

NURSE STAFFING

NURSE STAFFING MODEL INFLUENCES COST OF NURSING SERVICES

Source

McGillis Hall, L., Doran, D., & Pink, G. H. (2004). Nursing staffing mix models, nursing hours and patient safety outcomes. *JONA*, 34(1), 41-45.

Objective

To evaluate the effect of different nurse¹ staffing models on costs and patient safety outcomes.

Background

There is growing evidence of the relationship between nursing staff mix models with a higher proportion of RNs and positive patient outcomes. Costs associated with different nurse staffing models and how these costs may relate to patient outcomes have seldom been studied.

Methods

- This descriptive correlational study took place in 19 urban teaching hospitals in Ontario, Canada. The sample was composed of 77 adult medical, surgical and obstetric patient care units in these hospitals.
- Nurse staffing was categorized into four models according to the mix of nursing staff employed on the unit: 1) an RN/RPN staff mix; 2) an all-RN staff mix; 3) the proportion of regulated to unregulated staff (URW); and 4) an RN/RPN/URW staff mix.
- Patient safety outcomes included the rate of medication errors, wound infections, urinary tract infections and patient falls.
- The complexity of the patient's condition and the patient's age were taken into consideration when evaluating patient outcomes.
- Costs were determined by measuring the paid hours (both worked and received through benefits) of all RNs and RPNs allocated to a specific patient.

¹ In this study, 'nurse' refers to registered nurses (RNs) and registered practical nurses (RPNs). The title for a practical nurse in Canada, with the exception of Ontario, is licensed practical nurse (LPN). In Ontario, the title for a practical nurse is registered practical nurse (RPN).

Principal Findings

- The lower the proportion of RNs and RPNs on medical and surgical units:
 - the higher the number of medication errors and wound infections; and
 - the more nursing hours were used.
- The less experienced the RNs and RPNs on a unit are, the higher the number of wound infections.
- Older patients and those with more complex needs used more RN and RPN hours.

What do the Study Findings Mean?

- Increasing the proportion of unregulated health care workers on medical and surgical units can:
 - influence patient safety; and
 - increase nursing costs.
- Nurse managers need to consider the complexity of patient needs, the experience level of the nurses and the mix of nursing staff when determining appropriate unit staffing.
- Less experienced RNs and RPNs need supports such as mentoring and unit-based orientation and education to improve their practice and increase patient safety.
- Strategies are needed to recruit and retain experienced nurses.

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