

A Multidisciplinary Approach to Improve Pain Management and Satisfaction in a Trauma Population

Adel Elkbuli, MD, MPH ■ Madonna Stotsenburg, MBA, BSHSA, BSN, RN, TCRN ■
 Caroline Epstein, BS ■ Kathy Calvert, MEd, EdS, CPXP ■ Dessy Boneva, MD, FACS ■
 Mark McKenney, MD, MBA, FACS ■ Keri Deaton, MBA, BSN, RN, TCRN

ABSTRACT

An adult trauma center identified pain management as a potential area for improvement. Pain management is at the height of discussion in medical centers across the United States. The Hospital Consumer Assessment of Healthcare Provider and System (HCAHPS) scores relating to pain management were consistently low (<5th percentile). This project was designed to use a collaborative and systematic approach to pain management to improve HCAHPS pain management scores. This is an evaluation of a quality improvement project using a before-and-after design with historical control. Using HCAHPS data to evaluate patients' pain management perceptions, an integrative three-pronged approach was developed and implemented: (1) development of a trauma nurse leadership program, (2) collaboration with pain management providers, and (3) modifications made to the trauma admission order set. Trauma nurse leaders educated patients and families regarding pain management goals and expectations utilizing a standardized

script. HCAHPS survey data obtained before and after the intervention showed a significant improvement in patient satisfaction. HCAHPS scores on the three pain questions prior to intervention in Quarters 2 and 3 (Q2–3) 2017 had a mean of less than the 5th percentile. After intervention, HCAHPS scores on the three pain questions improved to a mean of more than the 60th percentile on Q4 2018. Implementation of a pain management strategy involving a three-pronged approach of a dedicated trauma nurse leadership program, collaboration with a pain management team, and evaluation and modification of a trauma admission order set was associated with an improvement in communication about pain with the trauma patients and HCAHPS pain satisfaction scores.

Key Words

Hospital Consumer Assessment of Healthcare Provider and System (HCAHPS), Pain management, Patient education, Patient satisfaction, Physician–nurse collaboration

In recent years, there has been increasing attention given to the excessive reliance upon opioid analgesics in reducing posttraumatic and postoperative pain. Narcotic abuse and addiction have become more apparent in the setting of prescription-based opioid use. Appropriate pain control and clear pain level expectations can

Author Affiliations: Department of Trauma, Orange Park Medical Center, Florida (Ms Stotsenburg and Mss Calvert and Deaton); Department of Surgery, Kendall Regional Medical Center, Miami, Florida (Drs Elkbuli, Boneva, and McKenney and Ms Epstein and Ms Stotsenburg); and University of South Florida, Tampa (Drs Boneva and McKenney).

The abstract leading to this article was presented at the Trauma Quality Improvement Program (TQIP) 2018 Annual Meeting in Anaheim, California, on November 17, 2018.

The authors declare no conflicts of interest.

Supplemental digital content is available for this article. Direct URL citations appear in the printed text and are provided in the HTML and PDF versions of this article on the journal's Web site (WWW.JOURNALOFTRAUMANURSING.COM).

Correspondence: Adel Elkbuli, MD, MPH, Department of Surgery, Kendall Regional Medical Center, 11750 40th St, Miami, FL 33175 (Adel.Elkbuli@hcahealthcare.com)

DOI: 10.1097/JTN.0000000000000493

help improve patient satisfaction, which in turn improves patient outcomes and returns within the expanding pay-for-performance model (Glowacki, 2015).

There is an increasing need to quantitatively improve quality in health care delivery. The Centers for Medicare & Medicaid Services (CMS), hospitals, and insurance providers alike are striving to better define and measure quality of health care. A major component of quality is patient satisfaction. The Hospital Consumer Assessment of Healthcare Provider and System (HCAHPS) is a patient survey that is now required by the CMS, as it “provides a standardized survey instrument and data collection methodology for measuring patients' perspectives on hospital care” (Health Services Advisory Group, n.d.).

DeVore et al. conducted a study at a Level 1 trauma center in western Pennsylvania and showed an increase in average HCAHPS scores from the 56th percentile to the 62nd after implementation of a pain management educational program (DeVore, Clontz, Ren, Cairns, & Beach, 2017). Schwartz et al. conducted a data analysis of two emergency departments (EDs) measuring the effect of

analgesic or opioid analgesic administration on patient satisfaction scores (Schwartz, Tai, Babu, & Merchant, 2014). This study found no association, suggesting a mere pharmacologic approach to pain management is not sufficient for improved patient satisfaction. Archer et al. found that educational programs that incorporate pain-coping skills and self-management techniques improved measured outcomes in pain perception (Archer, Castillo, Wegener, Abraham, & Obremskey, 2012). There is emerging evidence in the medical literature indicating that an integrated, multidisciplinary, and patient-vested approach to pain control has the best chances of success for both increasing patient satisfaction and decreasing the medical component of opioid overuse (Brady, McCauley, & Back, 2015).

A study performed by Hanna et al. included 4,349 surgical patients and showed that patient satisfaction based on HCAHPS data was over two times greater when they believed their staff performance to be appropriate rather than if their pain was simply controlled (Hanna, González-Fernández, Barrett, Williams, & Pronovost, 2012). In a study of 4,479 ED patients receiving analgesic medications, factors other than the use of opioid analgesic medications appeared to have a greater influence on patient satisfaction (Schwartz et al., 2014). Kahn et al.'s review of 182 postsurgical and posttrauma patient surveys found that patient satisfaction was more dependent on "patient perceptions of interactions with health team members" than on pain control (Kahn, Iannuzzi, Stassen, Bankey, & Gestring, 2015). Similarly, DeVore et al. reviewed HCAHPS survey results and found that patient satisfaction was significantly improved following the implementation of an evidence-based nursing education program and pain management algorithm (DeVore et al., 2017).

To determine the effectiveness of the pain management strategy, the HCAHPS scores were used to assess patient satisfaction, perception of pain, and pain management. Initially, patient satisfaction of pain management was low with a mean score of less than the 5th percentile. A collaborative approach to improving pain management in trauma patients was implemented utilizing a three-pronged approach: (1) development of a dedicated trauma nurse leadership program, (2) collaboration with pain management providers, and (3) modification of trauma admission order set. The results of the HCAHPS survey data were then compared before and after the implementation of the pain management program to measure improvement in scores related to pain.

The primary goal of this multidisciplinary quality improvement project was to use a collaborative and systematic approach to pain management to improve HCAHPS pain management scores. To reach this end, the following process was utilized:

- *Building* a comprehensive pain management regimen for trauma patients that serves to minimize both the acute pain of trauma and the side effects caused by its treatment
- *Optimizing* the approach to pain management during hospitalization in order to facilitate a smooth transition at time of discharge
- *Educating* the staff and patients about realistic expectations of pharmacologic and nonpharmacologic pain relief and to get them vested in nonopioid, multimodal pain management therapeutic alternatives when appropriate

The hypothesis is that the use of a multidisciplinary collaborative approach and systematic pain management program will increase patient satisfaction as measured by HCAHPS scores related to pain. Additionally, the use of oral versus intravenous (IV) opioid medications was analyzed. This allowed an opportunity to evaluate whether there was a reduction in IV opioid use in patients.

METHODS

This is an evaluation of a quality improvement project using a before-and-after design with historical control. This research was conducted in compliance with ethical standards and received institutional review board approval through the Western Institutional Review Board. HCAHPS survey data are categorized by hospital provider rather than type of patients. All adult trauma patients were candidates for the HCAHPS satisfaction survey. The inclusion criterion for this study was all trauma patients at a Level 2 adult trauma center who were 18 years and older with blunt and penetrating trauma according to the hospital-wide HCAHPS data categorized by patient's provider. To isolate trauma patient pain scores within HCAHPS data, performance improvement staff and the Trauma Program Director then manually reviewed ICD-10 codes to exclude general surgery admissions from the desired trauma admissions.

Trauma Nurse Leadership Program

The hospital identified the need for a dedicated team of registered nurses with advanced trauma training to be trauma nurse leaders (TNLs) and implemented a trauma nurse leadership program. Prerequisite requirements for the TNL role included bachelor's prepared (or currently enrolled) registered nurses with a minimum of 2 years' clinical background as either ED or intensive care unit (ICU) nurses. Once the eight nurses were selected to become TNLs, they went through an extensive orientation process in both the ED and trauma ICU, lasting 10–12 weeks. This included formal teaching on therapeutic patient interactions, known as nurse leader rounding at the facility. This facilitated TNLs in serving as mentors, leaders, and advocates

for trauma patients as well as gave them knowledge and “hands-on” classroom practice time for scripting, difficult interactions, and service recovery strategies. Any new TNL brought into the role undergoes the same extensive orientation as the original TNLs (Figure 1).

The staffing model for the TNL program allowed for two TNLs per shift, 24 hr a day, 7 days a week. TNLs performed initial pain evaluations on admitted trauma patients. They engaged in patient and family education of pain management goals and the development of realistic expectations in relation to posttraumatic events. This model was implemented to promote consistency and collaboration among providers. TNLs developed an introductory script, with the primary tenet being development of realistic pain management goals between the patient and health care team. Full script verbiage is provided in Supplemental Material 1 (available at: <http://links.lww.com/JTN/A7>). Members of the multidisciplinary team including rehabilitation and respiratory therapists, case managers, and trauma providers implemented the scripting technique as well to ensure that the unified message was consistently presented to the trauma patient and family. Training of the multidisciplinary team was performed by the trauma program director and the TNL

charge nurse to ensure consistency. Additional responsibilities of TNLs related to pain management included education and promotion of adjunct therapy. Nonopioids were used as adjuvants to opioid therapies, as well as “coupling” of oral acetaminophen and nonsteroidal anti-inflammatory drugs (NSAIDs) when clinically appropriate. TNLs spoke with the patients one-on-one during their daily rounds regarding pain management goals. When appropriate, these initiatives started in the trauma resuscitation bay with both the patient and their families, so that communication of expectations was identified early in the treatment process.

Collaboration With Pain Management

The second feature involved developing a collaboration with the pain management providers. As subject matter experts, they functioned as both consultants in the planning phase of the project and providers available for patient consults when warranted. They were integral in the success of the project. Discussions were held with the pain management team, pharmacy, supply chain, and nursing to remove any barriers to treatment modality utilization prior to implementation. The pain management team presented at Trauma Grand Rounds to

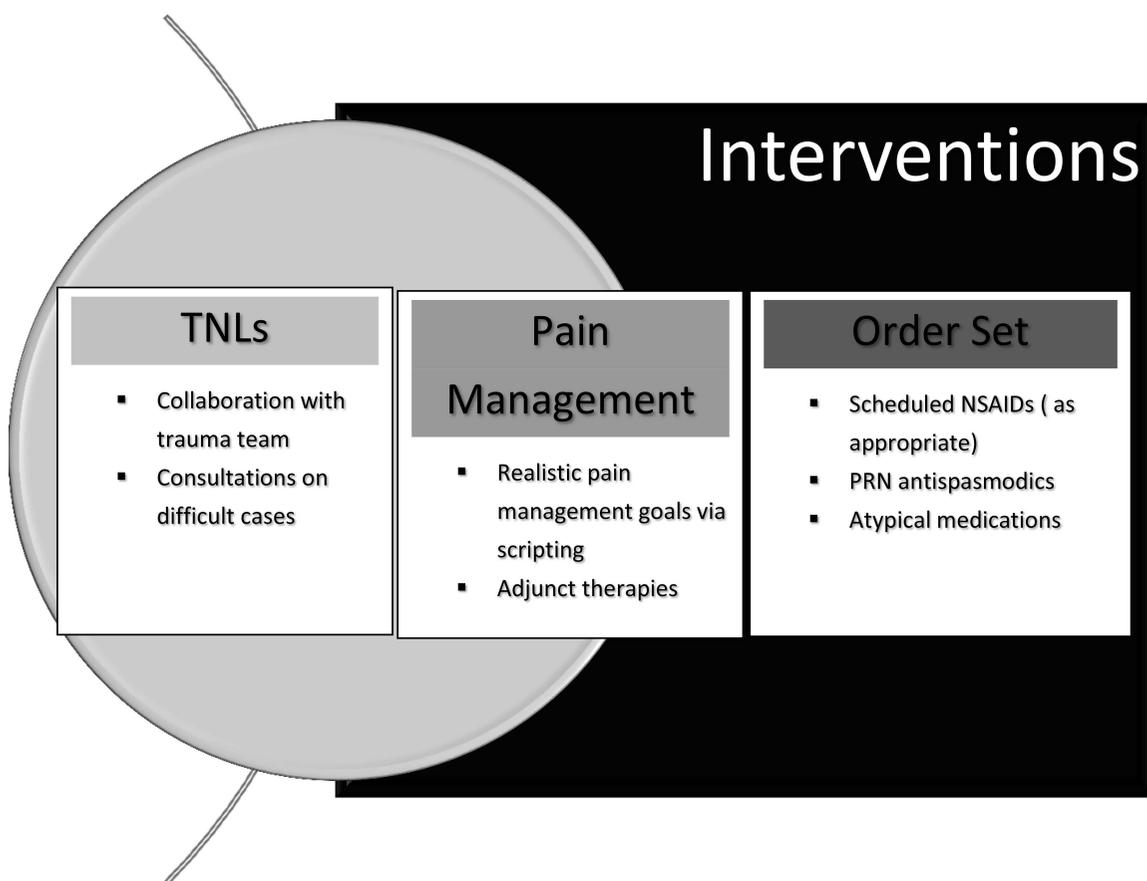


Figure 1. Key components of the three major sections of study interventions.

educate hospital leadership and trauma liaisons on the latest information and treatment options for pain management. The goal was to ensure communication occurred between all members of the multidisciplinary team and that the communication to the patient and family was accurate and consistent (Figure 1).

Trauma Admission Order Set

The third aspect of the pain management plan was a comprehensive evaluation and modification of the trauma admission order set. In conjunction with the pain management team, modifications were made to allow for easier ordering options to be used in the appropriate patient population including scheduled NSAIDs, as well as as-needed antispasmodics. For patients presenting with chronic use of opioid pain medications prior to injury, atypical pain medications such as selective serotonin reuptake inhibitors, tricyclics, and gabapentinoids were also included. These medications were added to the trauma admission order set for individualized treatment guidance rather than a generalized management approach. For atypical pain such as neuropathic pain or radiculopathies, the addition of neuropathic agents was utilized, in conjunction with the pain medicine providers (Figure 1).

Survey Methods

Patients completed the HCAHPS surveys within 6 weeks following discharge via four modalities. They included mail only, telephone only, mixed (with telephone follow-up), or active interactive voice response. Baseline HCAHPS data were obtained for Quarters 2 and 3 in 2017. Following the initiation of the pain management process in Quarter 4 of 2017 (day one 9/1/2017), the data were reassessed for Quarter 4 of 2017 and again for Quarters 1–4 of 2018. Details on questions to assess effectiveness of pain management (2017 through Q1 2018) are provided in Supplemental Material 2 (available at: <http://links.lww.com/JTN/A8>).

The changes in the questions occurred after the CMS announced that the pain control questions would be removed from the scoring formula used in the Hospital Value Based purchasing program (Industry Edge, 2017; Thompson, 2017). The CMS believed that more focus on efforts to improve communications with patients about their pain were needed, rather than focusing on medications prescribed during the patient visit.

RESULTS

Baseline HCAHPS data collected for Quarters 2–3 in 2017 regarding the three pain-related questions prior to implementation of the pain management performance improvement process were at the 1st percentile ranking.

The new pain management performance improvement process was implemented in the trauma center on September 1, 2017. Figure 2 shows pre- and postintervention implementation percentiles by quarter and by HCAHPS question. Additionally, pre- and postintervention implementation percentiles by quarter and by HCAHPS question were provided in Supplemental Material 3 (available at: <http://links.lww.com/JTN/A9>).

The HCAHPS scores improved for all questions from below the 5th percentile prior to program implementation to the 30th- to 93rd percentiles after program implementation. This is further delineated by the drastic change from Q3 2017 when all pain HCAHPS questions ranked in the 1st percentile, to Q4 2017, the year of implementation, when the same questions ranked the 58th, 69th, and 75th percentiles (Table 1).

Although the questions changed in Quarter 1 of 2018, the project still remained above the 1st percentile in rankings. It is also important to note that the number of patients admitted, mean age, mean Injury Severity Scores for patients admitted to the ICU remained consistent throughout all quarters of this study (Table 2).

Additionally, it was found from the implementation of this project that the oral opioid dosages for all patients increased, whereas the IV opioid dosages decreased throughout the study period (Q1 2017–Q4 2018), an outcome likely related to the implementation of the pain management project based on the patient's realistic pain management goals. Opioid oral dosages/total opioid dosages increased by 28.3%, whereas opioid IV dosages/total opioid dosages decreased by 47.9% (Q1 2017–Q4 2018) (Figure 3).

DISCUSSION

The purpose of this study was to determine whether the implementation of a three-pronged program improved HCAHPS scores on questions related to pain management. This study showed that the implementation of scripting and this pain management strategy significantly improved the pain management satisfaction of trauma patients in a Level 2 trauma center as determined by increased HCAHPS survey scores. These measures enhanced patient–provider communication and adjusted the patients' pain level expectations during their hospital stay as well as upon discharge. Assessment of the implementation of the program showed that it did not add a significant increase in the time requirements for the nursing care of this patient cohort because it was incorporated into the daily rounding expectations of the TNL role.

Satisfaction levels for Quarters 1 and 2 of 2018 were lower than Quarter 4 of 2017. However, the HCAHPS survey questions changed for 2018, so it is unclear whether this decrease was due to a true decrease in patient satisfaction or whether this reflected a change in the questions (Industry Edge, 2017; Thompson, 2017).

Trauma Patients HCAHPS Data

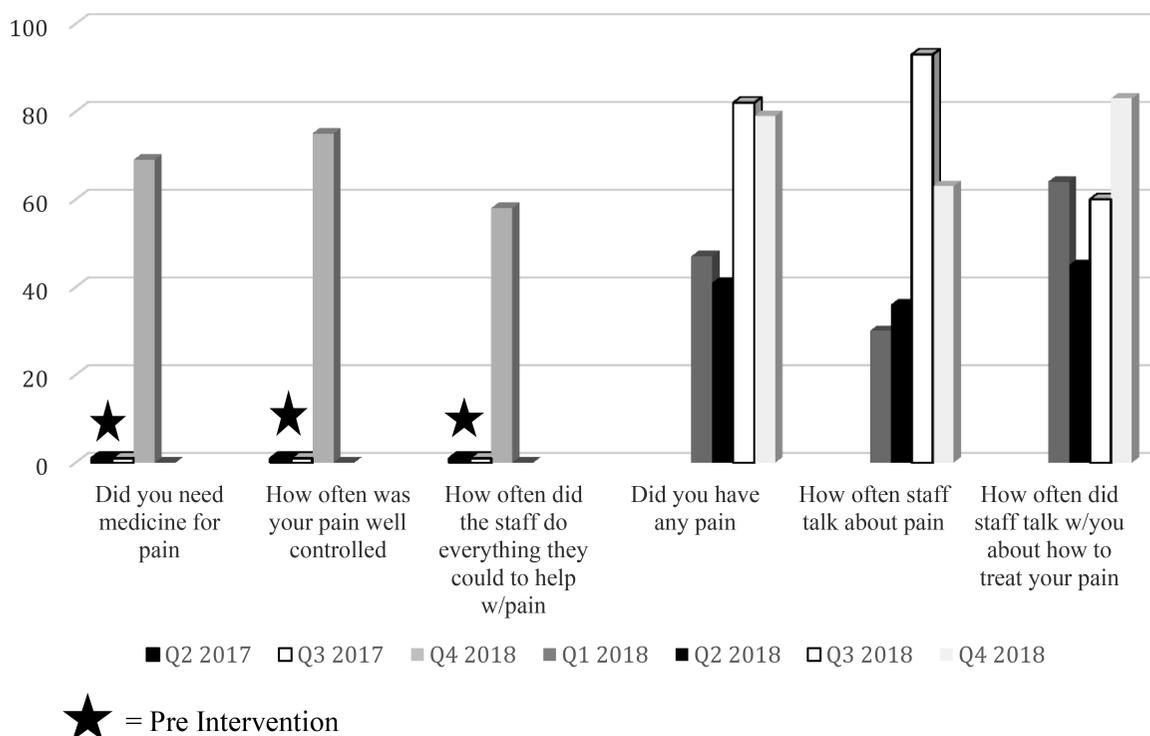


Figure 2. Pre- and Postintervention HCAHPS scores. Pre- and postintervention implementation percentiles by quarter and by HCAHPS question. The HCAHPS scores improved for all questions from below the 5th percentile prior to intervention to the 30th- to 93rd-percentiles after intervention. This is further delineated by the drastic change from Q3 2017 when all pain HCAHPS questions ranked in the 1st percentile, to Q4 2017, the year of implementation, when the same questions ranked the 58th, 69th, and 75th percentiles.

TABLE 1 HCAHPS Pain Question Results (Mean Percentiles)

	Pain Management	Pain Well Controlled	Staff Do Everything to Help With Pain	Communication About Pain	How Often Staff Talk About Pain	How Often Staff Talk About Pain Treatment
Preintervention						
Q2 2017	1% percentile	1 percentile	1 percentile			
Q3 2017	1 percentile	1 percentile	1 percentile			
Intervention						
Q4 2017	69 percentile	75 percentile	58 percentile			
Postintervention						
Q1 2018				47 percentile	30 percentile	64 percentile
Q2 2018				41 percentile	36 percentile	45 percentile
Q3 2018				82 percentile	93 percentile	60 percentile
Q4 2018				79 percentile	63 percentile	83 percentile

HCAHPS average percentiles reported for pain-related questions in Q2 2017 and Q3 2017 before program implementation and Q4 2017, Q1 2018, Q2 2018, Q3 2018, and Q4 2018 after implementation.

TABLE 2 Patient Characteristics (Postintervention Period)

	Q4 2017	Q1 2018	Q2 2018	Q3 2018	Q4 2018
Total number of respondents	410	352	339	316	403
Age, <i>M (SD)</i>	54 (22.53)	59 (20.85)	56 (22.15)	54 (21.56)	58 (23.24)
ISS-ICU, <i>M (SD)</i>	17.2 (12)	14.4 (8.20)	15.8 (13.56)	15.1 (9.6)	14.9 (8.9)
ISS-non ICU, <i>M (SD)</i>	6.9 (10.13)	6.9 (10.56)	6.7 (7.83)	7.0 (9.72)	7.0 (7.91)

Note. ICU = intensive care unit; ISS = Injury Severity Score.

Quarter 3 of 2018 showed an upward trend in the data, maintained in Quarter 4 of 2018, which may be related to the reeducation at that time.

An increasing body of work has been produced over the last 5–10 years attempting to expand the concept of postoperative and posttraumatic pain reduction. Specifically, this effort has sought to extend beyond the traditional pharmacologic model of simply employing increasing doses of analgesics in response to greater patient complaints of pain. This newer concept of pain “management” as part of an overall emphasis on patient satisfaction has brought in multiple modalities that are directed at influencing both the patients’ perception of pain, and maybe more, their perception of their medical team’s ability and interest in effectively addressing their pain. Although it might seem intuitive that pain is more efficiently addressed by the prompt and sufficient application of pharmacologic agents, this may not necessarily be the case, and can be better managed through a multi-

disciplinary approach where each member of the multidisciplinary team is communicating consistently with the patient.

Alaloul et al. conducted a prospective study in which nurses utilized a script-based dialogue with patients regarding pain management and expectations of pain level. This study found a similar result to ours; HCAHPS satisfaction scores of pain-related questions increased following their implementation of this discourse in addition to use of whiteboards in hospital rooms and hourly rounding (Alaloul, Williams, Myers, Jones, & Logsdon, 2015). Schroeder et al. conducted a study of 190 orthopedic surgery patients given both the American Pain Society Patient Outcome Questionnaire-Revised (APS-POQ-R) and HCAHPS surveys, half before nursing training in postoperative pain assessment and management, and half after. Though there was no change in APS-POQ-R scores, a small increase in the relevant HCAHPS question scores was achieved (Schroeder et al., 2016). Best

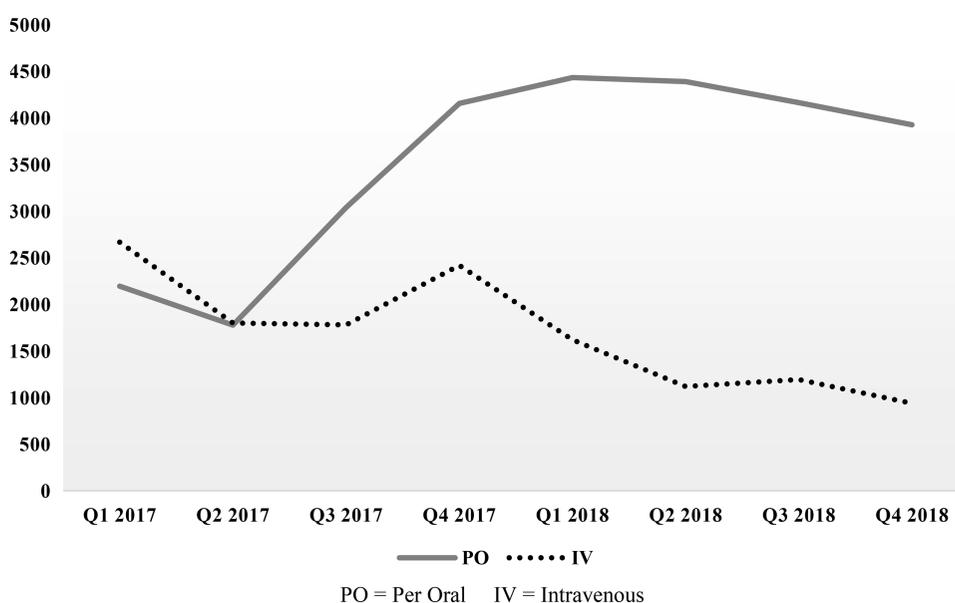


Figure 3. Quantity of oral versus intravenous opioid dosages per quarter (Q1 2017–Q4 2018). Opioid oral use/total opioid doses increased by 28.3%, whereas opioid intravenous use/total opioid doses decreased by 47.9% (Q1 2017–Q4 2018).

et al.'s study on a scripted pain education program for 100 outpatient surgical patients using a control group of 50 patients receiving "usual" instruction found that there was a significantly greater favorable response rate in the scripted group to the question regarding whether the scripted pain instruction was helpful in controlling the pain. The two groups, however, were comparable in their response to whether they had received preoperative pain management (Best et al., 2018).

Therefore, this study found a favorable outcome related to changes to improve patient satisfaction. Facets of this satisfaction include patient appreciation of pain management education to include realistic goal setting, their perception that staff are actively working to manage their postoperative pain, and overall levels of "satisfaction" relating specifically to pain. The 2017 data also showed an improvement in the perceived level of pain control obtained, though this parameter was not present in the HCAHPS 2018 survey.

LIMITATIONS

Besides the discontinuity of the HCAHPS questions detailed earlier, limitations of this study include a single-institution study with a relatively small sample size. The study had no control group due to the change in HCAHPS questions changing from 2017 to 2018 (Industry Edge 2017; Thompson, 2017). This is a significant limitation in this study for the first quarter, but one that could not be anticipated. Another limitation is the absence of a contemporaneous control group. A historical comparison was used, which relied on standardized HCAHPS methodology; this does not allow for causality. The "snapshot" nature of the patient assessment does not allow for the correlation between improved patient perception of pain control and staff pain management, as well as important longer-term questions of levels of chronic pain, analgesic requirements, and restoration of function. Additionally, this study did not look at specific medications versus other medications. Lastly, many factors could have had an impact on the dependent variable (HCAHPS scores) such as voluntary response bias, patient education level, socioeconomic status, pain perception and tolerance, previous use of opioids (acute versus chronic opioid use), type of injury and surgical procedure, and the presence of social support.

This study focused on pain satisfaction in trauma patients who were older than 18 years who were admitted to the hospital with blunt and/or penetrating injuries. However, future research may study other specific populations who utilize opioids for pain control (e.g., cancer patients, individuals with chronic fibromyalgia, and polysubstance abusers). Medical literature supports the use of an integrated, multiapproach, multidisciplinary, and patient-centered method of pain control focusing on

psychosocial and multimodal aspects. Local and federal governmental initiatives may implement educational and health policies to reflect this improved approach to pain management.

CONCLUSION

The implementation of a collaborative and systematic pain management program was associated with increased patient satisfaction as measured by HCAHPS scores related to pain. The pain management strategy involved a three-pronged approach of a scripted patient education message delivered by a dedicated trauma nurse leader program, collaboration with a pain management team, and development of a new trauma admission order set. This approach improved effective communication with trauma patients regarding their pain, evidenced by the consistent increase in pain satisfaction HCAHPS scores following hospital discharge. Scripting, similar to the "checklist" concept used near universally in the operating room environment, can contribute significantly to the consistency of the message, as well as allow for more meaningful data evaluation and outcome assessment. This pain management program can drastically improve patient satisfaction with respect to their pain level, ameliorating the experience of patients in the hospital following traumatic events.

KEY POINTS

- A mere pharmacologic approach to pain management is insufficient for improved patient outcomes.
- Implementation of a comprehensive pain management strategy involving a three-pronged approach of a dedicated trauma nurse leadership program, pain team collaboration, and trauma admission order set modification was associated with improved pain communication and pain satisfaction scores.
- Local and federal governmental initiatives may implement educational and health policies to reflect this improved approach to pain management.

REFERENCES

- Alaloul, F., Williams, K., Myers, J., Jones, K. D., & Logsdon, M. C. (2015). Impact of a script-based communication intervention on patient satisfaction with pain management. *Pain Management Nursing, 16*(3), 321–327. doi:10.1016/j.pmn.2014.08.008
- Archer, K. R., Castillo, R. C., Wegener, S. T., Abraham, C. M., & Obremskey, W. T. (2012). Pain and satisfaction in hospitalized trauma patients: The importance of self-efficacy and psychological distress. *Journal of Trauma and Acute Care Surgery, 72*(4), 1068–1077. doi:10.1097/TA.0b013e3182452df5
- Best, J. T., Musgrave, B., Pratt, K., Hill, R., Evans, C., & Corbitt, D. (2018). The Impact of scripted pain education on patient satisfaction in outpatient abdominal surgery patients. *Journal of Perianesthesia Nursing, 33*(4), 453–460. doi:10.1016/j.jopan.2016.02.014

- Brady, K. T., McCauley, J. L., & Back, S. E. (2015). Prescription opioid misuse, abuse, and treatment in the United States: An update. *American Journal of Psychiatry, 173*(1), 18–26. doi:10.1097/TA.0b013e3182452df5
- DeVore, J., Clontz, A., Ren, D., Cairns, L., & Beach, M. (2017). Improving patient satisfaction with better pain management in hospitalized patients. *The Journal for Nurse Practitioners, 13*(1), e23–e27. doi:10.1016/j.nurpra.2016.07.020
- Glowacki, D. (2015). Effective pain management and improvements in patients' outcomes and satisfaction. *Critical Care Nurse, 35*(3), 33–41. doi:10.4037/ccn2015440
- Hanna, M. N., González-Fernández, M., Barrett, A. D., Williams, K. A., & Pronovost, P. (2012). Does patient perception of pain control affect patient satisfaction across surgical units in a tertiary teaching hospital? *American Journal of Medical Quality, 27*(5), 411–416. doi:10.1177/1062860611427769
- Health Services Advisory Group. (n.d.). *Hospital consumer assessment of healthcare providers and systems*. Retrieved March 8, 2019, from <https://www.hcahpsonline.org/>
- Industry Edge. (2017, May 18). *Revised HCAHPS pain management questions: What you need to know*. Retrieved from <https://www.pressganey.com/blog/revised-hcahps-pain-management-questions-what-you-need-to-know>
- Kahn, S. A., Iannuzzi, J. C., Stassen, N. A., Bankey, P. E., & Gestring, M. (2015). Measuring satisfaction: Factors that drive hospital consumer assessment of healthcare providers and systems survey responses in a trauma and acute care surgery population. *The American Surgeon, 81*(5), 537–543.
- Schroeder, D. L., Hoffman, L. A., Fioravanti, M., Medley, D. P., Zullo, T. G., & Tuite, P. K. (2016). Enhancing nurses' pain assessment to improve patient satisfaction. *Orthopaedic Nursing, 35*(2), 108–117. doi:10.1097/NOR.0000000000000226
- Schwartz, T. M., Tai, M., Babu, K. M., & Merchant, R. C. (2014). Lack of association between Press Ganey emergency department patient satisfaction scores and emergency department administration of analgesic medications. *Annals of Emergency Medicine, 64*(5), 469–481. doi:10.1016/j.annemergmed.2014.02.010
- Thompson, C. A. (2017). HCAHPS survey to measure pain communication, not management. *American Journal of Health Systems Pharmacy, 74*(23), 1924–1926. doi:10.2146/news170084

For more than 148 additional continuing education articles related to pain management, go to [NursingCenter.com](https://www.nursingcenter.com).

Instructions:

- Read the article. The test for this CE activity is to be taken online at [NursingCenter.com](https://www.nursingcenter.com).
- You will need to create (it is free!) and login to your personal CE Planner account before taking online tests. Your planner will keep track of all your Lippincott Professional Development online CE activities for you.
- There is only one correct answer for each question.
- A passing score for this test is 13 correct answers. If you pass, you can print your certificate of earned contact hours and access the answer key. If you fail, you have the option of taking the test again at no additional cost.
- Questions? Contact Lippincott Professional Development: 800-787-8985.

Registration Deadline: March 4, 2022

Provider Accreditation:

LPD will award 1.5 contact hours for this continuing nursing education activity.

LPD is accredited as a provider of continuing nursing education by the American Nurses Credentialing Center's Commission on Accreditation.

This activity is also provider approved by the California Board of Registered Nursing, Provider Number CEP 11749 for 1.5 contact hours. Lippincott Professional Development is also an approved provider of continuing nursing education by the District of Columbia, Georgia, and Florida #50-1223. Your certificate is valid in all states.

Disclosure Statement:

The authors and planners have disclosed that they have no financial relationships related to this article.

Payment and Discounts:

- The registration fee for this test is FREE for STN members and \$17.95 for nonmembers.
- STN members can take JTN CE for free using the discount code available in the members-only section of the STN website. Use the discount code when payment is requested during the check-out process.

DOI: 10.1097/JTN.0000000000000499