

Research RECAP



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Nursing Health Services Research Unit -
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Impact of nursing on patient mortality: A Literature Review

What is this research about?

There is increasing need to improve patient safety in our health care system. Research indicates that 5-15% of patients admitted to hospitals experience an adverse event, many of which are preventable. Most research focuses on the incidence of these adverse events as indicators of safety and quality. It is important however, to understand the organizational and system conditions that lead to adverse events. A better understanding of the causes of adverse events can shed light on important practice and policy implications. This can help to improve patient safety research and ultimately improve conditions that promote safe clinical practice.

The purpose of this paper was to provide an explanation of the hospital characteristics that prevent mortality and minimize unnecessary patient death. This research was done using a review of current literature.

What you need to know:

Researchers looked at existing published research to explore determinants of mortality in acute care hospitalized patients. Seven categories of hospital characteristics that contribute to reduced mortality were found. These include nurse-physician relationships, nurse staffing characteristics, nurse experience and professional practice environment.

What did the researchers do?

An electronic search was conducted to find relevant research literature. The research had to meet specific criteria and include mortality rates as study outcomes and be published between 1986 and 2004. Two databases were used to complete the electronic search: MEDLINE and CINAHL. After a thorough literature search, 15 relevant publications were used. Researchers used these publications to describe nursing related determinants of mortality for acute care hospitalized patients.



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What did the researchers find?

Researchers found seven categories of determinants of patient death using findings from the 15 studies:

- **Nurse-physician relationships and mortality:** Effective collaboration between physicians and nurses was associated with decreased patient mortality.
- **Nurse staffing and mortality:** Several studies found that higher registered nurse staff mix was related to lower mortality. A higher ratio of full time nurses was also associated with lower mortality.
- **Physicians characteristics and mortality:** Hospitals with a higher percentage of board certified physicians had significantly lower mortality rates.
- **Nurse experience and mortality:** More years of nurse experience on a unit was associated with lower mortality rates.
- **Registered nurse educational preparation and mortality:** An increase in the proportion of baccalaureate prepared nurses was associated with a decrease in likelihood of patient death.
- **Clinical nurse support and mortality:** Hospitals with the lowest mortality rates had comprehensive nursing educational support systems.
- **Professional nursing practice environment and mortality:** Magnet hospitals, characterized by strong professional nursing practice elements, were found to have significantly lower mortality than non-magnet hospitals.

How can you use this research?

Healthcare leaders need to take action in improving patient safety practices. Four strategies were suggested for healthcare decision makers to minimize unnecessary death and enhance patient safety:

- Maximize the proportion of registered nurses and baccalaureate prepared nurses;
- Develop and implement plans to strengthen collaboration between nurses and physicians;
- Maximize the proportion of board certified physicians;
- Improve clinical nursing support systems to enhance patient care.

Original Article:

To learn more about this study, we invite you to read the original research article:

Tourangeau, A., Cranley, L. & Jeffs, L. (2006). Impact of nursing on hospital patient mortality: A focused review and related policy implications. *Qual Saf Health Care*, 15(1), 4-8.

About the Researcher

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