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Dr. M. Dougherty, PhD, RN, FAAN  
Nursing Research Editor  
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Regarding: Only connecting nursing staffing factors to patient mortality rate is a concern.

Dear Dr. Dougherty, PhD, RN, FAAN, Editor,

To transform nursing to improve health care quality and promote good patient outcomes is a goal of nursing. *Nurses' Work Schedule Characteristics, Nurse Staffing, and Patient Mortality* (Trinkoff, et al., 2011) is an article that attempts to understand how work schedules are associated with patient mortality.

The study used the framework of human factors engineering (HFE) balanced theory measuring organizational conditions. This theory proposes that job performance is affected by an imbalance of excessive demands placed on the employee. The HFE approach analyzes organizational system failures behind events and is concerned with physical, cognitive, and organizational factors (Gosbee, 2005). Organizational factors that influence performance include job characteristics, models of care, communication, and team work. This study was limited to staffing and mortality data which is contradictory to multifaceted, human factors engineering approach.

Additionally, the study used AHRQ mortality indicators using hospital discharge data. The conditions have been chosen because they have been shown to vary across institutions and suggest high mortality, and maybe associated with deficiencies in the quality of care (AHRQ indicators, 2006). The definitions of the conditions are based on ICD-9-CM diagnosis and procedure codes. Iezzoni (2003) discusses how under-coding is a problem with discharge data and may not reflect the actual clinical appropriate ratings of the patient such as other comorbidities that affect the outcome.

The statistics with this study only identifies, for administration, the gestalt safeness of their organization. Gosbee (2005) indicates that further analysis is required to have a deeper understanding of the root cause such as completing a task analysis (nature of tasks that are mandatory to complete for the shift, or tools needed for scheduling), cognitive work analysis (staffing rules, skills needed, goals to be achieved on the shift, competencies of staff), heuristic

evaluations (actual inspection of upfront and real time staffing), and contextual inquiry (modeling and evaluating the design of the work environment and staffing practices).

A staffing plan is just that, a plan, and when the moment comes multiple factors may change the plan; the decision of nurse dose should rest with the staff at that moment which may require using overtime or on-call. Nursing administration should address the staffing qualifications, number of staff, model of care, and other organizational factors. Additionally, they must address extended workdays, provide rest periods to increase productivity, limit the number of different work-shift rotations in a week, and 24 hours of rest should be provided after working several nights in a row (Gosbee, 2005).

This study did increase our awareness of nurse work schedules characteristics. Connecting mortality rates to staffing characteristics are a leap, and it is essential that research continues linking multifaceted staffing factors to patient outcomes. Understanding these factors will prepare our profession to help our patients we serve.

Respectfully,

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#### References

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