The Impact of Emergency Department RN Staffing on ED Patient Experience

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Contribution to Emergency Nursing Practice

- Outlines research that was conducted to examine the impact of ED RN staffing on ED patient experience scores.
- Such research informs nursing management and hospital leadership about potential ways to best use staffing resources to ensure optimal patient experience.

Introduction: Patient experience ratings are important to health care organizations from both a clinical and financial perspective. Studies examining the relationship between patient experience and nurse staffing are prevalent in the inpatient setting, but not as much is known about how staffing affects these ratings in the emergency department.

Methods: Using responses from 3,120 adult patients who visited the emergency department of a large academic medical center in the southeastern United States between March 1, 2015, and November 30, 2015, this study examined the relationships between ED RN staffing and patient experience ratings. Ordinal logistic regression models were used to examine the relationship between 2 nurse staffing variables and patient ratings of care.

Results: Overall, higher levels of RN staffing in the emergency department were associated with better patient ratings of their care experiences, but the strength and significance of this relationship varied as a function of different factors (eg, how staffing is measured, discharge status of the patient).

Discussion: Higher levels of ED RNs may enable nurses to better meet the expectations of patients presenting to the emergency department, highlighting a number of opportunities for allocating nursing resources.

Keywords: Emergency department; Nurse staffing; Patient experience

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I n March 2008, the measurement and reporting of patient experience gained new importance as the Centers for Medicaid and Medicare Services (CMS) released the first set of data available to the public.[1] These data—the Hospital Consumer Assessment of Healthcare Providers and Systems (HCAHPS)—reported patient experience scores for recently discharged hospital inpatients and, for the first time, enabled a nationwide assessment of patient experiences of hospital care. Since then, improving patient experience has become a key strategic focus for hospitals across the United States.[2]

Despite the importance of patient experience, most research in this area has focused on inpatient care settings; however, there is emerging interest in understanding patient experience in the emergency department. For example, CMS has developed—and is testing—an ED patient experience measurement tool called the ED Patient Experiences with Care (EDPEC) survey (also referred to as ED CHAPS). This tool is designed to measure patient experiences upon arrival to the emergency department, while in the emergency department, and after admission to the hospital or discharge from the emergency department. Use of this tool may be mandatory in the future for all hospital-based EDs and affect hospital reimbursement, similar to the inpatient HCAHPS survey.

Research is needed on patient experience in the emergency department and the factors that may influence these experiences. The purpose of this study was to examine one such factor: ED RN staffing levels. It also assessed whether ED RN staffing levels had "spillover" effects on patient care experiences when patients were subsequently admitted to the hospital.

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The measurement of patient experience in inpatient settings has become the norm, and research has begun to shed some light on the factors associated with patient experience in this setting. Some research suggests that patient characteristics (eg, age, income, health status) or processes of care (eg, subjective and technical components of the visit, technical skill) are the critical antecedents of patient perceptions of their care experience.[3] Others suggest that inputs of the care delivery team, including nurse staffing and nursing practices, are the most important factors.[4–6]

For example, a study of California emergency departments found that fewer physicians and nurses per patient were associated with longer wait times.[7] Similarly, Taylor et al[8] found improvements in patient experience following staff training regarding communication and the addition of RN resources for a patient liaison nurse. The implementation of additional nurses for dedicated fast tracks and the creation of an admission bridge nurse resulted in improvements in patient satisfaction.[9,10] Collectively, this research highlights the potential for nurse staffing in the emergency department to have impact on patient experience. Juggling unpredictable patient acuity with care delivery time pressures and the need to meet patient needs creates a unique challenge for sustaining a quality ED patient experience. These challenges can set the stage for misalignment with patient expectations. Building upon the current literature, we propose that higher levels of staffing can address various aspects of these challenges and enable nurses to better meet patient expectations by providing timely care and quality updates. We therefore formulated 2 research questions:

Research Question 1: Are higher levels of ED RN staffing positively associated with higher patient experience ratings?

Research Question 2: Is the relationship between ED RN staffing and patient experience stronger among patients discharged from the emergency department compared with patients admitted to the hospital?

We also submit that the ability of ED RN staffing to align expectations and perceptions of performance are temporally and contextually bound. As patients experience more encounters during their visit (eg, are admitted to the hospital), the perceptions of ED RN performance will be replaced by interactions and perceptions of performance of other caregivers (eg, inpatient staff, inpatient nurses). Moreover, patients who are eventually admitted to the hospital from emergency departments may be more acutely ill and thus may receive more care while in the emergency department. Consequently, the relationship between ED RN staffing and patient experience will be weaker (or even nonexistent) for patients admitted to the hospital from the emergency department.

Methods

RESEARCH SETTING

This study was conducted using data gathered from adult ED patients who visited the emergency department of a large academic medical center in the southeastern United States between March 1, 2015, and November 30, 2015. The hospital is a 1,011-bed facility that is also an American College of Surgeons (ACS)-verified Level I trauma center and accredited as both a stroke and chest pain center. The medical center offers diverse clinical programs and levels of care. The emergency department has more than 95,000 visits per year.

DATA SOURCES

The study used both an ED-based survey and an inpatient-based survey developed and administered by Press Ganey, a national vendor for patient experience measurement used by hospitals to collect CMS-required patient experience data. On average, approximately two thirds (62%) of the ED patients in the study facility are treated and discharged from the emergency department, and the remaining one third of patients are admitted to the hospital. The ED-based survey was mailed only to patients who were treated and discharged, and the inpatient-based survey data for this study focused on those patients who were admitted to the hospital via the emergency department.

A total of 32,743 surveys were mailed to patients during the study period. The final analytic data set consisted of 1,260 responses from respondents treated and discharged from the emergency department (6.1% response rate) and 1,860 responses from respondents admitted from the emergency department (15.4%), for an overall sample of 3,120 respondents (9.5% response rate). The data set excluded any patients below the age of 18 as well as patients discharged to skilled nursing facilities, forensic patients, hospice patients, behavioral health patients, patients who received rehabilitation services, or patients who died while in the hospital.

ED RN hours were obtained from the hospital payroll system. The system includes payroll data at the individual RN level by shift, by work unit, and by payroll code that indicates the type of time for which the RN is paid (eg, productive, education, vacation). For purposes of this study, only pay codes related to direct care/bedside care were included; education time, vacation time, and other