



Impact of Nurse:Patient Ratios on Quality of Care

Alyssa Keen, Destiny Park, & Jordan Wales

Dean: Mary Bess Griffith, PhD, RN, FNP, CS, CNE

Faculty Advisor: Marcia Barnes, DNP, APRN, ACNP-BC



BACKGROUND/SIGNIFICANCE

What is the effect of lower nurse-to-patient ratios, in comparison to higher nurse-to-patient ratios, on patient quality of care and safety in the hospital setting?

According to Martin et al. (2015), nurse staffing has an impact on the quality of patient care and hospitals. Lower nurse-patient ratios (such as California's mandated 1 nurse for every 5 patients) have been shown to reduce mortality by 50%, though there has been little reform in nurse staffing (Martin, 2015). According to Griffiths et al. (2018), nurses across the world cause missed care due to an overwhelming number of patients, including one report of 11 patients to 1 nurse on average. Staffing that leads to these high ratios can lead to adverse patient outcomes, such as pressure injuries and may cost hospitals over 9 billion dollars (Martin, 2015). High ratios can also have an impact on the health and wellbeing of the nurse. It can increase burnout and shorten nursing careers and result in chronic fatigue, poor sleep patterns, and job dissatisfaction (Martin, 2015).

METHODS

This review focused on how nursing staff ratios affect patient outcomes. Search terms included nurse to patient ratios, nurse staffing effect on patient outcomes, and California nurse staffing laws using the CINAHL database through Cumberland University Vise Library and Google Scholar. For the purpose of this review, five studies were found in peer reviewed journals, written in English, and published within the past five years to appropriately answer the proposed research question.

Ida Orlando created the Nursing Process Theory. This theory explains that nursing care and interventions are based on interactions with the patient (Alligood, 2014). There is a risk of not creating a connection if the nurse is taking care of a high number of patients. Communication between the nurse and patient are crucial to accurate, individualized patient care. This becomes extremely difficult when patient loads are high and nursing responsibilities including charting, medication administration, patient assessments, passing meal trays, and recording vitals and intake and output only increase with each patient. Therefore, communication with the patient is key to planning care, which high nurse-to-patient ratios can put in jeopardy.

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RESULTS

- Cho, Lee, You, Song, and Hongs (2019) conducted a cross-sectional study and examined nurse staffing, missed care, and patient outcomes. Nurse staffing was measured by patient nurse ratios and staffing adequacy. They also developed a missed nursing care survey that measured how many times nurses had missed 24 different activities. This study found poorer nurse staffing was associated with increased missed patient care. A high number of missed activities and inadequate staffing was associated with poorer patient safety, quality of nursing care, job dissatisfaction and a higher intent to leave. Overall, adequate staffing reduced missed care and increased the quality of care and outcomes.
- Driscoll & colleagues (2018) conducted a systematic review and meta-analysis of 35 cross-sectional articles and found that having increased staffing was associated with reduced mortality, medication errors, ulcers, restraint use, infections, and pneumonia. Their meta-analysis of 175,755 patients from six studies admitted to the ICU and/or cardiac/cardiothoracic units also showed that for every increase of one nurse decreased the risk of in-hospital mortality by 14 percent. Overall, better staffing improved patient care, reduced medication errors, restraint use, as well as decreasing in-patient mortality.
- Griffiths and colleagues (2018) conducted a systematic review using quality appraisal and abstracting data on study design, missed care prevalence and measures of association. This review found that low registered nurse staffing was associated with reports of omitted nursing care. This research also found that missed care was a promising indicator of staffing inadequacy. Overall, inadequate staffing equaled missed care.
- In a cross-sectional study performed by Lake, Germack, and Viscardi (2016) the authors surveyed nurses and patients from 409 U.S. hospitals in four states. They used multi-state nursing care, patient safety surveys and patient experience data from the national HCAHPS survey and found that 2.7 of 12 required care activities were missed by nurses during their shift. Three-fourths (73.4%) of nurses reported missing at least one activity on their last shift. This percentage ranged from 25% to 100% across hospitals. This study also found that in hospitals with more missed care equaled a poorer patient experience than in hospitals that are supporting nurses' ability to complete required care. This could optimize the patient's experience. Ensuring adequate nursing resources should be a top priority for facilities.
- Silber and colleagues (2016) conducted a RCT and explored the difference in hospitals with better nursing work environments to those with worse working environments. The researchers found that hospitals with better nursing environments and above-average staffing levels were associated with better value (lower mortality with similar costs) compared to hospitals without nursing environment recognition and with below-average staffing, especially for higher-risk patients. Overall, these results did not show that improved nursing environment would improve the hospital's value but that it improved at risk patient outcomes.

PRACTICE IMPLICATIONS

Quality of care is a cornerstone of the nursing profession and as nurses it is our responsibility to ensure we consistently strive to improve upon that quality. The literature review has shown that staffing ratios have a significant impact on not only quality of care but patient safety as well. It is essential that nurses have adequate staffing ratios in order to prevent things such as nursing burnout and omitted care due to time constraints, as omitted care can lead to adverse patient outcomes (Cho, 2019). Adequate staffing has been shown to reduce complications such as mortality, pressure injuries, pneumonia and infections (Driscoll, 2018). These events not only have negative impacts on patients but nurses as well. Omitted care can lead to even more work for the already stressed nurse and lead to the nurse leaving the facility and/or professions; therefore, creating a vicious cycle. As nurses, it is important that we advocate for patients and ourselves by advocating for adequate staffing ratios.

CONCLUSIONS

Nurse staffing ratios have a substantial impact on a nurses' ability to provide quality care and maintain safety. The results of this literature review showed that inadequate or decreased staffing can lead to missed patient care activities and subsequently poorer patient outcomes and safety (Cho, 2019; Lake, 2016). Alternatively, having adequate staffing or increased staffing has been shown to significantly decrease the incidence of mortality, medication errors, and restraint use (Driscoll, 2018). Adequate staffing and a better work environment was also shown to improve at risk patient outcomes (Silber, 2016). High nurse-to-patient ratios impede the ability for a nurse to communicate with patients to create individualized care, which is crucial to the Nursing Process Theory.

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