

Patient satisfaction in musculoskeletal medicine

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Abstract

Purpose of review This is a literature review of the measurement of patient satisfaction in musculoskeletal medicine. Its purpose is to better understand the motivation for such measurements, the potential confounders, and the potential physician behaviors that may modulate such measures.

Recent findings There have been studies documenting that physician conveyance of empathy, the extent to which patients' expectations for pain control and timeliness of care are met, as well as patient demographics and health status all affect the current measures of patient satisfaction.

Summary In the mission to affect patient-centered care are met, musculoskeletal providers will be measured by their patients' satisfaction. There is much yet to be understood regarding patients' expectations of care; the science behind case-mix adjustment in this sphere is in its infancy, but there are some compelling reasons for musculoskeletal providers to attempt to optimize their patients' satisfaction.

Keywords Patient satisfaction · Orthopedic care · Patient-centered care · Outcomes

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Introduction

Patient satisfaction has become an increasingly measured metric in health care. The Institute of Medicine (IOM) in 2001 is credited with elucidating an aspirational goal for US medical practitioners in which our medical care would be “patient-centered” [1]. As The Centers for Medicare and Medicaid Services (CMS) and the Agency for Healthcare Research and Quality (AHRQ) demonstrated an active interest in this sphere beginning in 2002, measurement, reporting, and cultural shifts among health care providers began taking place in the form of the Hospital Consumer Assessment of Healthcare Providers and Systems (HCAHPS) survey [2]. In North America, patient satisfaction measurements—seen as a marker of “patient-centeredness”—appear to be a growing component of physician incentives, comparisons, and reimbursements. This review will define this sphere for musculoskeletal health care providers and review the literature on its potential impact on musculoskeletal care.

Why patient satisfaction?

Orthopedic surgeons have been measuring patient-reported outcomes and satisfaction with specific surgical procedures for many decades. Although the concept of measuring the patient experience is not new, the Patient Protection and Affordable Care Act (PPACA) and recent publications have brought significant attention to patient satisfaction as an aspect of quantifying value in healthcare [3]. There is concurrently a growing trend toward consumerism by patients in North America, and this has been well described [4]. There also appears to be some evidence that better patient care experiences are associated with improved compliance with recommended prevention and treatment strategies, as well as better

clinical outcomes [3]. All of these dynamics serve to focus our attention on improving patient satisfaction with our encounters.

However, the IOM notes that patient-centered care is only one element of quality care, with the others being safety, effectiveness, efficiency, and equity [1]. Unfortunately, studies linking patient satisfaction to other elements of quality care have not been so compelling. Lyu et al. could not show an association between patient satisfaction and hospital surgical quality compliance, nor with overall hospital employee safety culture in a study of 31 US hospitals [5]. In fact, there is mixed evidence that by measuring and focusing on patient satisfaction scores, some physicians may be motivated to fulfill patient desires at the expense of safety, effectiveness, or efficiency. In a large prospective cohort study of over 50,000 patients, higher patient satisfaction was associated with less emergency department use but with greater inpatient use, higher overall health care and prescription drug expenditures, and increased mortality [6]. These concerns with the untoward consequences of measuring and publishing patient satisfaction scores were outlined in a highly publicized magazine article, “Why rating your doctor is bad for your health,” in 2013 [7]. Physicians, hospitals, health systems, and payers will likely continue to study the proper measurement, weighting, and interpretation of patient satisfaction in overall assessments of quality of care.

How does patient satisfaction fit into musculoskeletal care?

The basic elements of Consumer Assessment of Healthcare Providers and Systems (CAHPS) would seem relatively straightforward [8]. A random sample of a provider’s patients are asked to grade the experience based on whether the patient feels that the provider was respectful, spent enough time with them, communicated well, and how responsive the facility support staff were. Patient satisfaction can then be thought of as an aspect of patient-reported outcomes, a data category that has seen steadily growing interest in the orthopedic community for years. However, it quickly becomes apparent that patient satisfaction can be more complex. For instance, a patient may have differing levels of satisfaction with the process of care as compared with the outcome of their care. [9].

In general, patient satisfaction is multifactorial and can be difficult for musculoskeletal care providers to understand. The elements of the patient’s experience that influence their perception of satisfaction are still being elucidated, but they seem to include socioeconomic issues at play before the encounter with the physician, e.g., presence or lack of family support, logistical challenges with

travel to the appointment, status of insurance coverage and/or employment, and the patient’s expectations for the coming visit [10]. In addition, there are other confounders in our current state of measurement. In an effort to characterize factors influencing outcomes and satisfaction, 4709 patients receiving lower extremity arthroplasties completed clinical outcomes (Oxford Hip or Knee, SF-12) and overall satisfaction surveys which were then analyzed. Overall satisfaction was predicted by preoperative expectations, achieving satisfactory pain relief and a satisfactory hospital experience. The Oxford scores had little influence. [11].

In one meta-analysis, 12% of variation in patient satisfaction scores was due to confounders in method of administration, age of patient, and question construct, not the actual patient’s level of satisfaction [12]. Three hundred eight patients in an orthopedic clinic had their patient-reported outcome instruments administered either electronically or via paper. They demonstrated higher satisfaction simply based on the electronic administration of the instruments [13].

In a large study of Medicare hip fracture patients, responses to patient satisfaction questionnaires were more predictable based on geographic regions of the USA than on patient health status or aggressiveness (or cost) of each patient’s care [14]. In fact, Press-Ganey composite data generally shows a lower percentage of satisfied patients in orthopedic surgery clinics compared with almost all other medical specialties, leading some to ask as follows: is orthopedics just different? [15] This is unlikely, but probably highlights the immature state of case-mix adjustment in our interpretation of patient satisfaction scores. It seems that there may be more to patient satisfaction than simply the functional outcome of orthopedic treatment or the objective interaction between physician and patient.

Wait time and perception of wait time have varying effects on the patient experience and subsequent satisfaction. Between June 2011 and October 2014, one orthopedic clinic collected standardized new patient forms and analyzed 3151 responses for satisfaction and likelihood to recommend practice. Obtaining “excellent” or “very good” satisfaction was strongly correlated to wait time in 15 min intervals, although “agree” or “strongly agree” with referring to the practice did not exhibit any relationship to the same interval [16]. In another study of 182 patients retrospectively analyzed in an outpatient orthopedic clinic, increased patient satisfaction was seen for older patients and also correlated with time spent with the surgeon. Satisfaction was not associated with wait time, and the authors note most patients could not accurately predict wait time over 15 min until they had waited longer than 60 min [17•].

Our understanding of the interplay between patient expectations for the management of chronic non-cancer pain and patient satisfaction score is also in its infancy [18]. Three

hundred thirty-two of 353 patients in an academic spine surgery clinic in one study were satisfied with their care. However, patients with pain scores of 6 or 7 or who did not feel the provider spent enough time with them were significantly more likely to be dissatisfied [19]. Patients who answered “yes definitely” to “provider spent enough time with you” reported a nearly 60% higher satisfaction score [19].

Expectations rely on patients’ assessment of their own disability and pain, and may also be affected by whether the surgeon recommends a surgical treatment. In a survey of 130 patients referred to a spine surgery clinic for initial evaluation, those with a high self-rated disability level and those whose surgeon recommended against surgery demonstrated lower patient satisfaction with the experience [20•].

Perhaps patient satisfaction will be better understood as we better define patients’ expectations. Mancuso et al. published work on a scale that measured patients’ expectations of lumbar spine surgery and found it to be valid and reliable. In that study of 420 lumbar spine surgery patients, they found wide variation in preoperative expectations. Those who were younger and those with higher Oswestry Disability Index (greater self-reported disability) demonstrated the highest expectations about their surgery [21•].

Improving patient satisfaction scores

For the provider who is not content with his or her own patient satisfaction scores, the obvious question is how to improve. There are some clues in the data to help answer this. Spending time with patients and conveying empathy seem to be extremely important for the patient experience. One study in an academic orthopedic hand surgery clinic reviewed 112 consecutive new patients’ satisfaction scores. They also completed the Consultation and Relational Empathy Measure along with other sociodemographic surveys and three Patient Reported Outcome Measurement Information System (PROMIS) based questionnaires. After controlling for confounding effects, patient-rated physician empathy correlated strongly with the degree of overall satisfaction, and alone accounted for 65% of the variation in satisfaction scores [22].

Cultural considerations may also factor in patients’ perceived satisfaction. Comparing 75 English-speaking and 75 Spanish-speaking patients in an outpatient hand surgery clinic, only 79% of Spanish-speaking patients were satisfied compared to 91% of English speakers. Spanish-speaking patients were significantly less satisfied with provider listening, spending enough time, and wait time [23]. Other studies have demonstrated improved patient satisfaction when healthcare providers have completed formal training in cultural competency [24].

It is becoming clear that the physician–patient interaction is not the sole determinant of reported patient

satisfaction. Some large-scale studies have emerged to help define important factors in the patient experience. A multicenter pediatric orthopedic study analyzed surveys from five practices in three states obtaining 6195 surveys from families. Variables found to be most predictive of recommending the physician’s office were “staff worked together,” “friendliness of provider,” and “cheerfulness of practice” [25]. In an inpatient study, 692 patients underwent primary total hip arthroplasty. A significant positive correlation was found between the patients’ perception of pain control and perception of their orthopedist, nurse, and hospital satisfaction, while length of stay had a significant negative correlation with overall satisfaction [26]. Another study of hip replacement patients demonstrated a strong correlation between patient satisfaction and a patient’s preoperative health status as well as their perceived length of stay with. In 810 patients in 43 hospitals, the weakest factor affecting patient-reported satisfaction was the treatment outcome [27].

Several factors under the physician’s control may also negatively impact the patient-reported satisfaction. In 2016, a multicenter study revealed that patients who were admitted through the emergency department (ED) had lower satisfaction than patients admitted through other pathways. Six thousand five hundred twenty-four patients admitted to participating level I trauma centers completed Press-Ganey surveys. Eighty-five percent of patients admitted through the ED were satisfied, compared with 89% of those who utilized other admission pathways. Logistic regression revealed an odds ratio of 0.67 ($p = 0.032$) predicting decreased satisfaction with physician performance based solely on admission through the ED [28].

Conclusions

Patient satisfaction has become a significant component of measuring the patient-centeredness of care as we strive to achieve greater value in health care. We believe it will be beneficial for the rating systems to evolve in a manner similar to those of other patient-reported outcome instruments. Validation of specific questions relevant for providers and encounter types, much like disease- and condition-specific outcomes, will likely improve the significance of these measures. Specialty specific satisfaction could be contextual, considering the variation in health care visit types. For example, knowing that patients do not accurately assess wait times and that they may be willing to wait for a highly trained subspecialist, it may be more relevant to ask if they felt wait time was excessive as opposed to asking if they saw a provider within 15 min.

Given the multiple variables that appear to affect patient satisfaction scoring, it would seem that physicians and

scientists will be required to actively engage the issues of cases-mix adjustment and advance our knowledge regarding confounders in our measurement and rating scales.

Understanding that patients' expectations play a role in their perception of satisfaction after an encounter, it will be important for us to develop the science to understand those expectations. It will be equally important that physicians and health systems learn how to communicate appropriate expectations to our patients.

Compliance with ethical standards

Conflict of interest Matthew J. Smith reports equity and an advisory board role with Universal Research Solutions, outside the submitted work.

Theodore J. Choma reports grants from Stryker Spine, outside of the submitted work. He is also a board member for AO Spine North America and Scoliosis Research Society.

Human and animal rights and informed consent This article does not contain any studies with human or animal subjects performed by any of the authors.

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