

NURSE STAFFING

LONG WORKING HOURS OF HOSPITAL RNs ASSOCIATED WITH INCREASED ERRORS

Source

Rogers, A. E., Hwang, W.-T., Scott, L. D., Aiken, L. H., & Dinges, D. F. (2004). The working hours of hospital staff nurses and patient safety. *Health Affairs*, 23(4), 202-212.

Objective

To examine the work patterns of hospital staff nurses¹ and to determine if there is a relationship between hours worked and the frequency of errors.

Background

The shortage of registered nurses (RNs) in many hospitals has resulted in nurses working longer shifts and more overtime shifts. Nurses also regularly report having fewer breaks during their shifts and less time to recover before returning to work. Changes in work patterns combined with increasingly demanding workloads related to greater complexity of patients' needs and shorter lengths of stay in hospital can challenge nurses' ability to provide safe patient care. Little is known about the impact of hours worked by RNs on patient safety.

Methods

- The sample for this study comprised 393 unit-based RNs, who were members of the American Nurses Association and who were working full time in hospitals across the United States.
- Study participants were mailed two logbooks, each covering a two-week period.
- On days they worked, RNs were asked to answer 40 questions about scheduled and actual hours worked, time of day worked, overtime,² sleep/wake patterns and errors and near errors; on their days off, RNs were asked to answer 17 questions about sleep-wake patterns, mood and caffeine intake.
- The majority of respondents completed both log books covering 28 days. A small percentage returned only one book.
- RNs in the sample provided data on 5,317 work shifts.
- The main outcomes studied were errors and near errors.³

¹ In this study, 'nurse' refers to registered nurses (RNs).

² A shift was considered overtime if the actual hours worked were longer than the scheduled hours or if the RN reported the shift was 'scheduled overtime'.

³ A near error was recorded when a nurse caught himself or herself before making an error.

Principal Findings

- RNs worked, on average 55 minutes longer than scheduled each work day and generally worked more than 40 hours a week.
- All RNs worked at least one overtime shift during the 28-day period; however, two-thirds of RNs reported working overtime ten or more times during that period. One-third of RNs reported working overtime each day they worked in the period.
- 199 errors and 213 near errors were reported; of these, almost 60 per cent involved the administration of medications.
- The likelihood of making an error increased:
 - as the number of hours worked increased;
 - when RNs worked overtime; and
 - when RNs worked more than 40 hours a week.
- The odds of making an error were three times higher when RNs worked shifts 12.5 hours or longer.

What do the Study Findings Mean?

- Current work patterns of unit-based RNs in hospitals can be a threat to patient safety.
- Fatigue experienced by RNs working long hours may increase the risk of making errors.
- Administrators, managers and RNs on hospital units must carefully consider the impact on patients of nurse staffing practices such as 12-hour shifts and overtime.
- Nurse staffing practices that contribute to patient safety are an important part of quality professional practice environments.

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