

Improving the Inpatient Experience

The following summaries of recent peer-reviewed articles describe the benefits of improving the inpatient experience and reducing suffering in hospital settings. Citations are linked to full-text articles [*] when available. [PG] denotes Press Ganey research.

Study	Objective	Conclusion
<p>[*] Betts, D., & Balan-Cohen, A. (2017). Value of patient experience: Hospitals with higher patient experience scores have higher clinical quality. Deloitte Center for Health Solutions.</p>	<p>To examine the association between patient experience scores and a broad range of hospital clinical quality measures.</p>	<ul style="list-style-type: none"> Hospitals with higher patient reported experience ratings have better process of care quality scores and clinical outcomes. Clinical quality measures that are more visible to patients are more strongly associated with patient experience. Communication with nurses and relevant discharge information enhance patient experience, and are strongly associated with clinical quality.
<p>Cooper, W. O., Guillaumondegui, O., Hines, O. J., Hultman, C. S., Kelz, R. R., Shen P, . . . Hickson, G. B. (2017). Use of unsolicited patient observations to identify surgeons with increased risk for postoperative complications. <i>JAMA Surgery</i>, 152(6), 522-529.</p>	<p>To determine whether patients of surgeons with a history of higher numbers of unsolicited patient observations are at greater risk for postoperative complications than patients of other surgeons.</p>	<ul style="list-style-type: none"> The distribution of malpractice claims among physicians is not random; a small number of clinicians account for a disproportionate share of total cases of and expenditures associated with malpractice. Patients whose surgeons have large numbers of unsolicited patient observations are at increased risk of surgical and medical complications. Efforts to promote patient safety and address risk of malpractice claims should focus on surgeons' ability to communicate respectfully and effectively with patients and other medical professionals.
<p>[*] Doyle, J. J., Jr., Graves, J. A., & Gruber, J. (2017). Evaluating measures of hospital quality. National Bureau of Economic Research.</p>	<p>To study the causal relationship between hospital quality measures and patient outcomes.</p>	<ul style="list-style-type: none"> Hospitals that perform better on quality measures have better patient outcomes and lower long-term mortality. Hospital readmission rates have a strong positive effect on the odds of readmission. Higher patient satisfaction scores are linked to lower odds of readmission and death.
<p>[*PG] Lee, T. H. (2017, May 31). How U.S. health care got safer by focusing on the patient experience. <i>Harvard Business Review</i>.</p>	<p>To determine whether organizations with better patient experience also have better safety records and better financial margins.</p>	<ul style="list-style-type: none"> For every comparison, clinical quality performance is better in the hospitals with better patient experience performance. Hospitals with better safety and patient experience performance also have better financial performance. Engaged physicians, nurses, and other personnel—people who are proud of their organization, who believe it is committed to quality and safety, and who consider teamwork a core value—perform better.
<p>Richter, J. P., & Muhlestein, D. B. (2017). Patient experience and</p>	<p>To assess whether, independent of a direct financial impact, a more</p>	<ul style="list-style-type: none"> A positive patient experience is associated with increased profitability, and a negative patient experience is even more strongly associated with

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<p>hospital profitability: Is there a link? <i>Health Care Management Review</i>, 42(3), 247-257.</p>	<p>positive patient experience is associated with increased profitability.</p>	<p>decreased profitability.</p> <ul style="list-style-type: none"> The findings indicate that patient experience may have a sizable impact on profitability and should command the attention of hospital management.
<p>[*] Betts, D., Balan-Cohen, A., Shukla, M., & Kumar, N. (2016). The value of patient experience: Hospitals with better patient-reported experience perform better financially. Deloitte Center for Health Solutions.</p>	<p>To study the association between better patient-reported experience scores and hospital financial performance.</p>	<ul style="list-style-type: none"> Hospitals with high patient-reported experience scores have higher profitability: The association of patient experience with financial performance is large, even after controlling for other hospital characteristics that can drive hospital performance. Hospitals with better experience levels earn disproportionately more than they spend compared to those with lower ratings. A highly engaged staff boosts patient experience, translating into better performance.
<p>[*] Hincapie, A. L., Slack, M., Malone, D. C., MacKinnon, N. J., & Warholak, T. L. (2016). Relationship between patients' perceptions of care quality and health care errors in 11 countries: A secondary data analysis. <i>Quality Management in Health Care</i>, 25(1), 13-21.</p>	<p>To evaluate the association between patients' perceived health care quality and self-reported medical, medication, and laboratory errors in a multinational sample of 11 countries.</p>	<ul style="list-style-type: none"> Coordination of care is a predictor of self-reported health-related errors: An increase in respondents' perceptions of care coordination decreased the odds of self-reporting medical errors, medication errors, and laboratory errors. Patients may be the most reliable reporters of some aspects of the health care process; their perspectives should be considered when pursuing changes to improve patient safety.
<p>[*] Lee, V. S., Miller, T., Daniels, C., Paine, M., Gresh, B., & Betz, A. L. (2016). Creating the exceptional patient experience in one academic health system. <i>Academic Medicine</i>, 91(3), 338-344.</p>	<p>To describe a seven-year initiative to change the culture of the University of Utah Health Care system to deliver a consistently exceptional patient experience.</p>	<ul style="list-style-type: none"> Meta-analyses and reviews have shown that high patient satisfaction correlates with improved outcomes. Neither the quality nor the cost of care suffered over the course of the improvement initiative. Malpractice premiums declined from \$10.7 million in 2007 to \$7.3 million in 2012, despite a significant increase in the number of physicians practicing and a more than 40% increase in professional revenue.
<p>[*] Trzeciak, S., Gaughan, J. P., Bosire, J., & Mazzairelli, A. J. (2016). Association between Medicare summary star ratings for patient experience and clinical outcomes in US hospitals. <i>Journal of Patient Experience</i>, 3(1), 6-9.</p>	<p>To test the association between Centers for Medicare and Medicaid Services (CMS) patient experience star ratings and clinical outcomes.</p>	<ul style="list-style-type: none"> Better patient experience is associated with favorable clinical outcomes: A higher number of stars for patient experience had a statistically significant association with lower rates of many in-hospital complications. A higher patient experience star rating also had a statistically significant association with lower rates of unplanned readmissions to the hospital within 30 days. The results support payer inclusion of patient experience data in the framework of payments to health care organizations.
<p>[*] Anhang Price, R., Elliott,</p>	<p>To address common</p>	<ul style="list-style-type: none"> To evaluate patient-centeredness, an essential

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<p>M. N., Cleary, P. D., Zaslavsky, A. M., & Hays, R. D. (2015). Should health care providers be accountable for patients' care experiences? <i>Journal of General Internal Medicine</i>, 30(2), 253-256.</p>	<p>critiques of patient experience measures.</p>	<p>element of health care quality, patients' voices must be heard.</p> <ul style="list-style-type: none"> ■ Patient experience measures based on rigorously developed and implemented patient surveys can: <ul style="list-style-type: none"> – Overcome concerns regarding the relevance, fairness, and unintended consequences of surveys – Facilitate providers' efforts to improve patients' experiences of care – Complement other quality measures designed to inform patients' decisions
<p>[*] Centers for Medicare & Medicaid Services. (2015). 2015 National Impact Assessment of the Centers for Medicare & Medicaid Services (CMS) Quality Measures Report. Baltimore, MD: Author.</p>	<p>To assess the relationship between hospital-level patient-reported experience of care and risk-adjusted Medicare spending for hospitalization and 30-day post-hospital care.</p>	<ul style="list-style-type: none"> ■ A statistically significant relationship was found between positive patient-reported inpatient experiences and lower-than-expected pre-admissions, hospitalization, and 30-day post-discharge costs. ■ Hospitals where patients reported higher satisfaction with their inpatient experiences had lower-than-expected Medicare fee-for-service costs compared with hospitals with less positive patient-reported experiences of care. ■ Patient-experience reports as measured by HCAHPS reflect important elements that contribute to hospital efficiency (lower cost with higher quality).
<p>[*] Chatterjee, P., Tsai, T. C., & Jha, A. K. (2015). Delivering value by focusing on patient experience. <i>American Journal of Managed Care</i>, 21(10), 735-737.</p>	<p>To review evidence for the use of patient-reported experience as a quality metric.</p>	<ul style="list-style-type: none"> ■ Patient experience measures should be included in any quality measurement strategy. ■ Providers who perform well on patient experience also tend to score highly on measures of care processes and outcomes. ■ Encouraging positive patient experience will build trust in the health care system, guard against withholding of services in the face of changing provider incentives, and encourage patients to become accountable for and actively engage in their own care.
<p>[*] Sacks, G. D., Lawson, E. H., Dawes, A. J., Russell, M. M., Maggard-Gibbons, M., Zingmond, D. S., & Ko, C. Y. (2015). Relationship between hospital performance on a patient satisfaction survey and surgical quality. <i>JAMA Surgery</i>, 150(9), 858-864.</p>	<p>To determine whether hospital performance on a patient satisfaction survey is associated with objective measures of surgical quality.</p>	<ul style="list-style-type: none"> ■ Patients treated at hospitals with higher patient satisfaction scores experienced lower rates of 30-day mortality, failure to rescue, and minor complications. ■ Providing a high-quality patient experience need not preclude the delivery of high-quality care. ■ Payment policies that incentivize better patient experience do not require hospitals to sacrifice performance on other quality measures.
<p>Stein, S. M., Day, M., Karia, R., Hutzler, L., & Bosco, J. A., III (2015).</p>	<p>To study the correlation between patient perceptions of care</p>	<ul style="list-style-type: none"> ■ Patient experience is correlated with the quality of care provided. ■ There is an inverse relationship between patient

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<p>Patients' perceptions of care are associated with quality of hospital care: A survey of 4605 hospitals. <i>American Journal of Medical Quality</i>, 30(4), 382-388.</p>	<p>measured by HCAHPS and accepted quality of care indicators.</p>	<p>experience and complication rates. This negative correlation suggests that reducing complications can lead to better hospital experiences.</p> <ul style="list-style-type: none"> Optimizing quality of care while measuring patients' experience is an essential component of increasing health care value.
<p>Tajeu, G. S., Kazley, A. S., & Menachemi, N. (2015). Do hospitals that do the right thing have more satisfied patients? <i>Health Care Management Review</i>, 40(4), 348-355.</p>	<p>To determine if there is an association between process quality and patient satisfaction in a representative sample of U.S. hospitals.</p>	<ul style="list-style-type: none"> Patient satisfaction is positively associated with three areas of hospital process quality: heart failure, acute myocardial infarction, and pneumonia treatment. Focusing on process quality does not have negative implications for patient satisfaction.
<p>[*] Tsai, T. C., Orav, E. J., & Jha, A. K. (2015). Patient satisfaction and quality of surgical care in US hospitals. <i>Annals of Surgery</i>, 261(1), 2-8.</p>	<p>To examine if hospitals with high patient satisfaction have lower levels of performance on accepted measures of the quality and efficiency of surgical care.</p>	<ul style="list-style-type: none"> Hospitals with high patient satisfaction provide more efficient care and are associated with higher surgical quality. Hospitals with high patient satisfaction have shorter lengths of stay, higher surgical process quality, lower surgical readmission rates, and lower surgical mortality rates. There need not be a trade-off between good quality of care for surgical patients and ensuring a positive patient experience.
<p>[*] Anhang Price, R., Elliott, M. N., Zaslavsky, A. M., Hays, R. D., Lehrman, W. G., Rybowski, L., ... Cleary, P. D. (2014). Examining the role of patient experience surveys in measuring health care quality. <i>Medical Care Research and Review</i>, 71(5), 522-554.</p>	<p>To review the literature on the association between patient experiences and other measures of health care quality.</p>	<ul style="list-style-type: none"> Research indicates that better patient care experiences are associated with higher levels of adherence to recommended prevention and treatment processes, better clinical outcomes, better patient safety within hospitals, and less health care utilization. Patient experience surveys directly evaluate the degree to which care is patient centered, and thus capture an intrinsically important dimension of quality. Patient experience measures are appropriate complements for clinical process and outcome measures in public reporting and pay-for-performance programs.
<p>[*] Sheetz, K. H., Waits, S. A., Girotti, M. E., Campbell, D. A., Jr., & Englesbe, M. J. (2014). Patients' perspectives of care and surgical outcomes in Michigan: An analysis using the CAHPS hospital survey. <i>Annals of Surgery</i>, 260(1), 5-9.</p>	<p>To determine the relationship between postoperative morbidity and mortality and patients' perspectives of care.</p>	<ul style="list-style-type: none"> There are no significant differences in risk-adjusted morbidity and mortality rates between hospitals with the lowest and highest HCAHPS total scores. Patient perspectives of care do not correlate with the incidence of morbidity and mortality after major surgery. HCAHPS scores typically are reported at the institutional level whereas complications and death rates are limited to patients undergoing major surgery. The lack of relationship also may reflect

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<p>Banki, F., Ochoa, K., Carrillo, M. E., Leake, S. S., Estrera, A. L., Khalil, K., & Safi, H. J. (2013). A surgical team with focus on staff education in a community hospital improves outcomes, costs and patient satisfaction. <i>American Journal of Surgery</i>, 206(6), 1007-1014.</p>	<p>To assess improvements in outcomes, costs, and patient satisfaction after assembling a surgical team focused on staff education.</p>	<p>different dimensions of care, with morbidity and mortality measuring traditional dimensions of safety and HCAHPS capturing patient-centeredness, timeliness, and efficiency.</p> <ul style="list-style-type: none"> ■ There were significant reductions in operating time, length of stay, operating-room-related costs, and hospital-room-related costs after the team was assembled. ■ Survey results showed significant improvements in patient experiences with communication with nurses, communication about medications, pain management, discharge instructions, and overall rating. ■ Surgeon-patient interactions are only part of a patient's overall experience during hospitalization. Assembling a surgical team with a focus on staff education has a significant impact on outcomes, costs, and patient satisfaction.
<p>[*] Cosgrove, D. M., Fisher, M., Gabow, P., Gottlieb, G., Halvorson, G. C., James, B. C., ... Toussaint, J. S. (2013). Ten strategies to lower costs, improve quality, and engage patients: The view from leading health system CEOs. <i>Health Affairs</i>, 32(2), 321-327.</p>	<p>To review key strategies for reducing costs and waste while improving outcomes.</p>	<ul style="list-style-type: none"> ■ Patient-centeredness—the idea that care should be designed around patients' needs, preferences, circumstances, and well-being—is a central tenet of health care delivery. ■ Patient-centered care is quickly becoming a business imperative, with payments tied to performance on measures of patient satisfaction and engagement. ■ Patient-centered communication is associated with faster recovery, improved clinical outcomes, a better care experience, and fewer diagnostic tests and referrals.
<p>[*] Doyle, C., Lennox, L., & Bell, D. (2013). A systematic review of evidence on the links between patient experience and clinical safety and effectiveness. <i>BMJ Open</i>, 3.</p>	<p>To explore evidence of the links between patient experience and clinical safety and effectiveness outcomes.</p>	<ul style="list-style-type: none"> ■ Patient experience is positively associated with clinical effectiveness and patient safety and should be considered one of the central pillars of quality in health care. ■ Clinicians should resist sidelining patient experience as too subjective, divorced from the “real” clinical work of measuring safety and effectiveness.
<p>[*] Manary, M. P., Boulding, W., Staelin, R., & Glickman, S. W. (2013). The patient experience and health outcomes. <i>New England Journal of Medicine</i>, 368(3), 201-203.</p>	<p>To address common objections raised by health care providers and academics regarding patient-experience surveys.</p>	<ul style="list-style-type: none"> ■ Patient experience measures are robust, distinctive indicators of health care quality. ■ Studies show that patient-experience measures and the volume of services ordered are not correlated. In fact, increased patient engagement leads to lower resource use and greater patient satisfaction. ■ The debate should center not on whether patients can provide meaningful quality measures but on how to improve patient experiences.

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<p>McMillan, S. S., Kendall, E., Sav, A., King, M. A., Whitty, J. A., Kelly, F., & Wheeler, A. J. (2013). Patient-centered approaches to health care: A systematic review of randomized controlled trials. <i>Medical Care Research & Review</i>, 70(6), 567-596.</p>	<p>To evaluate the efficacy of patient-centered care interventions for people with chronic conditions.</p>	<ul style="list-style-type: none"> Interventions focused on training health professionals to improve communication skills and to engage patients in shared decision making hold the most potential for improving patient engagement and satisfaction. Providing patient-centered care does not require longer consultation or appointment times, but requires a qualitatively different interaction. The delivery of relatively minimal interventions can increase appropriate service use and minimize costly overuse of treatments.
<p>[*] National Quality Forum. (2013). Patient reported outcomes (PROs) in performance measurement. Washington, D.C.: Author.</p>	<p>To facilitate the groundwork for developing, testing, endorsing, and implementing patient-reported outcome performance measures.</p>	<ul style="list-style-type: none"> Experience with care is considered one type of patient-reported outcome. A patient's experience of care is his or her report of the quality of care received and should be treated equally to other health outcome performance measures. Measuring health outcomes to identify variability in performance is a key driver to identifying strategies for improvement.
<p>[*] Saman, D. M., Kavanagh, K. T., Johnson, B., & Lutfiyya, M. N. (2013). Can inpatient hospital experiences predict central line-associated bloodstream infections? <i>PLOS ONE</i>, 8(4).</p>	<p>To determine whether patient experiences are associated with increased risk for central line-associated bloodstream infections (CLABSIs) in intensive care units (ICUs).</p>	<ul style="list-style-type: none"> Inpatients' hospital experiences are associated with an increased risk of ICU-reported CLABSIs. Hospitals with lower staff responsiveness are particularly at risk for CLABSIs. Patient surveys may be a useful surrogate for predicting the incidence of hospital acquired conditions, including CLABSIs. Hospital leaders should regard poor patient survey scores as a possible symptom of safety problems at multiple levels in their delivery system and not just focus on improving isolated metrics.
<p>[PG] Wolosin, R., Ayala, L., & Fulton, B. R. (2012). Nursing care, inpatient satisfaction, and value-based purchasing: Vital connections. <i>Journal of Nursing Administration</i>, 42(6), 321-325.</p>	<p>To investigate how the patient experience predicts HCAHPS global rating scores.</p>	<ul style="list-style-type: none"> Each one-point increase in the nursing domain score increased the odds of achieving an HCAHPS top-box score by 4.9%. Hospital administrators wishing to maximize Medicare reimbursement will realize the greatest impact by improving patient satisfaction with nursing care.
<p>[*] Boulding, W., Glickman, S. W., Manary, M. P., Schulman, K. A., & Staelin, R. (2011). Relationship between patient satisfaction with inpatient care and hospital readmission within 30 days. <i>American Journal of</i></p>	<p>To determine whether hospitals where patients report higher overall satisfaction are more likely to have lower 30-day readmission rates after adjusting for hospital clinical performance.</p>	<ul style="list-style-type: none"> Although the key drivers of hospital readmission are complex, patients' perspectives of inpatient care and discharge planning provide valuable insights into hospital performance with respect to quality. High patient satisfaction with inpatient care and discharge planning are associated with lower 30-day risk-standardized hospital readmission rates after adjusting for clinical quality. Measuring the patient experience plays a vital role in

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<i>Managed Care</i> , 17(1), 41-48.		the evaluation and management of hospital performance.
[PG] Kessler, D. P., & Mylod, D. (2011). Does patient satisfaction affect patient loyalty? <i>International Journal of Health Care Quality Assurance</i> , 24(4), 266-273.	To examine the relationship between patient satisfaction and propensity to return.	<ul style="list-style-type: none"> ■ Patient satisfaction affects hospital choice. There is a significant link between patient satisfaction and loyalty. ■ Patient satisfaction has business implications for health care providers and may be useful as a management tool for private and public purchasers.
[*PG] Glickman, S. W., Boulding, W., Manary, M., Staelin, R., Roe, M. T., Wolosin, R. J., ... Schulman, K. A. (2010). Patient satisfaction and its relationship with clinical quality and inpatient mortality in acute myocardial infarction. <i>Circulation: Cardiovascular Quality and Outcomes</i> , 3(2), 188-195.	To determine whether patient satisfaction is associated with adherence to practice guidelines and outcomes of acute myocardial infarction and to identify the key drivers of patient satisfaction.	<ul style="list-style-type: none"> ■ Higher patient satisfaction is associated with lower inpatient mortality rates for acute myocardial infarction, even after controlling for hospital adherence to evidence-based practice guidelines, suggesting that patients are good discriminators of the type of care they receive. ■ Patients can differentiate between the technical (e.g., quality of nurses and physicians) and nontechnical aspects (e.g., room decor, quality of food) of medical care. ■ Patients' satisfaction with their care provides valuable incremental information on the quality of acute myocardial infarction care beyond clinical performance measures.
[*] Isaac, T., Zaslavsky, A. M., Cleary, P. D., & Landon, B. E. (2010). The relationship between patients' perception of care and measures of hospital quality and safety. <i>Health Services Research</i> , 45(4), 1024-1040.	To examine the relationship between patient experiences and technical measures of quality and safety using service-line specific data.	<ul style="list-style-type: none"> ■ Patient experiences of care are related to measures of technical quality of care, supporting their validity as summary measures of hospital quality. ■ Better patient experiences are associated with lower decubitus ulcer rates and other complications, including hospital acquired infections.
Fullam, F., Garman, A. N., Johnson, T. J., & Hedberg, E. C. (2009). The use of patient satisfaction surveys and alternative coding procedures to predict malpractice risk. <i>Medical Care</i> , 47(5), 553-559.	To identify methods for exposing potential malpractice litigation risks using Press Ganey measures.	<ul style="list-style-type: none"> ■ Satisfaction scores are significantly associated with malpractice activity. ■ As patients' minimum response drops by one category (e.g., from "very good" to "good," from "good" to "fair"), the risk of implication increases by 21.7%. ■ Survey measures provide a useful metric for identifying and prioritizing malpractice risks. However, hospitals need to exceed minimum HCAHPS samples sizes to provide an adequate number of surveys per physician for sufficient feedback.
[*] Zolnierek, K. B., & Dimatteo, M. R. (2009). Physician communication	To study the relationship between physician	<ul style="list-style-type: none"> ■ Physician communication is significantly positively correlated with patient adherence. ■ There is a 19% higher risk of non-adherence among

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<p>and patient adherence to treatment: A meta-analysis. <i>Medical Care</i>, 47(8), 826-834.</p>	<p>communication and patient adherence, and the effects of communication training on adherence to treatment regimens.</p>	<p>patients whose physician communicates poorly than among patients whose physician communicates well.</p> <ul style="list-style-type: none"> ■ Training physicians in communication skills results in substantial and significant improvements in patient adherence.
<p>[PG] Hall, M. F. (2008). Looking to improve financial results? Start by listening to patients. <i>Healthcare Financial Management</i>, 62(10), 76-80.</p>	<p>To review the value of measuring patient satisfaction in the context of quality improvement and public reporting.</p>	<ul style="list-style-type: none"> ■ Measuring and improving the patient experience leads to: <ul style="list-style-type: none"> – Reduced employee turnover – Enhanced reputation in the community – Increased patient loyalty – Reduced malpractice claims – Greater efficiency
<p>[*] Jha, A. K., Orav, E. J., Zheng, J., & Epstein, A. M. (2008). Patients' perception of hospital care in the United States. <i>New England Journal of Medicine</i>, 359(18), 1921-1931.</p>	<p>To assess the performance of hospitals across multiple domains of patient experiences.</p>	<ul style="list-style-type: none"> ■ There is a positive relationship between patients' experiences and the quality of clinical care. ■ Patients who received care in hospitals with a high ratio of nurses to patient-days reported better experiences than those who received care in hospitals with a lower ratio. ■ Care was consistently better in the hospitals that received high ratings across all conditions independently of other covariates measured. There is no need for tradeoffs between these two areas of performance.

For additional references, please see the [AHA Patient-Centeredness Bibliography](#).