

HHS Public Access

Am J Hosp Palliat Care. Author manuscript; available in PMC 2016 September 01.

Published in final edited form as:

Author manuscript

Am J Hosp Palliat Care. 2015 September; 32(6): 594–599. doi:10.1177/1049909114530491.

The Barriers to High-Quality Inpatient Pain Management: A Qualitative Study

Richard J. Lin, MD, PhD¹, M. Carrington Reid, MD, PhD¹, Lydia L. Liu, MA¹, Amy E. Chused, MD, MA¹, and Arthur T. Evans, MD, MPH¹

¹Department of Medicine, Weill Cornell Medical College, New York, NY, USA

Abstract

The current literature suggests deficiencies in the quality of acute pain management among general medical inpatients. The aim of this qualitative study is to identify potential barriers to high-quality acute pain management among general medical inpatients at an urban academic medical center during a 2-year period. Data are collected using retrospective chart reviews, survey questionnaires, and semistructured, open-ended interviews of 40 general medical inpatients who have experienced pain during their hospitalization. Our results confirm high prevalence and disabling impacts of pain and significant patient- and provider-related barriers to high-quality acute pain management. We also identify unique system-related barriers such as time delay and pain management culture. Efforts to improve the pain management experience of general medical inpatients will need to address all these barriers.

Keywords

general medical inpatients; pain management; acute pain; opioid; addiction; quality improvement

Introduction

Acute pain and acute-on-chronic pain are highly prevalent in hospitalized patients, especially among surgical patients and patients with cancer^{1–4}. Among general medical inpatients, more than 50% experience significant amounts of pain during their hospitalizations.^{5–7} However, even with the Joint Commission's implementation of pain as the fifth vital sign, pain is still vastly underassessed and undertreated.^{4–8} The negative consequences of poor inpatient pain management are substantial and include increased costs (mostly driven by increased length of stay) and decreased patient satisfaction and quality of life.⁹ Acute pain management in medical inpatients can be complex due to abundant preexisting painful comorbidities, such as arthritis, inflammatory diseases, or chronic neuropathic pain, and medical comorbidities that can complicate the use of specific analgesic medications.¹⁰ High-quality pain management is defined as having several

Declaration of Conflicting Interests

The authors declared no potential conflicts of interest with respect to the research, authorship, and/or publication of this article.

Reprints and permission: sagepub.com/journalsPermissions.nav

Corresponding Author: Richard J. Lin, MD, PhD, Department of Medicine, Weill Cornell Medical College, 525 East 68th Street, Box 130, New York, NY 10065, USA. ril9016@med.cornell.edu.

features including: appropriate ongoing assessment, interdisciplinary, collaborative care planning that embraces patient input, appropriate treatment that is efficacious, cost-conscious, safe, and culturally and developmentally appropriate, and ready access to specialty care as needed.^{11,12} Pertinent acute pain outcomes include change in pain severity and frequency; treatment of the disease process causing pain; decrease in emotional and physical dysfunction and adverse effects of pain treatment; and increase in patient satisfaction and quality of life.^{11,12} The revised American Pain Society Patient Outcome Questionnaire (APS-POQ-R) is a survey instrument for high-quality pain management that has been validated for hospitalized patients.¹²

Inadequately treated acute pain increases the risk of development of chronic pain, which in turn has significant long-term adverse effects on patients' overall function and quality of life.^{13,14} Many previous studies have aimed to identify barriers to delivering high-quality acute pain management.^{10,15,16} Deficiencies in pain assessment have been previously revealed; however, interventions designed to improve pain assessment have generally failed to improve hard clinical outcomes, for example, decreased pain scores.^{17,18} Patient-related barriers have also been identified including misperceptions of pain, concerns about opioids and side effects, and communication issues.^{10,15–17} Focused patient education has been shown to improve clinical outcomes, mostly through improvements in acute pain reporting and opioid prescription.^{15–18} A recent systemic review, however, has provided inadequate evidence to support the routine use of provider education, system-based pain assessment, algorithm or clinical pain outcomes.¹⁰ This suggests that as yet identified barriers may additionally hinder effective inpatient acute pain management or that interventions need to target multiple levels of potential barriers.¹⁹

In this retrospective and prospective study, we aim to identify risk factors for the undertreatment of acute pain and system-related, institution-specific, barriers to high-quality acute pain management through survey questionnaires and patient interviews.

Methods

Between July 1, 2009, and June 30, 2011, we conducted a retrospective and prospective study at our 850-bed tertiary academic medical center. The institutional review board approved all study protocols, survey instruments, and interview templates. Participants were eligible if they were at least 18 years of age, hospitalized on the general medical floor, experienced pain during their stay, and spoke English without the use of an interpreter. Patients were excluded if they stayed for less than 1 day, were documented opioid abusers by their attending physician, or were unable to communicate or complete a questionnaire. Chronic opioid use before admission was defined by the presence of a painful condition requiring daily prescription opioid treatment for at least 3 previous months. The investigators randomly selected participants based on reviews of daily medicine admission census and the electronic health record. After obtaining oral consent from their attending physicians, patients were approached with the study protocol. Investigators obtained written consent from each agreed individual and the selection and interview process continued until thematic saturation was reached.²⁰ In total, 40 patients agreed to participate in the study.

Demographic information, including age, gender, race, education level, cause of acute or acute-onchronic pain, and chronic opioid use before admission, was collected. Data related to pain management were extracted manually from the electronic health record, including daily assessment of pain, the severity of pain using 0-10 visual analog scale (pain score >6 as severe episode), and the responses to acute pain management. All patients agreed to an audiotaped interview either at their bedside or in the family lounge on the medical floor. The interview was semistructured and untimed and most lasted between 30 and 45 minutes. The interview template included open-ended questions to probe issues of acute pain management during the hospitalization. The first section focused on patients' perceptions of pain assessment, with special attention to the timing and the process as well as barriers to reporting pain. The second section involved perceived communication and education from providers (physicians, nurses, and pharmacists), including the nature of the acute pain, pain intervention, medications, and their side effects. The third section dealt with the management of acute pain, focusing on the process of actual delivery of pharmacologic and nonpharmacologic interventions. Finally, participants were asked to evaluate the process and the quality of acute pain management and were encouraged to freely express their opinions on best practice. Emerging themes from these interviews were further pursued and clarified. Two investigators (RJL and LLL) independently developed a preliminary framework by coding a subset of 5 interviews and, through a series of investigator meetings, arrived at consensus on the final coding framework. Thematic analysis was performed to identify common patterns and theories based on matrices of responses and constant comparisons, and throughout the iterative process, codes and themes were reviewed for agreement and disagreement and discussed for consensus. Both qualitative content analysis of textual data and quantitative frequency of thematic responses were recorded across the entire sample.²⁰ Quantitative associations of thematic responses with patient characteristics were performed using chi-square analysis in STATA10 (College Station, Texas).

Results

American Pain Society Patient Outcome Questionnaire Survey to Assess the Quality of Acute Pain Management

In order to identify barriers to high-quality pain management, we utilized a prospective cohort of general medical inpatients who experienced pain during their hospitalization. Their demographics are shown in Table 1. The mean age was 50.7 years, 55% were female, 60% were caucasians, and 18% were African Americans. The etiologies of pain were diverse, including musculoskeletal pain (25%), cancer (15%), and sickle cell disease (10%). All of them received opioid analgesia for acute pain while in the hospital. Of the 40 patients, 31 (78%) were opioid users before admission. Results of the APS-POQ-R questionnaire are shown in Table 2. Pain and severe pain were common, and a large percentage (60%) of time was spent in severe pain. The impact of pain on the daily physical functioning of these patients was significant (7–8 on an escalating 0–10 scale), while their psychosocial wellbeing was affected to a lesser degree (2–6 on an escalating 0–10 scale). The side effects of opioid treatment were acceptable (0–5 on an escalating 0–10 scale), with drowsiness being the major complaint. Overall, these patients rated success of pain management at a median of 8 on an escalating 0–10 scale, despite their participation in pain management at the

median of only 5 on an escalating 0-10 scale. The use of nonpharmacologic modalities was moderate (50%), and education and information exchange were suboptimal (50%, data not shown).

Qualitative Interviews to Identify Barriers to High-Quality Inpatient Pain Management

A semistructured interview was carried out using a template of probing questions based on known barriers to high-quality acute pain management. Dominant themes that emerged from these interviews fell into 3 categories: patient-related barriers, provider-related barriers, and system-related barriers (Table 3). The subthemes and frequency of occurrence within the 3 categories were summarized in Table 3 using sample statements. Perceived patient-related barriers included disabling impacts of pain, fear of opioids, psychosocial aspects of pain, and a general lack of control. About 40% of participants consistently described negative emotional, psychological, and functional impacts of the pain, and a sense of helplessness in predicting pain occurrence and effects of opioids. Some words they used to describe difficulty in controlling pain were "depressed," "no control," and "scared." On the other hand, most (90%) participants pointed out several provider-related barriers, which included concerns for opioid abuse/addiction, lack of communication and education, and lack of nonpharmacologic treatment modalities. Participants reported providers' lack of trust in their self-description of pain and its impact; lack of time and commitment to communicating the pain management process and medication side effects; and general underutilization of nonpharmacologic modalities. Finally, these qualitative interviews revealed several subthemes in the category of system-related barriers. Some (60%) of the participants described significant time delay, ranging from 30 minutes to several hours, in the delivery of pain medications as the major quality issue. These patients also reported significant dissatisfaction and mistrust because of the time delay. A small percentage of patients questioned the validity and consistency of the acute pain management protocol used in our hospital as well as a general lack of urgency to treat pain. Finally, an overwhelming majority (78%) of patients felt a wireless pain reporting system would be helpful in improving the acute pain management process.

Impact of Chronic Opioid Use on APS-POQ-R Survey and Interview Responses

Since our cohort had high prevalence of patients who used opioid chronically before admission and thus likely had chronic pain, we compared APS-POQ-R survey and interview responses in these 2 groups of patients. As shown in Table 4, there were 31 patients who used opioid before admission and 9 patients who did not. There was no statistically significant difference in the percentage of time in severe pain, pain relief, participation in pain management, and overall satisfaction of pain management between the 2 groups based on the results from the APS-POQ-R questionnaire. Most important, based on the frequency of subthemes, patients who are chronic opioid users before admission expressed similar concerns on the pain management process as patients who did not use opioid before admission during our qualitative interviews. The notable exception was a statistically higher prevalence of provider-related concerns for opioid abuse/addiction in the former group (Table 4, P = .03).

Discussion

High-quality inpatient pain management is one of the core competencies of hospital medicine.²¹ Despite extensive research and quality improvement efforts in the last few decades, many barriers to high-quality inpatient pain management still exist.^{15–19} Moreover, interventions aimed at reducing these barriers have not consistently improved clinically relevant, quantitative pain outcomes.^{10,22–25} In this study, we find that acute pain experience among hospitalized medical patients is highly variable and suboptimal. We also identify several categories of barriers to high-quality acute pain management. These include: delay in administration of pain interventions, perceived opioid misuse and abuse on the part of providers, and a general lack of communication and education in provider workflow. Our results are generally consistent with previous findings in medical inpatients.^{5–7,10}

Despite being validated in several patient populations, the APS-POQ-R questionnaire has not been used extensively as an inpatient quality improvement tool.^{11,12} We show here that this is a practical, easy-to-complete tool that can generate a rich set of information. To date, 6 core quality indicators have been recommended for measuring the processes and outcomes of pain management. These include: use of numeric or descriptive rating scales for pain assessment; documentation of pain intensity at frequent intervals; treatment of pain by a route other than intramuscular; administration of analgesics on a regular schedule and when possible use of a multimodal treatment regimen; prevention and control of pain to a degree that facilitates function and quality of life; and provision of adequate information so that patients are knowledgeable about pain management.^{11,12} Since direct measurements of these indicators might prove difficult, the APS-POQ-R questionnaire may be used as surrogate to gauge the quality of acute pain management and be integrated into the electronic health record.

Finally, our qualitative interviews provide rich sources of patient perceptions on the processes of acute pain management at our institution. The number 1 system-related barrier perceived by these patients is delay in pain interventions, despite adequate and frequent pain assessment. It is possible that the delay reflects an underestimation of the severity of pain by clinical providers, although more likely it is due to the mandatory safety requirements required to reduce medication errors as well as an institutional culture that does not appreciate an acute pain crisis as a medical emergency. In addition, general perceptions of opioid misuse, abuse, miscommunication, and the lack of education are apparent. Overcoming these barriers will require substantial efforts, including system-wide and comprehensive education targeted at all levels, to change the institutional culture and to improve workflow efficiency. The design of any intervention should thus aim to reduce overall pain scores at the system level, decrease pain-related medical errors, increase patient satisfaction, and reduce the length of stay. Interestingly, despite the high prevalence of chronic opioid use in this group of patients, we found no differences in the quality of their pain management as compared to patients without chronic opioid use, except that these patients are more likely subjected to provider-related concerns of opioid abuse and addiction. This finding suggests that opioid tolerance and high-dose requirement may generate substantial fear, uncertainty, and misconceptions among providers, especially in the current environment of heightened opioid stewardship.²⁶

Page 6

Our study has several limitations. First, this is a single-center study and thus, the results may not be applicable to other settings. Second, our cohort includes a high percentage of chronic opioid users and their perceptions may not apply to other medical inpatients. Third, we lack the capability to extract individual pain-related data from the electronic health record due to incomplete documentations. Nonetheless, our results are generally consistent with published observational data^{5–7,10} and expand the use of APS-POQ-R questionnaire as a quality improvement tool. Our qualitative interviews of a diverse population of patients with acute/ chronic and malignant/nonmalignant pain confirm a significant quality gap in the delivery of pain management and resultant significant adverse impacts on patients' physical and emotional well-being. Most important, perceived barriers identified from patients' perspective include provider misconception, significant time delays, validity and consistency of treatment protocols, and the lack of communication and education, and chronic opioid use only has a significant augmenting effect on provider misconception. These underappreciated barriers identified here may serve as the foundation for designing multifaceted quality improvement interventions to improve acute inpatient pain management.²⁷

Acknowledgments

We thank Michelle Unterbrink, Mary Elizabeth Kelser, and Samantha Parker for administrative assistance.

Funding

The authors disclosed receipt of the following financial support for the research, authorship, and/or publication of this article: This investigation was supported by grants from the National Institutes of Health (UL1RR024996), the Clinical and Translational Science Center at Weill Cornell Medical College (UL1TR000457), and the National Institute on Aging (5P30AG022845) through Translational Research Institute for Pain in Later Life (TRIPLL).

References

- Gianni W, Madaio RA, Di Cioccio L, et al. Prevalence of pain in elderly hospitalized patients. Arch Gerontol Geriatr. 2010; 51(3):273–276. [PubMed: 20031238]
- Melotti RM, Samolsky-Dekel BG, Ricchi E, et al. Pain prevalence and predictors among inpatients in a major Italian teaching hospital. A baseline survey towards a pain free hospital. Eur J Pain. 2005; 9(5):485–495. [PubMed: 16139177]
- Strohbuecker B, Mayer H, Evers GC, Sabatowski R. Pain prevalence in hospitalized patients in a German university teaching hospital. J Pain Symptom Manage. 2005; 29(5):498–506. [PubMed: 15904752]
- Cascinu S, Giordani P, Agostinelli R, et al. Pain and its treatment in hospitalized patients with metastatic cancer. Support Care Cancer. 2003; 11(9):587–592. [PubMed: 12905055]
- Marks RM, Sachar EJ. Undertreatment of medical inpatients with narcotic analgesics. Ann Intern Med. 1973; 78(2):173–181. [PubMed: 4683747]
- Whelan CT, Jin L, Meltzer D. Pain and satisfaction with pain control in hospitalized medical patients. Arch Intern Med. 2004; 164(2):175–180. [PubMed: 14744841]
- 7. Morris AC, Howie N. Pain in medical inpatients: an under-recognized problem? J R Coll Physicians Edinb. 2009; 39(4):292–295. [PubMed: 21152463]
- Cohen MZ, Easley MK, Ellis C, et al. Cancer pain management and the JCAHO's pain standards: an institutional challenge. J Pain Symptom Manage. 2003; 25(6):519–527. [PubMed: 12782432]
- 9. Fortner BV, Demarco G, Irving G, et al. Description and predictors of direct and indirect costs of pain reported by cancer patients. J Pain Symptom Manage. 2003; 25(1):9–18. [PubMed: 12565184]
- Helfand M, Freeman M. Assessment and management of acute pain in adult medical inpatients: a systemic review. Pain Med. 2009; 10(7):1183–1199. [PubMed: 19818030]

- Gordon DB, Dahl JL, Miaskowski C, et al. American pain society recommendations for improving the quality of acute and cancer pain management. Arch Intern Med. 2005; 165(14):1574–1580. [PubMed: 16043674]
- Gordon DB, Polomano RC, Pellino TA, et al. Revised American pain society patient outcome questionnaire (APS-POQ-R) for quality improvement of pain management in hospitalized adults: preliminary psychometric evaluation. J Pain. 2010; 11(11):1172–1186. [PubMed: 20400379]
- Kehlet H, Jensen TS, Woolf CJ. Persistent postsurgical pain: risk factors and prevention. Lancet. 2006; 367(9522):1618–1625. [PubMed: 16698416]
- Blyth FM, March LM, Cousins MJ. Chronic pain-related disability and use of analgesia and health services in a Sydney community. Med J Aust. 2003; 179(2):84–87. [PubMed: 12864718]
- Goldberg GR, Morrison RS. Pain management in hospitalized cancer patients: a systemic review. J Clin Oncology. 2007; 25(13):1792–1801.
- Oldenmenger WH, Sillevis Smitt PA, van Dooren S, Stoter G, van der Rijt CC. A systemic review on barriers hindering adequate cancer pain management and interventions to reduce them: a critical appraisal. Eur J Cancer. 2009; 45(8):1370–1380. [PubMed: 19201599]
- 17. Morrison RS, Meier DE, Fischberg D, et al. Improving the management of pain in hospitalized adults. Arch Intern Med. 2006; 166(9):1033–1039. [PubMed: 16682579]
- Mularski RA, White-Chu F, Overbay D, Miller L, Asch SM, Ganzini L. Measuring pain as the 5th vital sign does not improve quality of pain management. J Gen Intern Med. 2006; 21(6):607–612. [PubMed: 16808744]
- McNeill JA, Sherwood GD, Starck PL. The hidden error of mismanaged pain: a systems approach. J Pain Symptom Manage. 2004; 28(1):47–58. [PubMed: 15223084]
- 20. Glaser, B.; Strauss, AL. The Discovery of Grounded Theory: Strategies for Qualitative Research. Chicago, IL: Aldine; 1967.
- 21. Society of Hospital Medicine Core Competencies. Clinical conditions: pain management. J Hosp Med. 2006; 1(S1):28–29.
- Titler MG, Herr K, Brooks JM, et al. Translating research into practice intervention improves management of acute pain in older hip fracture patient. Health Serv Res. 2009; 44(1):264–287. [PubMed: 19146568]
- Brooks JM, Titler MG, Ardery G, Herr K. Effects of evidence-based acute pain management practices on inpatient costs. Health Serv Res. 2009; 44(1):245–263. [PubMed: 19146567]
- 24. Okon TR, Lutz PS, Liang H. Improved pain resolution in hospitalized patients through targeting of pain mismanagement as medical error. J Pain Symptom Manage. 2009; 37(6):1039–1049. [PubMed: 19278818]
- 25. Vila H Jr, Smith RA, Augustyniak MJ, et al. The efficacy and safety of pain management before and after implementation of hospital-wide pain management standards: is patient safety compromised by treatment based solely on numerical pain ratings? Anesth Analg. 2005; 101(2): 474–480. [PubMed: 16037164]
- Coffin P, Banta-Green C. The dueling obligations of opioid stewardship. Ann Intern Med. 2014; 160(3):207–208. [PubMed: 24322334]
- 27. Relieving Pain in America: A Blueprint for Transforming Prevention, Care, Education, and Research. Washington, DC: National Academies Press; 2011. IOM Committee on Advancing Pain Research, Care, and Education Board on Health Sciences Policy. ISBN 978-0-309-25627-8.

Characteristics of the Interviewed Cohort of Patients.

Patient demographics	Total (N = 40)
Mean age, years (SD)	50.7 (18.3)
Female (%)	22/40 (55%)
Percentage of caucasians (%)	24/40 (60%)
Education level college and above (%)	26/40 (65%)
Percentage of ADL independence (%)	26/40 (65%)
Causes of pain (%)	
Cancer/chemotherapy	6/40 (15%)
Sickle cell disease	4/40 (10%)
Musculoskeletal/rheumatologic	10/40 (25%)
Others	14/40 (35%)
Unknown	6/40 (15%)
Opioid use before admission (%)	31/40 (78%)

Abbreviations: ADL, activity of daily living; SD, standard deviation.

Survey Results Using the APS-POQ-R Questionnaire.

APS-POQ-R items (range 0–10)	Median	IQR
Worst pain during last 24 hours	10	9–10
Least pain during last 24 hours	4	1.3-5.8
Estimate of percentage of time in severe pain in last 24 hours	60	43–78
Percentage of pain relief in the last 24 hours	70	50-80
How satisfied are you with the results of your pain treatment? (0 = extremely unsatisfied, 10 = completely satisfied)	8	5–9
How much were you allowed to participate in decisions about your pain treatment? (0 = not at all, 10 = very much so)	5	3–7
Pain interfered or prevented you from activities in bed	8	6–9
Pain interfered or prevented you from activities out of bed	8	6–9
Pain interfered or prevented you from falling asleep	7.5	6–9.8
Pain interfered or prevented you from staying asleep	7	4–9
How much the pain caused you to feel anxious	5	0.3-8.8
How much the pain caused you to feel depressed	6	3–8
How much the pain caused you to feel frightened	2	0–7.8
How much the pain caused you to feel helpless	5	1–9
Severity of nausea	0	0–8
Severity of drowsiness	5	2.3-8
Severity of itching	0	0-4.8
Severity of dizziness	0	0–5

Abbreviations: APS-POQ-R, revised American Pain Society Patient Outcome Questionnaire; IQR, interquartile range.

Patient Perceptions of Barriers to High-Quality Inpatient Pain Management.

Categories, subthemes, incidence, %	Quotations		
Patient-related barriers			
Disabling impacts of pain/fear of pain and narcotics/lack of control (11/40, 28%)	"I wish to stop that medicine. I wish I could stop taking all these pills, the controlled substances, my medication, I wish I could stop it. I've tried. There were a couple of times where I had the Dilaudid and Fentanyl patches and I just didn't feel like taking it, and forget it, my joints were killing me. I tried, you know. This lupus is no joke, no joke at all."		
	"All I wanted to do was sleep, but I never did, all I could do was lay there. I wished for sleep. I have a sleep problem too. And I have stress problems, I have personal problems. It's easy to deal with personal problems when you're not in pain, trust me."		
Psychosocial etiologies and their impact on pain (4/40, 10%)	"Because I'm in extensive pain and as you can see, unfortunately for me, I'm totally helpless. I can't walk. I can't do anything. I'm totally helpless. I can't blow my nose properly. I'm a mess."		
Provider-related barriers			
Provider concerns for opioid abuse/addiction (17/40, 43%)	"If I'm constantly saying that I'm having pain, it becomes an issue where they start the dosing very low and it basically makes my pain stay longer than it has to because the doctors are concerned that if I'm constantly reporting pain whether I'm taking it because I need it or abusing it for the high."		
	"I've had experiences where people turn a pain situation into a moral situation, even my parents included. It's strange, I would never take drugs for this, I never took a pill in my life, and they make it into a moral issue, but that's just barbaric, but then there is all sorts of increments of that."		
Lack of communication and education about pain management and its side effects (14/40, 35%)	"I think there were too many people involved. I think that more often than not, out of the entire scope of the treatment, I was left confused because suddenly I was getting a lot of different drugs for a lot of different areas, and I didn't understand why I was getting so many different drugs."		
	"No, it seems like every doctor has their own way of doing things. Some are more progressive in their way of treating pain, and others tend to try more things before they go to heavy duty pain medications before others do, I guess it depends a lot on the level of pain you're having and whether you're getting any relief or not."		
Lack of adequate nonpharmacologic treatment options (4/40, 10%)	"Because I wasn't seen by PT. Today is Monday, I came in Friday morning, so I was here Friday, Saturday, Sunday, and now today I finally saw PT, so that's not really ideal."		
System-related barriers			
Delay in delivery of pain interventions (24/40, 60%)	"Depends on what the need is. Usually it may take an hour. Because you know, they all have other patients, so it's a little slow. But they don't ignore it; it's just a little slow."		
	"Like right now, I waited about 1.5-2 hours."		
	"I was shaking in pain, and they told me they were going to write for the IV of Dilaudid, and I told the nurse, and the order was not written for 2 hours. So I was shaking in pain, crying in pain, and that's one of my fears. the fact that it's not being taken seriously."		
Validity and consistency in pain management protocols (6/40, 15%)	"It seems like every doctor has their own way of doing things. Some are more progressive in their way of treating pain, and others tend to try more things before they go to heavy duty pain medications before others do."		
A wireless pain reporting system, ie, pain telemetry (31/40, 78%)	"Of course, without a doubt. Are they going to listen to it? That's a different story."		
	"That would be beautiful. I would love to participate in that. Really."		
	"They don't respond some of them do. But the ones that don't respond, it wouldn't matter anyways. You could be dead, and they would not respond. So I don't know if that system would work any better or be more efficient. It's in the human being that gets the transmission. They sit on their [behind] or they don't. And it's as simple as that. That's what I think."		

The Impact of Chronic Opioid Use on Survey and Interview Responses.

	Chronic opioid user (N = 31)	Nonchronic opioid user (N = 9)	P value
Disabling impact	8/31	3/9	.656
Provider concerns/addiction	16/31	1/9	.030
Communication issue	11/31	3/9	.905
Time delay	19/31	5/9	.757
% In severe pain, median	60	60	.217
% Pain relief, median	70	70	.804
Participation, median	5	5	.893
Satisfaction, median	8	7	.211

Author Manuscript