



KEY POINT SUMMARY

OBJECTIVES

The study's objective was to explore the impact on the work environment, including aspects of the physical environment, on nurses' work satisfaction.

Work Environment Factors Other Than Staffing Associated With Nurses' Ratings of Patient Care Quality

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Key Concepts/Context

There have been many studies on the impact of registered nurse (RN) staffing on patient care quality, but this study set out to identify other modifiable work environment factors linked to patient care quality. This information could be significant given that the projected shortage of approximately 250,000 RNs over the next 15 years will limit healthcare institutions' ability to rely on RN staffing alone to ensure high-quality care. This study looked at the association between RNs' ratings of patient care quality and several novel work environment factors adjusting for the effects of two staffing variables: reported patient-to-RN ratios and ratings of staffing adequacy. Decision makers and stakeholders can use the study results to strategically allocate resources toward work environment factors in the built environment that can improve care.

Methods

Using a cross-sectional, correlational design and a mailed survey, this study collected data in 2009 from a national sample of U. S. RNs ($n = 1,439$). The RN's rating of patient care quality was the dependent variable. Person factors were the independent variables. They included: (a) work motivation, negative affectivity, positive affectivity, and education; (b) task components such as variety, autonomy, and quantitative workload; (c) organization components such as nurse-physician relations, workgroup cohesion, supervisory support, organizational constraints, promotional justice, procedural justice, reported patient-to-RN ratio, perceptions of staffing adequacy, and Magnet Recognition Program; and (d) physical work environment aspects and job satisfaction.

Researchers used a multivariate logistic regression to analyze the data.



Findings

The results indicate that workgroup cohesion, nurse-physician relations, procedural justice, organizational constraints, and physical work environment were associated with RNs' ratings of quality, adjusting for staffing. Furthermore, working in a magnet hospital and job satisfaction were positively related to ratings of quality, whereas supervisory support was not.

Interestingly, the study found that a single incremental increase in physical work environment ratings

corresponded to the largest improvement in ratings of patient care quality. The authors did not find this surprising, however, because their physical work environment scale measured elements across several dimensions: ambient, architectural, and interior design. They posit that, while improving these elements might be costly, involving staff in design decisions could yield improved perceptions of patient care quality.

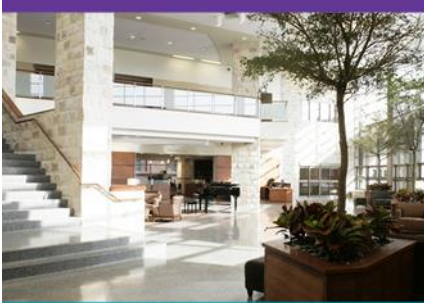
Limitations

The study has several limitations, despite using a national RN sample and a well-specified measurement model, that cautions generalizing the findings. For example, using cross-sectional data precludes inference to causal relationships between the predictors and the outcome variable in this study. The findings also relied on RNs' ratings of patient care quality and did not measure actual patient outcomes. Furthermore, the data are from RNs who are early in their nursing careers. More experienced RNs might have different perceptions of work environment and the quality of patient care. The small number of respondents who reported high-quality care is not too likely or not likely at all in their work unit, may indicate that they lack the experience to critically evaluate the quality of patient care. Alternatively, the nurses might be reluctant to report poor patient care quality in their work units because it would reflect badly on them. Although, previous research suggests that work environment factors interact to impact patient care quality through care or other processes, in this study, researchers tested only the independent direct effects of factors on RN-rated patient care quality.

Finally, another limitation of the study is in understanding what aspects of the physical environment were specifically singled out as significant. Architecture, ambient, and interior design are broad definitions.

Design Implications

RNs are the most numerous healthcare providers in hospitals, and without ensuring optimally designed work environments to support their delivery of care, making progress in improving the overall quality of care will be difficult.



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Of special note is that the authors found that a single incremental increase in physical work environment ratings corresponded to the largest improvement in ratings of patient care quality. The authors did not find this surprising, however, because their physical work environment scale measured elements across several dimensions: ambient, architectural, and interior design. They posit that, while improving these elements might be costly, involving staff in design decisions could yield improved perceptions of patient care quality.