



The Effect of Health Care Working Conditions on Patient Safety

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Structured Abstract

Objectives

The purpose of this report is to compile and summarize existing evidence on the aspects of the working environment that impact patient safety. Five categories of working conditions were evaluated: workforce staffing, workflow design, personal/social issues, physical environment, and organizational factors.

Search Strategy

Five bibliographic databases were searched; the databases were chosen to include citations from both the healthcare and non-healthcare literature. The databases included MEDLINE (with HealthSTAR), CINAHL, PsycINFO, EBSCO, and the Campbell Collaboration. Searches were conducted back to 1980 for MEDLINE and EBSCO, back to 1982 for CINAHL, and back to 1984 for PsycINFO. Additional studies were identified through hand searches of reference lists and selected tables of contents. Unpublished studies were identified through discussions with content experts.

Selection Criteria

The criterion for inclusion in the literature review was that the article addressed patient safety or human performance, together with predetermined definitions of working conditions. Studies with no original data were excluded unless they were systematic literature reviews. Selection criteria were tested through dual reviews by a second investigator.

Data Collection and Analysis

The articles included in the general literature review guided the definition of subcategories within the five main categories of working conditions. The quality of the evidence in individual studies was assessed through separate ratings of study design and execution. For each of the working-condition categories, six key questions were addressed to classify the nature of the evidence linking the working condition to aspects of patient safety.

Main Results

The strongest evidence linking working conditions to aspects of patient safety is in the areas of workforce staffing and workflow design. Specific working conditions in

these two categories affect both rates of medical errors and the incidence of patient outcomes related to patient safety. The patient outcomes affected include hospital-acquired infections, decubitus ulcers, and patient falls. There is not consistent evidence that working conditions affect the rates of preventable deaths in hospitals.

Conclusions

The available evidence supports the recommendation that healthcare systems initiate demonstration projects and translational research to modify working conditions with the goal of improving patient safety. Specific areas in which such efforts are likely to be successful include: changes in nursing staffing, channeling high-risk technical procedures to high-volume physicians, avoidance of distractions in the healthcare workplace, and processes to improve information exchange between hospital and non-hospital settings. In addition, previous suggestive-but-inconclusive research indicates that limited investigations of workplace stress, lighting conditions, and organizational factors will clarify whether these additional working conditions affect patient safety.

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Expand All

Collapse All

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