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## A Qualitative Study of Hospitalists' Perceptions of Patient Satisfaction Metrics on Pain Management

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### Abstract

Hospital initiatives to promote pain management may unintentionally contribute to excessive opioid prescribing. To better understand hospitalists' perceptions of satisfaction metrics on pain management, the authors conducted 25 interviews with hospitalists. Transcribed interviews were systematically analyzed to identify emergent themes. Hospitalists felt institutional pressure to earn high satisfaction scores for pain, which they perceived influenced practices toward opioid prescribing. They felt tying compensation to satisfaction scores commoditized pain. Hospitalists believed satisfaction would improve with increased time spent at the bedside. Focusing on methods to improve patient-physician communication, while maintaining efficiency in clinical practice, may promote both patient-centered pain management and satisfaction.

### Keywords

Hospitalist; opioid; patient satisfaction

### Introduction

Patient satisfaction with hospital-based care is an important quality indicator for hospitals. In 2008, the Centers for Medicare and Medicaid Services began publicly reporting Hospital Consumer Assessment of Healthcare Providers and Systems (HCAHPS) survey results

(Hospital Consumer Assessment of Healthcare Providers and Systems 2015). HCAHPS scores are among the measures the federal government uses to calculate incentive payments to acute-care hospitals (Centers for Medicare and Medicaid Services 2015) and hospitals must achieve high scores to maximize federal incentive payments.

Patient-perceived satisfaction with pain management in the hospital is among the core questions in the HCAHPS survey. Historically, patients reported an undertreatment of pain in the hospital (Desbiens et al. 1996; Whelan, Jin, and Meltzer 2004). While inadequately managed pain is associated with increased depression and anxiety among hospitalized patients (Rockett et al. 2013), physicians are expected to act more judiciously with opioid prescribing to reduce opioid-related complications (Kuehn 2012; Finch 2013). Initiatives to improve pain management, which draw on patient assessments and reports of satisfaction, may unintentionally contribute to excessive opioid prescribing (Zgierska, Miller, and Rabago 2012; Zgierska, Rabago, and Miller 2014; Kelly, Johnson, and Harbison 2016). Patients whose expectations for pain management are unmet during their hospitalization may report lower satisfaction scores despite receiving evidence-based care (Haugli, Strand, and Finset 2004). Pain management presents opportunities for disagreement between physicians and patients because success is based on subjective measures, including patient-reported symptoms and patient expectations. These expectations may be unrealistic in the face of a medical condition requiring inpatient care and may underestimate risks of opioid medications, of which clinicians are increasingly aware (Bjertnaes et al. 2012).

Hospital-based physicians, described as hospitalists, are physicians who work exclusively in the hospital and care for the majority of hospitalized patients (Wachter and Goldman 1996). Hospitalists are key players in the delivery of high-quality healthcare while ensuring a positive patient experience, both of which are tied to hospital incentive payments. The hospitalists' perceptions on satisfaction metrics for pain control have not been examined. Therefore, we aimed to explore the hospitalists' perspective on patient satisfaction metrics for pain control among hospitalized patients and to understand if these metrics have impacted their clinical practice.

## Methods

### Study Design, Setting, Population, and Recruitment

We conducted a qualitative study of 25 hospitalists using open-ended, in-depth interviews (Calcaterra et al. 2016). From January to August 2015, we recruited hospitalists practicing in one of five hospitals (two university, one safety net, one Veterans Affairs, and one private) located in Colorado or South Carolina. Hospitalists were sent an email inviting them to participate. Of the approximately 135 hospitalists emailed, 53 agreed to participate. We purposively sampled from those 53 hospitalists to achieve an even distribution with respect to gender and years in practice (Patton 1990; Hinami et al. 2012). We completed the interview process after 25 interviews once we had reached thematic saturation (Guest, Bunce, and Johnson 2006). Informed consent was obtained from study participants and each participant received a \$25 gift card. The study was approved by the Colorado Multiple Institutional Review Board.

## Instrument and Interview Procedures

The interview instrument was developed by the primary investigator (Susan L. Calcaterra), a hospitalist-researcher, with input from a medical anthropologist (Stephen Koester) and an addiction medicine physician-researcher. The instrument was informed by prior research and designed to elicit a narrative of hospitalists' views of patient factors (Manchikanti et al. 2006; Edlund et al. 2007; Fishbain et al. 2008), physician factors (Hutchinson et al. 2007; Jamison et al. 2014), and institutional factors (Fishman et al. 2004; Miller 2006; Drug Enforcement Administration 2014) associated with opioid prescribing during hospitalization and at hospital discharge. The interview guide was revised after input from the full research team, which included two hospitalists (Susan L. Calcaterra, Anne D. Drabkin) and two research assistants with experience in qualitative methods (Sarah E. Leslie, Reina Doyle). It was iteratively refined over the course of the interview process to explore new topics emerging from the interviews. Susan L. Calcaterra and Anne D. Drabkin conducted either face-to-face ( $n = 16$ ) or telephone ( $n = 9$ ) semistructured interviews with physicians outside of their clinical shift in a private space. Prior to starting the interviews, hospitalists completed a brief demographic survey. Interviews lasted approximately 1 hr and were digitally recorded, uploaded to a secure drive, and professionally transcribed.

## Analysis

Transcripts were entered into qualitative data analysis software (ATLAS.ti Scientific Software Development GmbH, Berlin, Germany). Using a mixed inductive and deductive (Fereday and Muir-Cochrane 2008) team-based approach, we examined patterns and themes related to practices around pain management, patient satisfaction and opioid prescribing (Bernard and Ryan 2009). A deductive or top-down approach was used to link text to predefined codes and categories based on literature, prior knowledge and our interview guide. An inductive or bottom-up approach was used to identify new codes and categories that emerged from the data, including unanticipated information relevant to our research questions.

Susan L. Calcaterra performed initial coding using an a priori template to categorize codes as patient, physician, and institutional factors. Using this template as a guide and adding new codes as they emerged, three other team members (Sarah E. Leslie, Anne D. Drabkin, and Reina Doyle) independently coded three transcripts to reach consensus on the codes to be used to analyze the remaining transcripts. Over the study period, team members met to modify the codebook to ensure consensus and to identify emergent themes. The most prevalent emergent themes representing hospitalists' perceptions of patient satisfaction metrics on pain management and their impact on clinical practice are reported here.

## Results

All hospitalists were board certified in internal medicine. Sixty-four percent were women, most were non-Hispanic White (84%) and the majority practiced in Colorado (64%). Most worked in an academic institution (72%) and had completed residency in the past 10 years (84%). Hospitalists described their patients as having limited education (35%) or a high school degree (45%). They reported that most of their patients were 50–75 years old (54%)

and half (50%) had a primary care provider (Table 1). Major identified themes included hospitalists' perceptions of institutional pressures to obtain high satisfaction scores; the feeling that pain management had been commodified, which left physicians feeling conflicted; the perception that increased time spent at the bedside generally resulted in improved patient satisfaction, but time was limited in a busy hospital practice; and that patient satisfaction metrics were incorrectly interpreted as quality healthcare delivery (Table 2).

### **Patient Satisfaction and Clinical Practice**

Patient satisfaction metrics presented challenges to hospitalists, who described a range of perspectives on the impact of these metrics on their clinical practice. Physicians' attitudes and self-described responses to patient satisfaction metrics varied. Some felt that institutional pressure to obtain high scores impacted their clinical practice, which they felt required them to alter their usual practice procedures to please their patients. Other physicians were less likely to change their practice unless they were directly instructed to by their employers. One physician recalled:

I think patient satisfaction affects my practice more than I realize. Satisfying patients is something doctors do, like giving patients antibiotics or tests when they want them or opioids when they want them. Instead of doing what is the right thing for the patient, we give them what they want.

Other physicians were less inclined to change their clinical practice, even for pain management, despite knowing that their institution would be monitoring their patient satisfaction scores. Many believed they were already addressing their patients' needs and did not need to modify their practice. One physician stated:

I'm well aware that I'm being watched for my patient satisfaction scores. So at least consciously it does not affect my position on opioids, which is not to say unconsciously it doesn't affect my decision. If my satisfaction scores ever are so low that it becomes a concern and someone brings it to me, then maybe I will address it. At this point I am just going to keep doing what I'm doing.

Some physicians described feeling overwhelmed by the numerous metrics already tracking their clinical practice, which diminished their ability to alter their practice in response to satisfaction scores above other metrics. One physician explained:

We are being measured by so many metrics and if you try to keep track of all of them, it would make you go insane ... So I kind of try to let patient satisfaction go, unless someone calls me on it.

### **Patient Satisfaction and Financial Incentives**

Physicians voiced concern that by tying financial incentives to patient-perceived pain management, both patients and physicians were becoming commodified. One physician described her experience:

In my community practice, we were incentivized to keep people happy. It was expected that we keep up those scores. There is always pressure and you certainly

don't want your patients to not be satisfied, but I think when you are given individual incentives based on that, I think it does sometimes change your procedures.

As physicians saw ways doctors were incentivized to improve patient satisfaction scores, they identified increased opioid prescribing as one manifestation. One physician reflects:

Do I think it affects opioid prescribing? Absolutely. If someone came to me and said, "Gosh, your satisfaction number is 70%, how are you going to fix that?" I'd have to have a discussion with that person to really hash out what I'm going to do to change. I don't doubt in the least that patient satisfaction scores are a driver of opioid prescribing. I would agree it is probably adverse.

Financially rewarding physicians to obtain high satisfaction scores left physicians feeling conflicted. Hospitalists believed they would not consciously change their practice behaviors, particularly if it were not in the patient's best interest or if were incongruous with evidence-based medicine, but the monetary and institutional incentives created challenges to their resolve. One doctor noted,

I think it is problematic. I guess the temptation is there. I mean I would like to think that we'd have integrity as a group. It is a temptation that I don't like. I mean personally, an incentive is not going to change doing the right thing. But I think it is a temptation that shouldn't necessarily be there. It is worrisome.

These pressures infuse the culture of hospitalist medicine. One physician described an exchange he witnessed that illustrated the pervasiveness of these pressures:

I've heard people joke about basically buying ... I should say exchanging patient satisfaction for tablets of opioids. I don't think anyone, hopefully, actually does that ... You can see how it is conceivable. I don't think anyone I know operates that way. I don't think that is fulfilling a professional duty.

These conversations and emerging jokes about these issues underscore how ubiquitous awareness of these metrics and the challenges physicians face in both providing high-quality, evidence-based care and satisfying patients.

### **Patient Satisfaction and the Patient-Physician Relationship**

Physicians acknowledged that patient satisfaction encompassed much more than prescribing pain medication for patient-reported pain. They believed that patient satisfaction was closely tied to the patient-physician relationship and time spent at the patient's bedside. This relationship, they perceived, could lead to a shared goal for treatment. One hospitalist explained,

I think the patient's satisfaction is mostly related to their relationship with the doctor rather than the pain. So if you actually take the time to talk to the patient and they understand and they agree with you, then of course, the patient satisfaction scores are not going to be low.

Although physicians expressed a desire to spend more time with patients, they also felt their clinical work load limited their ability to do so. When patients had pain and requested

opioids, hospitalists often prescribed them. They reasoned it was far more practical and efficient in a busy hospital setting to prescribe opioids, even if they would have preferred the more time-consuming process of discussing alternative methods for pain management with the patient.

Patient satisfaction is probably going to play an issue in how I deal with pain, especially if we are being reimbursed for it. But if you are in a hurry and have a ton of patients, then you tend to just give someone a medication that is going to help them immediately and not spend a lot of your time [discussing pain]. We don't have time to talk to patients for an hour and a half about their pain.

Another physician felt that educating patients about their pain would likely empower them to feel control over their care, and in turn improve satisfaction scores. However, she perceived a lack of institutional support for doing so:

Pain levels really determine how people feel they are being attended to. But not all pain is opioid responsive. I think we don't necessarily have a good way of addressing pain. I think we don't have a Pain Service or Pain Nurse in this hospital. We don't have people who are prepared to go and spend the time to discuss pain. People's perception of how much control they have over their discomfort will greatly influence their whole hospital stay and satisfaction.

### **Satisfaction: An Inoperable and Inappropriate Metric for a Subjective Outcome**

Hospitalists saw the use of patient satisfaction metrics as a surrogate for quality healthcare and appropriate pain management as misguided. They generally found the metric useless in providing provider-level feedback from which they could improve their clinical skills:

One aspect of the HCAHPS is that in many regards, it is somewhat unactionable. Because you get certain results and you have no idea what is behind it. So to me, it is like getting a grade on your expository writing paper, but then no comment. Well, why did you grade me down?

Others came to see hospital administrators' willingness to rely on this metric as evidence of their disconnect from clinical practice. Many felt that that they were being judged on a subjective metric, which was not at all reflective of appropriate or quality care. One hospitalist described his frustration:

Pain is a subjective score. It is not like we are improving morbidity or mortality by treating somebody's pain, in the majority of cases. If you think we don't have any narcotic seekers in our hospitals, think again. You want to base our pay and our hospital ratings on people who are probably seeking narcotics? And they are the people who are probably giving us bad patient satisfaction scores, I think that is very, very ignorant.

One physician described her disillusionment with the pressure to achieve high satisfaction scores because she felt the metric did not reflect the reality of her daily practice.

I think patient satisfaction is one of the things in medicine where it is so far removed from what is actually happening clinically at the bedside. I don't trust

administrators who worry on a daily basis about patient satisfaction. I don't think they understand what is going on and what we do in our job.

In these ways, reliance on the patient satisfaction metric does not yield useful information for clinicians and potentially erodes confidence that administrators and clinicians share a vision for what high-quality care entails.

## Discussion

In this qualitative study, we sought to understand hospitalists' perceptions of the impact of patient satisfaction metrics on pain management in their clinical practice. Hospitalists felt that satisfaction metrics for pain likely contributed to inappropriate opioid prescribing. They expressed concern that the linkage between patient satisfaction scores and compensation commodified pain management to the detriment of their peers and their patients. Physicians believed that satisfaction scores would improve with increased time spent at the bedside discussing pain management, but lacked time and institutional support to do so. Finally, hospitalists feared satisfaction metrics had erroneously become a surrogate for quality healthcare delivery. Rather, they believed satisfaction scores more closely measured patients' expectations for pain management, which they perceived to be often unrealistic. As a result, they perceived that institutional pressures to obtain high satisfaction scores influenced opioid prescribing.

Physicians described that their individual HCAHPS scores were monitored by their institution. Hospitalists understood that higher satisfaction scores for pain resulted in higher hospital payments through the Hospital Value Based Purchasing Program (Centers for Medicaid and Medicare Services 2015). In this way, hospitalist felt that high scores for patient perceived pain control functioned as a commodity to the hospital. The Centers for Medicare and Medicaid Services rewards hospitals with incentive payments for meeting performance standards on quality measures (Brooks 2016; Centers for Medicare and Medicaid Services 2015). Financial incentives made to physicians have shifted away from productivity and care quality metrics toward patient satisfaction and resource use (Chien et al. 2014). To achieve high satisfaction scores, hospitals increasingly financially incentivize physicians to obtain high satisfaction ratings. This is potentially to patients' detriment, since the benefits of financial incentives to physicians on improved quality of healthcare are inconclusive (Scott et al. 2011; Eijkenaar et al. 2013) but may be associated with unnecessary healthcare delivery (Zgierska, Rabago, and Miller 2014).

Hospitalists perceived institutional pressure to improve satisfaction scores for pain by prescribing more opioids. These findings are similar to a study of emergency room physicians who reported feeling pressured to prescribe opioids to avoid administrative complaints from patients or decreased satisfaction scores and reimbursement (Kelly, Johnson, and Harbison 2016). Another study found that about half of physicians reported ordering an inappropriate test or prescribing inappropriate antibiotics or opioids as a result of patient satisfaction scores (Zgierska, Rabago, and Miller 2014). These practices lead to increased costs (Studdert et al. 2005; Hermer and Brody 2010), the development of antibiotic resistance (Brown et al. 2003; Megraud et al. 2013), and an increased risk of

opioid-related adverse events (Dunn et al. 2010; Bohnert et al. 2011) to the detriment of patients' health and, as noted in these finding and other survey data, a degradation of physician morale (Zgierska, Rabago, and Miller 2014). Despite physicians' perceptions that patients expected opioids for pain management, evidence suggests that opioid receipt is not associated with higher satisfaction scores. A secondary analysis of patient satisfaction survey results from two academic emergency departments demonstrated that the mean overall patient satisfaction scores for patients receiving opioid analgesics were lower than the scores for those who did not receive opioids (Schwartz et al. 2014). Nonetheless, physicians are responding to broader pressures to meet metrics over which they perceive they have little control. In response to increased opioid overdose deaths and concern about physician perceived pressure to prescribe opioids to achieve high patient satisfaction scores, in July, 2016, the Centers for Medicare and Medicaid Services proposed removing the pain management dimension from the Hospital Value-Based Purchasing Program (Centers for Medicare and Medicaid Services 2017). This proposed change should relieve the pressures that physicians describe in this study. Further studies should address how to best manage patient perceived pain management in the hospital setting to ensure that patient's voices are heard and respected when treating acute and chronic pain.

Hospitalists recognized that high-quality physician patient interactions improved satisfaction scores for pain management, but they also felt that their daily workload—and associated institutional expectations for provider productivity—did not permit such intensive conversations. Currently, hospitalists are expected to be highly efficient (Wachter and Goldman 2002), reduce the length of hospital stays (Peterson 2009; White and Glazier 2011) and discharge patients before noon (Powell et al. 2012; Wertheimer et al. 2014; Shine 2015). Even as they believed spending time discussing pain with their patients would yield better outcomes, hospitalists did not feel supported by their institutions to do so. One solution might be broader use of patient navigators trained to spend quality time with patients, and answer questions about the expected course and duration of their pain. Studies examining the use of patient navigators on satisfaction with cancer-related care have shown higher reported patient satisfaction, reduced anxiety and improve health outcomes (Ferrante, Chen, and Kim 2008; Jean-Pierre et al. 2013; Loskutova et al. 2016). Similar interventions in hospital medicine may improve provider-physician communication about pain management, reduce excessive opioid prescribing, and benefit the hospital with improved satisfaction scores for pain management.

Hospitalists expressed concern that patient satisfaction metrics were interpreted as a surrogate measure of quality healthcare and that the metric was often unrelated to the patient's clinical outcome. Patient satisfaction is derived from consumer marketing and is a measure of how closely the patient's expectations of their care met their actual experience. Prior work has demonstrated that patient perceptions of healthcare do not correlate with evidence-based care (Chang et al. 2006). A national study demonstrated that higher patient satisfaction was associated with higher overall healthcare costs, prescription drug expenditures, increased mortality and greater inpatient use (Fenton et al. 2012). In contrast to patient satisfaction, which measures perceptions, patient-centered care provides "care that is respectful and responsive to individual patient preferences, needs, and values, and ensures that patient values guide all clinical decisions" (National Research Council 2001). This



model encourages physicians to avoid non-beneficial interventions and to follow evidence-based practice guidelines (Brett and McCullough 2012; Kupfer and Bond 2012). Hospitalists felt pressured to ensure patients had a positive patient experience to improve survey responses, which likely impacted their clinical practice. In turn, this may facilitate inappropriate medical practices by physicians (Zgierska, Rabago, and Miller 2014). Hospitals, patients and physicians may be better served by embracing metrics that encourage and reward the practice of patient-centered care.

The primary limitation of the study is its potentially limited generalizability, as all of the physicians worked in Colorado or South Carolina. We interviewed physicians working in variety of clinical settings, which included a broad patient population. Qualitative findings, however, are not meant to be generalizable, but instead to provide in depth cases that may be applicable to other situations. In this study, hospitalists' actual clinical practice and opioid prescribing behaviors were not measured, thus what hospitalists' described as their perceptions of satisfaction metrics on their daily practice may not reflect their clinical practice behaviors.

Patients should have an opportunity to voice their opinions about their perceived hospital care and pain management, and hospitals should promote opportunities for these conversations. In turn, patients should be educated about reasonable expectations for pain management in the hospital. Methods to improve communication and engagement between the physician and patient, and shifting patient care away from patient satisfaction to a more patient-centered-care approach, would likely be beneficial for patients' clinical outcomes (Derksen, Bensing, and Lagro-Janssen 2013; Nash 2015).

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**Table 1.**

## Demographics and descriptive characteristics.

<b>Participant characteristics (N = 25)</b>	
Female	16 (64)
Race/ethnicity	
White, non-Hispanic	21 (84)
Asian, non-Hispanic	4 (16)
State of practice	
Colorado	16 (64)
South Carolina	9 (36)
Private hospital	7 (28)
Academic institution	
Safety-net hospital	8 (32)
Veteran Affairs hospital	3 (12)
University hospital	7 (28)
Years postresidency	
< 5	9 (36)
5–10	12 (48)
> 10	4 (16)
<b>Hospitalist's description of the patient population they served</b>	
Education level of patient population	
Very highly educated (postgraduate degree)	5
Highly educated (college degree)	15
Educated (high school degree or GED)	45
Limited education (< high school degree)	35
Age range of patient population	
> 75 years old	17
50–75 years old	54
< 50 years old	29
Primary care follow-up post hospital discharge	
< 25%	0
25–50%	31
51–75%	50
76–100%	19

*Note.* Values are *n* (%) or average %.

**Table 2.**

## Emergent themes.

Patient satisfaction and clinical practice	<p>“HCAHPS scores don’t change the way I prescribe. Not just with narcotics, because I don’t give them narcotics. I discharge them one day earlier even when they wanted another day of respite in the hospital. But there are multiple factors where I’m doing what I think is in the patient’s best interest, but it might be something that they disagree with or don’t like. The scoring system is unfortunate. The idea of trying to get a certain HCAHPS score goes against my clinical judgment.”</p> <p>“We are supposed to ask people about their pain. But asking people about their pain often focuses them on their pain, especially when their pain is psychosomatic. It makes it all about medicine instead of patients. Because it is not like we are asking them about pain, and thinking, “Oh, we should sit them down and talk about this.” It is more like, “Oh, we should give you another dose of morphine.”</p>
Patient satisfaction and financial incentives	<p>“I think it happens more [opioid prescribing] when pay is related. I think an arm of pay is also referrals. I’ve worked in hospitals where there were multiple Hospitalist groups. So you could pick which Hospitalist Group you wanted to take care of you at any given hospital. Patients had more choice. Physicians are going to think about the patient satisfaction scores more, even if indirectly, because it is like a salaried job, where it’s job assurance. Then it changes patients from being patients to being clients.”</p> <p>“HCAHPS scores are probably going to play an issue in my practice, especially if we are being reimbursed for it. It might change the way people prescribe, but hopefully it would just open up the door for discussion between patients and physicians.”</p>
Patient satisfaction and the patient-physician relationship	<p>“The fact that our pay is tied to HCAHPS scores is not going to influence me. Pain control should not be part of the patient satisfaction metric. We work with a population that has poly-substance abuse. I’m not going to change my practice. Everyone wants our patients to be safe and I don’t think anyone is going to put their patients at risk just so they get a better satisfaction score. I don’t foresee anybody doing that, actually.”</p> <p>“I think patient satisfaction is very much related to the relationship you have with your doctor regardless of the medication you are prescribing or not prescribing ... It’s not like ... I can’t say I’ve never had negotiations with people about the amount of narcotics at the time of discharge. But I don’t think that negotiation and how much I give or don’t give with that negotiation, affects the patient’s satisfaction with it.”</p> <p>“I think if you sit down and lay out expectations, whether it is pain or other things, then people are okay with it. Most times, people are pretty rational. They might not be happy, but at least they understand. And then there are less questions and less fear. And there is less anger and they feel that they have been included in the conversation.”</p>
Satisfaction: an inoperable and inappropriate metric for a subjective outcome	<p>“I think that there are so many other things that go into the experience of pain. Pain is not a clean measure of patient satisfaction; it is fraught with problems.”</p> <p>“The patient that is asking for opioids beyond your comfort zone, their satisfaction is not directly tied — truly tied - to what you are going to give them. They may express that, but it’s not really tied to what you are going to give them. It is tied to something deeper and you are not going to help it by giving opioids.”</p>