OBJECTIVES
The objective of this study was to find out how patient experience in a hospital relates to quality and safety in the hospital, specific to medical and surgical services.

The relationship between patients’ perception of care and measures of hospital quality and safety


Key Concepts/Context
Patient experience in hospitals is measured using the Hospital Consumer Assessment of Healthcare Providers and Systems (HCAHPS) survey. Administered to medical, surgical, and obstetric patients, this survey measures nine aspects of care quality. The Hospital Quality Alliance (HQA), an alliance of public and private healthcare systems, indicates norms pertaining to process measures to maintain and improve quality of care for three specific medical conditions: acute myocardial infarction (AMI), congestive heart failure (CHF), and pneumonia. Patient Safety Indicators (PSIs) are technical markers developed by the Agency for Healthcare Research and Quality (AHRQ) for hospital safety. In this study the authors analyzed hospital performance on care as rated by patients in medical and surgical units with care processes and safety measures using HCAHPS, HQA, and PSI data. The study found that patient experiences are significantly associated with technical quality and safety in hospitals.

Methods
Data from three sources were analyzed for this study – 2007 HCAHPS data for 927 hospitals (from the National CAHPS Benchmarking Database (NCBD)), data pertaining to care processes (from HQA), and PSI data from AHRQ. The HQA data analyzed pertained to 10 core processes of care in medical conditions, while for surgery, all measures reported by the hospital were analyzed. The PSI data was obtained for Medicare beneficiaries who were 65 and older; hospitals with a PSI rate of less than two cases per 1000 patients were excluded from the analyses. These criteria resulted in analyzing data pertaining to the following medical PSIs: decubitus ulcer, failure to rescue, and selected infections due to medical care. Correlation coefficients were determined for HCAHPS scores and HQA data and HCAHPS scores and PSI data.
SYNOPSIS

Findings

The study yielded the following findings:

Care processes:

- Better quality of the processes of care in the hospitals for AMI and pneumonia were significantly associated with patient experience in the following aspects of HCAHPS (P<0.05):
  - AMI – all aspects except
    - Overall rating of hospital
    - Would recommend hospital
    - Communication with nurses
    - Communication about medications
    - Pain management
    - Responsiveness of medical staff
    - Discharge information
  - Pneumonia – all nine aspects
  - In the case of CHF, care processes had a significant association with only two aspects –
    - Overall rating of hospital
    - Would recommend hospital

- The processes of care in the hospitals for surgery were significantly associated with patient experience in the all aspects of HCAHPS (P<0.05).

- Patient experience with regard to ‘clean and quiet hospital environment’ had a significant relation with the quality of care processes related to pneumonia (P<0.001) and to surgery (P<0.001).

Patient safety indicators:

Medical PSIs:

- Better patient experience was related to lower rates of decubitus ulcers in medical patients in all aspects of HCAHPS (P<0.0001 – P<0.001).

- Infections due to medical care significantly decreased with increase in the following aspects of HCAHPS:
  - Communication with doctors (P<0.0001)
  - Communication with nurses (P=0.01)
  - Clean and quiet hospital environment (P<0.0001)

DESIGN IMPLICATIONS

The article indicates that patients considered a quiet hospital environment as reflective of the quality of care. Surgical and medical PSIs were also considered to be related to a clean and quiet hospital environment.
SYNOPSIS

- Responsiveness of medical staff (P<0.001)

Failure to rescue and HCAHPS scores did not show any association.

Surgical PSIs:

- Post-operative respiratory failure and post-operative pulmonary embolism were significantly associated with (P<0.05)
  - Overall rating of hospital
  - Would recommend hospital
  - Communication with nurses
  - Pain management
  - Responsiveness of medical staff

- Patient experience with regard to ‘clean and quiet hospital environment’ had a significant relation with medical PSIs of decubitus ulcers and infections due to medical care (both P<0.0001).

Limitations

The authors indicate that this study had the following limitations:

- Data was collected for more than 800 hospitals instead of for all hospitals reporting to HQA.
- HQA measures pertain to only a subset of medical and surgical care.
- The validity of PSIs as measures of safety have not been proven.
- The multiple statistical tests conducted to examine relationships could potentially have created false-positive results.
- Even though the HCAHPS and PSI data are adjusted for case mix, it is possible that perceptions of care and outcomes were impacted by the severity of patients’ illnesses.
- The data was comprised of patients treated over different periods.