Analyzing the Relationship between Hospital Readmissions and Patient Satisfaction using the Hospital Consumer Assessment of Healthcare Providers (HCAHPS) and Hospital Compare Data

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Background

- Hospital readmissions are becoming more and more linked to reimbursement, and this has greatly affected the importance of quality of care and appropriate discharge to long-term care facilities or community-based care.
- Research has been conducted focusing on readmissions but, to date, none of the studies have used the Hospital Consumer Assessment of Healthcare Providers (HCAHPS) data to draw comparisons between patient satisfaction with their care and data on readmissions, as captured in the Hospital Compare dataset, available from the Centers for Medicare and Medicaid Services (CMS). Both of these datasets are publicly available.
- Given this void in the research, it was determined that this study should focus on the relationship, if any, between patient satisfaction and readmission rates (both overall and cause-specific) in hospitals.

Hypothesis

- The current study analyzes whether patient satisfaction, as measured using the star ratings in the HCAHPS data, is correlated with measures of readmission at a particular hospital for cause-specific readmissions rates, measured using the CMS data.
- The current study proposes to analyze whether patient satisfaction is correlated with measure of readmission at a particular hospital for cause-specific readmission rates, measured using HCAHPS and CMS data, respectively.
- Analyses will also determine if certain hospital structural characteristics (e.g., hospital type, profit status, provision of emergency services) correlate with patient satisfaction and readmission rates.

Methods

- This study evaluated hospitals (n = 885) in eight Midwest states: Illinois, Indiana, Iowa, Michigan, Minnesota, North Dakota, South Dakota, and Wisconsin.
- Hospital Compare data includes overall readmission rates for each hospital, as well as cause-specific readmission rates by condition (e.g., heart attack, heart failure, pneumonia, chronic obstructive pulmonary disease (COPD), stroke, hip/knee surgeries).
- HCAHPS data includes star ratings for each of the following areas: nurse communication, doctor communication, staff responsiveness, pain management, communication about medications, discharge information, care transitions, and recommending the hospital.
- All analyses are based on 2011 - 2014 HCAHPS and CMS Hospital Compare data, and were conducted using SPSS 20 and Excel 2016.

Results

- The relationship between profit status and the overall readmission rate was statistically significant (F(31, 803) = 1.90, p < .001). There was also a significant relationship between profit status and the overall star rating (F(4, 631) = 2.71, p = .03), with for-profit hospitals having higher star ratings than nonprofits. A hospital’s overall star rating was correlated with their overall readmission rate (rho = -.195, p < .01), where higher star ratings showed lower overall readmission rates.
- To analyze any relationship between patient satisfaction and readmission, the overall star rating of a hospital was compared to six cause-specific readmission rates. Heart attack (rho = -.163, p < .01), heart failure (rho = -.131, p < .01), hip/knee surgeries (rho = -.129, p < .01), pneumonia (rho = -.194, p < .01), and stroke (rho = -.164, p < .01) readmission rates were correlated with the overall star rating. As each of these five readmission rates decreased (COPD was not significant), there was, in each, an increase in overall star ratings for the hospital.
- To further evaluate this relationship, the overall readmissions rate was compared to seven star ratings from HCAHPS. Nurse communication (rho = -.151), doctor communication (rho = -.194), staff responsiveness (rho = -.199), pain management (rho = -.182), communication about medications while admitted (rho = -.164), information provided at discharge (rho = -.281), and information on a patient’s care transition (rho = -.310) star ratings, all seven included in analyses, were significantly correlated, at the p < .01 level, with a hospital’s overall readmission rate. As a hospital’s overall readmission rate decreased, the individual star ratings indicating patient satisfaction increased.
- The current study proposes to analyze whether patient satisfaction is measured using the star ratings in the HCAHPS data, is correlated with measures of readmission at a particular hospital for cause-specific readmissions, measured using HCAHPS and CMS data, respectively.
- The current study analyzes whether patient satisfaction, as measured using the star ratings in the HCAHPS data, is correlated with measures of readmission at a particular hospital for cause-specific readmissions rates, measured using the CMS data.
- Analyses will also determine if certain hospital structural characteristics (e.g., hospital type, profit status, provision of emergency services) correlate with patient satisfaction and readmission rates.

Conclusions and Discussion

- For-profit status effects patient satisfaction, but profit status in general has no effect on readmission rates post-discharge.
- A relationship existed between patient satisfaction between the overall star rating and cause-specific readmissions, as well as between overall readmission rates and individual patient satisfaction indicators.
- These results indicate that an increased focus on improving readmission rates (i.e., overall and cause-specific) can yield positive results the patient satisfaction rates of a hospital.
- Additional efforts by nonprofit and government-owned hospital to further decrease readmission rates may be warranted to improve overall patient satisfaction at these locations.

Future Research

- Future research should conduct analyses and include all hospitals in the United States to determine if any regional differences exist.
- Analyses that distinguish patient satisfaction of those not readmitted vs. those readmitted after their survey may add valuable information.