

“...relationships between the use of temporary nursing staff and the occurrence of nosocomial infections (central line-associated blood stream infections and ventilator-associated pneumonia)” Bae et al (2014).

Reference:

Bae, S.H., Brewer, C.S., Kelly, M. and Spencer, A. (2014) Use of temporary nursing staff and nosocomial infections in intensive care units. *Journal of Clinical Nursing*. November 28th. .

Abstract:

AIMS AND OBJECTIVES: To examine the nature and prevalence of the use of temporary nursing staff in intensive care units and relationships between the use of temporary nursing staff and the occurrence of nosocomial infections (central line-associated blood stream infections and ventilator-associated pneumonia).

BACKGROUND: Hiring temporary nurses raises controversial issues with respect to nurse staffing, care processes and patient outcomes, yet empirical findings regarding the use of temporary nurses are mixed. Whether adverse patient outcomes in intensive care units are related to the use of temporary nursing staff remains unexamined.

DESIGN: A retrospective longitudinal design was used.

METHODS: Data were collected monthly from 12 intensive care units at six hospitals; 144 ICU-month data points were used for the analysis. Chi-square, anova and logit regression models were used to examine the research questions.

RESULTS: The intensive care units used higher levels of temporary nursing staff, but the use of temporary nursing staff was not significantly associated with nosocomial infections. Nurses’ perceptions regarding staffing and resource adequacy were significantly associated with nosocomial infections.

CONCLUSIONS: No evidence was found to link the use of temporary nursing staff and nosocomial infections. Instead, nurses’ perceptions of staffing adequacy were related to nosocomial infections.

RELEVANCE TO CLINICAL PRACTICE: Given the greater use of temporary nursing staff in intensive care units, nurse managers in intensive care units need to monitor the levels of temporary nurse staffing and develop a systematic approach for hospitals to assist in these



nurses' adjustment, which can reduce the burden of both temporary and permanent intensive care unit nurses. In addition to quantitative measures of nurse staffing, nurses' perceptions regarding staffing adequacy can be used to measure nurse staffing in relation to adverse patient outcomes.

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