Patient Satisfaction Surveys and Quality of Care: An Information Paper

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With passage of the Patient Protection and Affordable Care Act of 2010, payment incentives were created to improve the "value" of health care delivery. Because physicians and physician practices aim to deliver care that is both clinically effective and patient centered, it is important to understand the association between the patient experience and quality health outcomes. Surveys have become a tool with which to quantify the consumer experience. In addition, results of these surveys are playing an increasingly important role in determining hospital payment. Given that the patient experience is being used as a surrogate marker for quality and value of health care delivery, we will review the patient experience–related pay-for-performance programs and effect on emergency medicine, discuss the literature describing the association between quality and the patient-reported experience, and discuss future opportunities for emergency medicine. [Ann Emerg Med. 2014;64:351-357.]

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INTRODUCTION

Background

The Institute of Medicine 2001 report *Crossing the Quality Chasm*[1] stated that "the U.S. delivery system does not provide consistent, high quality medical care to all people." The Institute of Medicine defined 6 aims on which to reengineer health care delivery systems. It posited that health care should be safe, effective, patient-centered, timely, efficient, and equitable. The report did not include patient satisfaction as one of its dimensions of quality and specifically noted that the decision to omit satisfaction ratings was purposeful because they did not consider it an adequate measure. Despite this, patient satisfaction survey tools are increasingly used by payers and hospitals to measure value in the US health care system.[2] Under the Patient Protection and Affordable Care Act of 2010, results of these surveys will play an increasing important role in determining hospital and emergency department (ED) reimbursement.[3]

Given that the patient experience is being used as a surrogate marker for quality and value of health care delivery, we will review the patient experience–related pay-for-performance programs and effect on emergency medicine, discuss the literature describing the association between quality and the patient-reported experience, and discuss future opportunities for emergency medicine.

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Patient Experience and Pay For Performance Programs

Consumer satisfaction has long been an important outcome measure of service-based industries. Surveys have become a tool to quantify the consumer experience. In 2006, the Hospital Consumer Assessment of Healthcare Providers and Systems (HCAHPS) Survey became the "first national, standardized, publicly reported survey of patients' perspectives of hospital care."[2] This survey was codeveloped by the Centers for Medicaid & Medicare Services and the Agency for Healthcare Research and Quality and endorsed by the National Quality Forum. The HCAHPS survey is a 32-item data collection instrument used to ascertain patients' perception of their inpatient hospital experience.

The survey methodology for HCAHPS is a random sampling of adult patients 48 hours to 6 weeks after hospital discharge. Using common metrics, hospitals may choose to survey on their own or use a survey vendor (eg, Press Ganey and Associates, Avatar Solutions). Surveys may be performed by telephone, mail, or interactive voice recognition and are typically offered in 5 languages. The target minimum number of returned surveys per year is 300 and may include non-Medicare patients. HCAHPS excludes patients younger than 18 years, patients who died in the hospital, patients discharged to hospice, patients discharged with a primary psychiatric diagnosis, prisoners, patients with international addresses, and "no contact" patients. Questions are categorized into 8 general composites (Figure 1). In 2013, specific questions about admission through the ED were added.

Editor's Capsule Summary

What is already known on this topic

Patient satisfaction is being increasingly used as a measure of health system performance through public reporting and pay-for-performance schemes.

What questions this study addressed

This article summarizes the literature examining the association between patient-reported experience and quality measures.

What this study adds to our knowledge

Reports examining the association between satisfaction and quality provide mixed and contradictory evidence, suggesting that clinical quality and patient experience may be different domains.

How this is relevant to clinical practice

Although patient satisfaction is an important element of patient experience, it should not be misinterpreted as a measure of clinical quality.

Acute care hospitals were given incentive to participate in HCAHPS with the implementation of the Deficit Reduction Act of 2005. Starting in July 2007, hospitals subject to the annual Inpatient Prospective Payment System (includes most acute care hospitals) were required to submit HCAHPS data to receive their full annual payment update or risk a 2% penalty. Non–Inpatient Prospective Payment System hospitals, such as critical access hospitals (rural community hospitals receiving cost-based reimbursement), may choose to voluntarily participate in HCAHPS. In 2008, HCAHPS performance rates were publicly reported for the first time.

The payment incentive for Inpatient Prospective Payment System hospitals to improve patient experience scores was broadened by passage of the Patient Protection and Affordable Care Act (P.L. 111 to 148).[3] The act specifically included HCAHPS performance in the calculation of the Hospital Value-Based Purchasing program incentive payment starting in October 2012. In 2014, the program will link a portion of the Inpatient Prospective Payment System Centers for Medicaid & Medicare Services payment to performance on a set of quality measures (Figure 2). Hospital Value-Based Purchasing uses HCAHPS scores from a baseline and performance period. For fiscal year 2014, the baseline period includes patients discharged during April 1, 2010, through December 31, 2010. The performance period includes patients discharged April 1, 2012, through December 31, 2012. The percentage of a hospital's patients who chose the most positive (ie, a rating of 5 on a 1-to-5 scale) or "top-box" response in the dimensions is used to calculate the score.

1. How well nurses communicate with patients
2. How well physicians communicate with patients
3. How responsive hospital staff are to patients' needs
4. How well hospital staff help patients manage pain
5. How well the staff communicates with patients about new medicines
6. Whether key information is provided at discharge
7. Cleanliness and quietness of patients' rooms
8. Patients' overall rating of the hospital: whether the patient would recommend the hospital to family and friends

Figure 1. HCAPHS questionnaire composite topics.
Notes from Centers for Medicaid & Medicare Services about methodology:
Patient Experience of Care Domain score is composed of 2 parts: the HCAHPS base score (maximum of 80 points) and the HCAHPS consistency score (maximum of 20 points). Each of the 8 HCAHPS dimensions contributes to the HCAHPS base score through either improvement or achievement points. "Improvement" is the amount of change in a hospital's HCAHPS dimension from the earlier baseline period to the performance period. "Achievement" is the comparison of each dimension in the performance period to the national median for that dimension in the baseline period. The larger of the improvement or achievement points for each dimension is used to calculate a hospital's HCAHPS base score. The second part of the Patient Experience of Care Domain is the HCAHPS consistency score, which ranges from 0 to 20 points. The consistency score is designed to target and further provide incentive for improvement in a hospital's lowest-performing HCAHPS dimension. The Patient Experience of Care Domain score (0 to 100 points) is the sum of the HCAHPS base score (0 to 80 points) and HCAHPS consistency score (0 to 20 points).

Each of the 8 HCAHPS dimensions contributes to the HCAHPS base score through either an improvement or achievement score. Improvement is the amount of change in an HCAHPS dimension from the earlier baseline period to the later performance period. Achievement is the comparison of each dimension in the performance period to the national median for that dimension during the baseline period. The larger of the improvement or achievement score for each dimension is used to calculate a hospital's HCAHPS base score.[2]

Currently, ED patients are potentially surveyed with HCAHPS (if they are admitted to the hospital) or one of several outpatient survey tools (such as the ED survey administered by Press Ganey and Associates) if they are discharged from the ED. However, the ED is a unique setting, and recently it has been recognized that discrete survey tools should be developed for EDs.

In December 2012, the Centers for Medicare & Medicaid Services announced a request for a proposal by the Federal

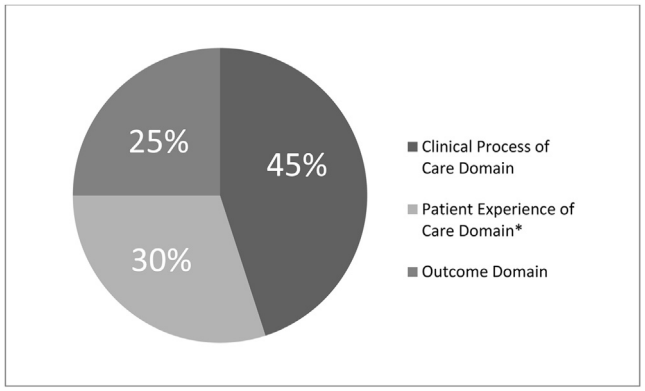

Figure 2. 2014 Hospital Value-Based Purchasing program.

Register for the development of an ED CAHPS survey program.[4] Per the request, "[t]he target population for the emergency department patient experience of care survey [is] consumers/patients and caregivers of patients who received emergency department care." A draft instrument codeveloped with the RAND Corporation of 63 questions is currently being piloted. Similar to the HCAHPS, this survey will likely emphasize communication, pain management, courteousness, and efficiency of care. Public comment about the draft tool is expected in the spring of 2014.

Does Patient Satisfaction Equal Quality? A Review of Literature

As noted in the American College of Emergency Physicians (ACEP) policy statement on patient satisfaction surveys,[5] there is certainly valuable information to be gained from patient satisfaction surveys. However, it is difficult to differentiate whether the scores are a result of physician performance or due to demands and restrictions of the current health care system or other factors out of the physician's control. Furthermore, it is unclear whether patient satisfaction scores are in fact associated with high-quality medical care or clinical outcomes. As a result, the 2012-2013 Emergency Medicine Practice Committee of the ACEP was asked to develop an information paper on patient satisfaction and clinical quality of care. This work was reviewed by the ACEP Board of Directors.

A secondary analysis of this topic was subsequently undertaken by the authors. Following published guidelines,[6] a search of MEDLINE (1996 to December 2013) and PubMed (1996 to December 2013) was conducted with the search terms "patient satisfaction or patient relations or patient experience" and "quality of care or quality of health care or quality assurance or quality improvement or quality indicators." Non–English-language publications were eliminated. A total of 848 articles were identified. Two independent reviewers (H.F. and C.M.C.) then screened the titles and abstracts of identified studies for potential eligibility. After the initial relevance screen, a κ statistic was calculated to quantify agreement (κ=0.68). In cases of disagreement, consensus was reached through discussion between the reviewers. Complete articles of all studies deemed potentially relevant were obtained and reviewed for inclusion (n=51). Of those, 26 discussed the association between patient satisfaction and quality health care outcomes and were included. Reference lists of selected articles were also screened to identify additional pertinent studies for inclusion.

A similar review of the current academic published literature conducted by Manary et al[7] demonstrated little consensus about the association between the patient experience and the technical quality of care as related to improved health outcomes measures. Nevertheless, the authors suggested that the patient experience remains a valuable independent outcome measure and encouraged increased focus on efforts associated with both satisfaction and quality.

A number of studies have failed to demonstrate an association between patient satisfaction and the clinical technical quality of care.[8-19] For instance, Chang et al[10] found no relationship between patients' experiences and the quality of clinical care among elderly patients in 2 managed care organizations. Lyu et al[20] reported that in their study of surgical patients, "patient satisfaction was independent of hospital compliance with surgical processes of quality of care and with overall hospital employee safety culture," and suggested that "further study is needed before [patient satisfaction] is applied widely to surgeons as a quality indicator."[8] One cohort study compared elderly patient reports of overall quality of care within a managed care setting with various clinical measures determined by chart review and patient interview. The authors reported no association between comprehensive technical measures of quality and "global quality of care" ratings. A study by Hutchison et al[21] went further, suggesting that there is actually an *inverse* relationship between quality of care and patient satisfaction. After compiling patient satisfaction scores from family practice clinics, walk-in clinics, and local EDs in Ontario, Canada, the authors reported lower patient satisfaction scores in practice settings where higher quality of care scores, as assessed by standardized measures, were obtained. Another study, by Fenton et al,[22] demonstrated that higher patient satisfaction was associated with decreased ED use but a higher use of inpatient admissions and increased health care and prescription drug costs and overall increased mortality rates.

On the other hand, numerous studies have reported the positive association between patient satisfaction and patient compliance with recommended medical treatments and care plans.[23-29] A growing body of research has opined that the patient experience is a valuable measure of quality.[7,30-33] Several studies report an association between subjective patient-reported quality-of-life or quality-of-care metrics and satisfaction.[34-41] Many of the data correlating improved objective health outcomes to a positive patient experience have been related to care of cardiac patients.[42-45] An analysis of patient-reported satisfaction measures after hospitalization for acute myocardial infarction found a positive association with both performance measures and improved risk-adjusted mortality.[42] In another study, Jha et al[46]

reported that hospitals with a high level of patient satisfaction provided clinical care that was higher in quality for the conditions examined (pneumonia and post–myocardial infarction). They also found that high nurse-staffing levels were associated with improved patient experience measures. Other studies have reported a link between quality of care and patient satisfaction, but study or limitations prevent generalization of results to the practice of emergency medicine.[47-50]

DISCUSSION

Because ED providers aim to deliver care that is both clinically effective and patient centered, it is important to understand the association between the patient experience, clinical measures of technical quality, and quality health outcomes.[51] Previous work has demonstrated that as many as half of Americans have not received evidenced-based recommended preventive, acute, and chronic care services.[52,53] In addition, impressive variability in cost and quality outcome measures have been an important catalyst of health care payment reforms that seek to align provider incentives with eliminating waste, optimizing resources, improving quality, and reducing total costs.[3,54] Centers for Medicaid & Medicare Services and other payers view value-based purchasing programs as an important driver to overhaul payment systems. The stated goal is to move increasingly toward rewarding better value, outcomes, and innovations while moving away from a volume-based fee-for-service payment system.[55]

The inclusion of patient experience as a pillar of quality is often justified on the grounds that it has intrinsic value and represents benevolent and empathic care.[56] Conceptual models of the determinants of care quality exist; these include patient factors, clinical factors (eg, physical health and comorbid conditions), technical quality, interpersonal quality, and what Donabedian[57] described as "global rating of health care." The importance of patient-centered care has been debated,[58] but patient ratings of care are often used by payers, consumers, and facilities to critique the quality of health care received.

A review of the current academic literature appears to be divided on the relationship between the patient experience and objective measures of quality. Patient factors, including age, ethnicity, and educational level, have been identified as important determinants of health care preferences.[59] In addition, some studies demonstrate that the quantity of testing performed positively influences the patient experience.[30,60,61] Furthermore, some have argued that patient satisfaction survey tools and financial incentives that focus on improving patients' pain create a perverse motivation to overprescribe opioids.[62-64] The subjectivity of individual interpretation of the quality of service provided, in addition to the influence of expectation bias, makes interpretation of patient experience ratings challenging.[65-68]

Review of HCAHPS data demonstrates that patients' perception of the quality of nursing communication is more likely to influence overall patient satisfaction scores than physician communication.[69] In addition, improved outcomes may bias results of surveys because patients with better health outcomes might also be more likely to complete their patient satisfaction survey.[42] As a result, many, including the American Medical Association, criticize the use of patient satisfaction measures as a validated tool for judging physician performance.[70,71]

We believe that current evidence demonstrates that patient satisfaction is not a validated proxy for quality and that other more sensitive and specific measures should be used to determine the quality of health care delivery. The measures focus disproportionately on interpersonal relationships, are disproportionately influenced by patients' expectations about their care a priori, and are confounded by non–quality-related process measures.[7] This problem is particularly acute in the ED, where efficiency of care and crowding are known to disproportionately affect patient satisfaction.[72-74]

Unfortunately, policymakers and hospital leadership have conflated satisfaction and quality where the association between a patient's perception of care and the technical quality of services rendered and subsequent effect on desired patient outcomes are not validated. We believe that the inclusion of a separate domain for the patient experience in payment programs, like that of the value based modifier, is a worthwhile measure of patient-centered care. Satisfaction of customers is important in any service industry but should be used as a discreet outcome measure, a valuable goal in and of itself.

Although surveys can be a reasonable way to gain insight into patients' experience of care, they are not appropriate tools to ascertain other objective elements of quality of care delivery. Payment incentives for hospitals to improve ED patient experience could have a positive influence on ED operations by giving incentive for improved hospital throughput. Satisfied customers can also have a positive effect on future fiscal performance with "repurchase" decisions.[75] In addition, monitoring patient experience may mitigate individual physician malpractice risk.[76-78] However, patient experience as a domain of quality within the Value-Based Purchasing modifier exacerbates the misperception of quality.

Recognizing the importance of this topic to the practice of emergency medicine, we support the proposed research agenda put forward by Boudreaux and O'Hea[79] in 2004. Given the persistent gaps in knowledge, we also recommend that research efforts consider the following:

- understanding the limitations of ED patient experience surveys
- developing assessment tools that correlate appropriately with ED care and that help drive effective outcomes
- understanding the effect of unique ED factors that influence the patient experience and high-impact mitigation factors
- understanding a study performed by the RAND Corporation that found an association between physician job satisfaction and patient satisfaction[80]

More research is needed to determine whether regulatory bodies should consider developing measures of physician satisfaction as a means to achieve improved patient outcomes.

In conclusion, although research surrounding the patient experience has been described extensively in the literature, the

evidence validating an association between patient satisfaction and objective measures of quality of care is mixed and contradictory at best. Clinical quality and the patient experience are interdependent distinct domains, requiring separate measurement, monitoring, and incentive initiatives. Despite this fact, with the regulatory implementation of the Patient Protection and Affordable Care Act, it is likely we will see increasing overlap between the two. Emergency medicine would be well served by exploring this relationship and its effect on the delivery of emergency care to better inform policymakers.

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APPENDIX

Members of the ACEP Emergency Medicine Practice Committee, Subcommittee on Patient Satisfaction, May 2013:

Jennifer L. Wiler, MD, MBA, Chair, Emergency Medicine Practice Committee
Enrique R. Enguidanos, MD, Cochair, Subcommittee on Patient Satisfaction
Heather Farley, MD, Cochair, Subcommittee on Patient Satisfaction
Christian M. Coletti, MD
Leah Honigman, MD
Anthony Mazzeo, MD
Thomas B. Pinson, MD, MBA
Kevin Reed, MD

IMAGES IN EMERGENCY MEDICINE

(continued from p. 350)

DIAGNOSIS:

Emphysematous cholecystitis. Emphysematous cholecystitis is caused by gas-producing bacteria that thrive in response to vascular compromise of the gallbladder wall and is a surgical emergency leading to gangrenous and perforated gallbladder when left untreated.[1,2] Accounting for less than 1% of all acute cholecystitis cases, emphysematous cholecystitis carries a 20% mortality rate.[1-3] Risk factors include age greater than 50 years, male sex, diabetes, and peripheral vascular disease.[4] Diagnosis can be challenging because only half of patients with the disease have gallstones, and common signs of cholecystitis (such as fever, leukocytosis, and Murphy's sign) are inconsistently present.[1]

Bedside ultrasonography may expedite definitive care by rapid detection of air within the gallbladder lumen or wall.[5] Sonographic findings include nondependent echogenic foci from air within the gallbladder. Reverberation artifact and high-level echoes cast characteristic "dirty shadows," often obscuring the gallbladder.[5] CT is most sensitive in confirming the diagnosis of gas within the gallbladder lumen or the wall of the gallbladder.[2,5]

This patient received intravenous antibiotics and percutaneous gallbladder aspiration with placement of a cholecystostomy tube. He was discharged after 3 days, without complication.

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