



KEY POINT SUMMARY

OBJECTIVES

The objective of the study was to determine whether environmental factors identified in a prior MBH study were relevant to mental health of staff and families in a NICU.

Physical environments that support the mental health of staff and families in the NICU

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Key Concepts/Context

NICU staff members and patient families are potentially psychologically challenged and/or experiencing high levels of stress. Built environment design interventions that support well-being in mental and behavioral health (MBH) settings may also be applicable to NICU environments. The results of the investigation suggest that multiple factors previously identified in MBH settings may be particularly supportive of family and staff mental health in NICUs as well.

Methods

Data originally collected via interviews (of clinical staff, designers, and administrators) and an online survey (of psychiatric nurses) for research on mental and behavioral health facilities was re-analyzed in the context of NICU design. The 26 environmental factors identified as part of the MBH study were evaluated to see if they were relevant to the design of NICUs using the criteria of: not being unique to a MBH facility (an example provided of a unique factor was a time-out room), being consistent with environmental psychology research, and having been researched in ICUs.

Findings

Twenty (of 26 possible) factors that were identified in the study of mental health facilities were seen as impacting the mental state of NICU staff and patient families. There is a brief narration of several of the factors that include:

- Deinstitutionalized and homelike. This may be hard to define, but is not about a specific aesthetic but more universal approaches to calming settings, for example choice and control.



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- Appropriate unit size. While not empirically defined as a number of beds, it is considered in the context of smaller units where people may be more likely to recognize one another.
- Attractive and comfortable furniture. The exact rationale is not clear for this factor, but the authors speculate that quality may suggest a quality of care as well
- Private bathrooms.
- Low-density bedrooms.
- Adequate daylight/windows. This stems from both physiological and psychological outcomes reported in prior studies.
- Access to nature. Attention Restoration Theory, developed by Kaplan and Kaplan, as well as Ulrich's theory of supportive gardens, have demonstrated the relationship of nature and well-being.
- Patient-staff interaction spaces. This factor has only been studied, but the benefits of counseling can be found in non-built-environment research on NICUs.

Limitations

While there are no specific author-identified limitations, as a reader additional detail on the prior data about importance and efficacy of each factor would have been useful.

Design Implications

The authors describe the factors identified in the findings (de-institutionalization, unit size, furniture, private bathrooms, bedroom occupancy, access to nature, windows, and daylight, and interaction spaces) as the most "salient" to consider in NICU design, primarily because they are well-supported by research in other settings as well as in environmental psychology.

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