aspects of different areas within the unit.



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Findings

Before reconstruction, patients spent time in their rooms half the time. In the temporary unit patient time spent in their rooms increased, and after reconstruction patients were spending the vast majority of their time in their individual rooms. Patient time spent alone grew in an identical pattern, with reconstruction leading to high levels of patient isolation. Conversely, patient activity levels decreased from the original unit to the reconstructed unit. The authors suggest that the single-patient room design and lack of emphasis on spaces for mobility and social activity could be counterintuitive to providing effective treatment for patients recovering from a stroke.

Limitations

The small number of research studies identified makes generalizability to a larger population difficult. The authors note that there is a lack of valid and reliable studies in this area of design.

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