

JHQ 161 - Changing Unit Culture: An Interdisciplinary Commitment to Improve Pain Outcomes

Heather Chung, Phuong H. Nguyen

Keywords: *Change theory, Pain management systems, Quality improvement*

March/April 2005

Patients discharged from The Methodist Hospital, Houston, TX, are contacted post discharge and asked to assess the care provided; specific questions are focused on pain management. Responses to these questions were initially unfavorable: only approximately 72.4% of patients were completely satisfied. An interdisciplinary team was developed on an acute-care unit at the hospital to individualize pain management through daily rounds and improvements in nursing assessment. Kurt Lewin's change theory was utilized to improve patient outcomes and to bolster staff commitment to control pain more effectively— as evidenced by improved patient satisfaction scores to a high of 86% only 3 months following implementation of this new interdisciplinary program.

Recognition of pain as the fifth vital sign has created a paradigm shift in healthcare. Individuals previously tolerated mild to severe pain because it was considered unavoidable. Current guidelines indicate that all members of the healthcare team should actively facilitate effective pain management (Acute Pain Management Guideline Panel [APMGP], 1992; American Pain Society [APS], 1999). There is growing synergy through interdisciplinary team collaboration among physicians, nurses, and pharmacists, with the patient as an active team member.

The literature indicates that pain is in the top percentile of reasons for seeking medical care for approximately 9 in 10 sufferers in the United States. However, research reveals that pain is significantly undertreated (Pasero & McCaffery, 2001), and greater than \$100 billion is spent yearly in the United States on treatment, lost revenues, and wages for chronic pain patients (Pearson Assessments, 2003). These costs can be remedied through adequate pain control, which leads to faster healing and recovery, earlier hospital discharge, and fewer complications (McCaffery & Pasero, 1999). In the past, brief modules on pain management sufficed. Now, incorporation of new knowledge such as the optimal multidisciplinary hospice-type pain model is recognized and addressed in medical education (Heilig & Smith, 2002). Extensive evidence reveals that the basis of effective pain management rests in sound knowledge of pain assessment techniques, pharmacological pain management strategies, and nonpharmacological management strategies (Coyne et al., 1999).

A prime motivator for appropriate pain management for hospitalized patients is the Joint Commission on Accreditation of Healthcare Organizations (2001) mandate for every healthcare organization to implement pain standards with evidence of quality improvement (QI) outcomes. Over the past 2 years, these specific standards have created a framework for accredited organizations to ensure that adequate attention is provided to patient rights for treatment of pain, not merely symptom management (Vastag, 2002). Hospitals are also evaluated for staff education and competency related to pain assessment and management (Hamdy, 2001).

This article illustrates a systems process-improvement initiative utilizing a collaborative inpatient multidisciplinary approach to improve pain-management outcomes. Kurt Lewin's widely used theory on change (Schein, 1999) guided the shift from unfavorable patient responses in the 60th–70th percentiles to responses above the 90th percentile. The article also highlights the use of an evidence-based paradigm to guide the integral aspects of the project's evolution, methods, findings, and future

vision for continual improvement of pain management for hospitalized patients.

Organizational Culture

The Methodist Hospital, in Houston, TX, is a 1,240-bed licensed tertiary-level facility that is highly utilized by community members and serves patients from 80 countries. Its mission is “to provide high quality, cost-effective healthcare that delivers the best value to the people we serve in a spiritual environment in association with internationally recognized teaching and research.” This magnet facility is challenged to respond to changes like growth in the geriatric aggregate and desire for decreasing length of stay, and the challenge is compounded by an increased case-mix index. Despite these challenges and the pressure to move patients quickly through the healthcare system, it is imperative that hospitals merge the economics of healthcare with patient-centered care. This hospital has adopted the Fetzer Institute Relationship Centered Care model (Fetzer Institute, 2002) for achieving an environment of caring within a values-focused strategic mission. The Relationship Centered Care model partners healthcare professionals with the patient and family to achieve excellence in healthcare, while promoting a nurturing and spiritual environment. Adherence to a strong value system for preserving patient dignity, respect, and rights aligns the organization for effective healthcare changes amid system pressures.

Evidence-based practice for pain management ensures that patients receive compassionate care, including timely recognition and assessment of pain. Research utilization provides a way to standardize initiatives to improve clinical outcomes through evidence-based findings (Vega-Stromberg, Holmes, Gorski, & Johnson, 2002). Crafting evidence-based practice standards for pain management is an important step toward ensuring that patients receive quality healthcare with optimal outcomes (Vastag, 2002). Improving the competency of the healthcare team to attend to patients’ pain is a major underpinning of this process. Myths held by both patients and healthcare providers that the use of opioids to control pain leads to addiction are dispelled by increased understanding of physical dependence or tolerance. The attitudes and beliefs of healthcare providers influence their actions and interventions as well as patient responses to pain. It is important that the entire team has evidence-based education that replaces old patterns of care related to pharmacology, scheduling and dosing, and adjunctive treatments.

One method of measuring patient satisfaction at this institution is a random telephone survey conducted monthly by Press, Ganey (a vendor of performance measurement and improvement services) following hospital discharge. The survey serves as a valid tool for external benchmarking among hospitals participating in the University HealthSystem Consortium (UHC). One specific question targets pain management: “Do you think the hospital staff did everything they could to control your pain?” This question and others provide insight on patients’ perceptions regarding quality of care in the domains of caring, respect, and courtesy shown by the healthcare team. Low survey results prompted a medical acute-care nursing director to develop a pain management program that can be replicated in other settings as a performance improvement project. Accomplishing desired benchmarks for patient satisfaction with pain management requires a committed multidisciplinary staff approach. A unified hospital approach consistent with Joint Commission standards for pain management was augmented with a QI “change” project to resolve the identified pain-management issues.

Improving Pain-Management Outcomes

In 2000, the hospital’s nursing and ancillary support staff incorporated pain assessment as the fifth vital sign, in compliance with Joint Commission standards. Each nursing unit identified a nurse, who attended a formal pain management workshop, to serve as a resource for other unit nurses. Because of

many competing demands for staff attention, a negative trend in patient satisfaction with pain management continued into mid-year 2002 for this nursing unit (see [Figure 1](#)). Staff accountability is a system barrier to adequate pain management (Gordon, Dahl, & Stevenson, 2000). Recognizing a leadership opportunity, the nursing director of a 30-bed acute-care medical unit developed a methodical QI proposal to improve pain management and launched a “change” initiative that emphasized nursing and pharmacy accountability within an interdisciplinary framework.

An important facet of patient satisfaction regarding medication is based on patients’ interaction with pharmacists (Gourdji, McVey, & Loisell, 2003). With that finding in mind, the nursing director and the liaison clinical pharmacist designed a practical structure for comprehensive pain management to ensure patient satisfaction. The implementation strategies included formal education, daily pain-management rounds, and unit-based pain resources.

Change Model: Project Description

Lewin’s change theory became the operational framework to revolutionize the multidisciplinary team’s routine for pain management (Lacko, Bryan, Dellasego, & Salerno, 1999). The model for the change involved a multipronged educational approach to facilitate transformative staff behavior. The three stages of the theory are *unfreezing*, or accepting the need for change; *recognizing*, or moving to a new level to alter the status quo; and *refreezing*, or integrating newly acquired knowledge and behaviors into current practice. To create a new unit culture for pain-management success required the staff to recognize the need for change through an educational approach that stimulated and ensured consistency in the application of new knowledge.

Stage 1: Unfreezing

Assessing the Problem

The first step in Lewin’s change theory is to “unfreeze” behaviors to allow acceptance of recognition for change. Unfreezing was initiated through collaboration with the nursing director and clinical pharmacist to improve pain-management satisfaction scores. In August 2002, assessment of pain-management issues for this adult medicine unit was conducted. The patient population comprises regular admissions of both acute and chronic pain patients including adult cystic fibrosis. Chart audits revealed lack of appropriate assessment, intervention, and evaluation by the nursing staff. The need to improve staff knowledge on basic concepts of pain management was vital to the program’s success. Nursing research studies consistently indicate that nursing staff education strongly correlates with improved pain management and favorable outcomes (Dalton et al., 1996).

Building a Multidisciplinary Partnership

Each team member’s unique contribution to the pain-management plan is considered. The unit-based pharmacists are vital in identifying problems through screening of physician orders and giving assistance in recommending therapy changes for optimization or avoidance of adverse drug effects. Patient care assistants, an integral part of the team who notify staff nurses of patients’ pain levels, are at the front line of care. Staff nurses assess patients’ pain needs, provide education, monitor physician orders, and complete documentation of the pain intervention. Unit secretaries answer calls from patients who need pain medications and notify the staff nurses for prompt attention. The pain resource nurses serve as clinical experts to guide practice decisions consistent with hospital policy and reinforce key pain-management dosing guidelines.

Crafting the Intervention

The clinical pharmacist created a teaching module to address pain-management deficiencies identified through needs assessment and integrated regulatory standards and hospital policy and procedure. The

in-service sessions were held on all shifts in September 2002 for all team members.

Providing the staff with a basic understanding of pain management was the first goal. The training emphasized the importance of the Joint Commission pain-management standards and the connection with unit-specific patient satisfaction scores. Discussion of frequently used terms helped staff members define differences between *addiction*, *dependence*, and *tolerance* as well as differences between *acute pain* and *chronic pain*. This was an important component because misconceptions regarding pain management were a significant factor for patients admitted with acute or chronic pain. All multidisciplinary team members were instructed on the use of questions to assist in characterizing the patient's pain (e.g., questions on quality, radiation, severity, diurnal relationship, comfort measures, and provocative factors). To address specific issues, the basic principles of pain management included concepts on routes of administration, selection of agents, appropriate dosing, timing or scheduling of analgesic administration, and monitoring of side effects. The clinical pharmacist emphasized pharmacological interventions for pain to help nursing staff choose from a variety of analgesic orders based on pain level, cross-allergy potential of agents, side-effect profile, and management of side effects. Presentation and discussion of two case studies enabled participants to incorporate the information from the module to practice.

Stage 2: Recognizing

Tools to Accomplish Change

Information management is a key aspect of an effective pain-management plan. Patient-specific information must be available for informed decision making, patient teaching, and communication among team members. The hospital's information technology department developed a computerized report to compile data on pain levels and pain medications, including doses that patients received in the previous 24 hours. This report is sent electronically to the nursing director and clinical pharmacist at 6 am daily ([Figure 2](#)). A data review is completed to determine potential recommendations and then communicated to the unit-based pharmacist and downloaded for the unit charge nurse. The pain report also serves as a tool to reinforce the educational objectives through assessment of appropriate selection of analgesic agents for specific pain levels and timeliness of staff response to patient needs. In addition, the report helps to identify patients who require more focused attention on pain management. The electronic report was integral to helping staff recognize the need for change.

Pain Rounds

The nursing director and clinical pharmacist utilized the pain report as the foundation for implementing scheduled daily pain rounds. During walking rounds, patients were identified by pain scores greater than 4 or as patients who continually received pain medications without resultant pain relief. The clinical pharmacist assessed overall control with the current analgesic therapy and collaborated with nursing staff to find an alternative regimen to recommend to the physician. Constant education of nursing and pharmacy staff on appropriate analgesic selection or dose administration for range orders corresponding to specific pain scores reinforced and advanced staff understanding. The unit medical director, who is responsible for connecting with other physicians who have patients on the unit, assisted with establishing timely and appropriate ways to communicate pain needs to the physicians if necessary.

After the rounding routine was established, the charge nurse and unit-based pharmacists were mentored on the use of the electronic report and assumed the responsibility for the pain rounds with oversight from the nursing director and clinical pharmacist. The charge nurse or unit-based pharmacist assessed control of patients' pain and contacted the appropriate physician to discuss recommendations for change in a patient's treatment regimen. Overall, physicians welcomed the change recommendations.

Stage 3: Refreezing

Applying New Knowledge to Improve Pain Outcomes

Nurses on the unit displayed integration of effective pain-management goals as they began to refreeze with new behaviors and sought new solutions for effective pain management. Refreezing occurs when those involved alter the status quo to create a new culture. The staff indicated that a quick reference list of different agents used for pain would be beneficial. A pain-management pocket card was developed by the clinical pharmacist in collaboration with physicians closely involved with pain management. The pocket card contains information on common agents used for levels of pain severity, duration of action, and equianalgesic dosage conversion assistance between intravenous formulations and intravenous to oral or vice versa, and patient-controlled analgesia dosing considerations. Pain assessment tools such as the verbal rating scale, visual analogue, and faces pain scale are included on the back of the card for easy access during patient assessment. The pocket card was approved by the pharmacy and therapeutics committee and distributed to the unit's interdisciplinary team. In addition, refreezing was noted when the staff, in order to fully evaluate the patient's pain experience, amended the electronic report to include adjunct therapies such as anticonvulsants and antidepressants used to treat pain.

Outcomes: Tracking Changes

Outcome measurements through a multiphase dynamic quality-assessment method of Plan, Do, Check, and Act (PDCA) helped formulate a problem-solving framework. The PDCA model identified necessary interventions to amend practices that may affect the quality of patient care (see [Figure 3](#)). As the clinical team assumed responsibility for pain rounds, they found additional outcomes important to pain management. They amended the pain report to include number of bowel movements and patient allergies in order to obtain a more complete and efficient patient evaluation.

The pain report also served as an indicator of improvements in nursing pain assessment. These improvements in assessment provided insight into the change in unit culture related to appropriate pain assessment and management. The nursing and pharmacy staffs are integrating more effective pain-management skills into their daily activities and are reacting to elevated pain levels as one would to changes in vital signs, such as blood pressure.

As an objective QI measure, the unit's score for the question "Do you think the hospital staff did everything they could to control your pain?" was culled from the hospital's patient satisfaction survey discussed earlier. From May to August 2002 (6 months prior to implementation of the program), the patient satisfaction scores averaged 72.4% (range 66%–78.3%) based on a rolling average of 33 responses per month. The team set a goal for improving patient satisfaction scores at 86% at 6 months. In the 3 months following implementation of the program, patient satisfaction scores increased to a high of 86% based on 48 responses (Figure 1). The trend for improvement continued well into 2003, when the unit received a year-to-date pain satisfaction score of 97.2%.

Discussion

Numerous agencies have published evidence-based standards for effective pain management. Concern for improved outcomes and patient satisfaction prompted this interdisciplinary process-improvement initiative. The multidimensional nature of pain creates a complex management problem. Clinical staff require education at the point of service to change entrenched attitudes and beliefs for the better. Changes in staff attitudes and beliefs create receptivity to new information, the first unfreezing stage in Lewin's theory on change. As staff members recognized the links between accurate and timely assessment, prompt information sharing, and increased patient comfort, they increasingly invested in the unit transformation. As scores marked an upward trend, the unit staff experienced the positive

benefits of a turnaround, thus refreezing new positive behavior.

Survey scores enabled staff to objectively measure patient satisfaction with pain management during hospitalization. However, pre- and posteducation examinations were not conducted, limiting an objective measure of staff knowledge. These staff improvements were measured subjectively through observation of practice and staff interactions. Because this initiative encompasses the commonly used change theory of Lewin and PDCA, the stages of this QI strategy may be replicated in other settings. The success of such a program rests on the dedication and accountability of the entire multidisciplinary team, whose members unite to improve pain outcomes.

Conclusion

The commitment to better pain management through an interdisciplinary team has improved patient satisfaction, specifically regarding pain management as reflected by the improvements in satisfaction scores above the 90th percentile. Future directions include continual staff education on analgesic regimens, particularly for opioid use in pain management, incorporation of symptom management, and minimization of meperidine use. The outcomes of this change project demonstrate the utility of interdisciplinary initiatives to convert long-term problems into success stories and offer a model for others.

[Take a test](#) on the article you just read for continuing education credit!

Author's Biography

Heather Chung, MS RN, is the director of nursing for a medical unit at The Methodist Hospital, Houston, TX. She has completed her master's in nursing and is currently a PhD candidate at Texas Woman's University.

Phuong H. Nguyen, PharmD BCPS, is a clinical pharmacy specialist in internal medicine at The Methodist Hospital, Houston, TX. She completed her doctoral training at the University of Texas at Austin and postdoctorate residency training at The Methodist Hospital.

For more information on this article, contact Phuong H. Nguyen by phone at 713/441-0169 or by e-mail at phnguyen@tmh.tmc.edu.

Acknowledgements

The authors would like to thank the Dunn 8 West staff at The Methodist Hospital for their continued efforts to improve pain management, Dr. Gwen Sherwood for her wonderful editorial expertise, Dr. Marcia Levetown for providing us with advice in furthering the initiative to include palliation management, and the IT department for assisting with the development of the electronic daily pain report.

References

Acute Pain Management Guideline Panel [APMGP]. (1992). *Acute pain management in adults: Operative or medical procedures and trauma: Clinical practice guideline*. AHCPR Pub. No. 92-0032. Rockville, MD: Agency for Health Care Policy and Research, Public Health Service, U.S. Department of Health and Human Services.

American Pain Society [APS]. (1999). *Principles of analgesic use in the treatment of acute pain and cancer pain* (4th ed.). Glenview, IL: Author.

Coyne, M., Reinert, B., Cater, K., Dubuisson, W., Smith, J.F., Porter, M.M., et al. (1999). Nurses' knowledge of pain assessment, pharmacologic and nonpharmacologic interventions. *Nursing Research*,

8(2), 153–165. Retrieved August 22, 2002, from the ProQuest database.

Dalton, J. A., Blau, W., Carlson, J., Mann, J. D., Bernard, S., Toomey, T., et al. (1996). Changing the relationship among nurses' knowledge, self-reported behavior, and documented behavior in pain management: Does education make a difference? *Journal of Pain and Symptom Management*, 12, 308–319.

Fetzer Institute. (2002) *The key to humanity's future lies in the productive link of the mind, body, and spirit*. Retrieved April 18, 2002, from <http://www.fetzer.org/>

Gordon, D. B., Dahl, J. L., & Stevenson, K. K. (2000). Introduction. In D. B. Gordon, J. L. Dahl, & K. K. Stevenson (Eds.), *Building an institutional commitment to pain management. The Wisconsin resource manual* (2nd ed.). Madison, WI: University of Wisconsin–Madison Board of Regents.

Gourdji, I., McVey, L., & Loisell, C. (2003). Patients' satisfaction and importance ratings of quality in an outpatient oncology center. *Journal of Nursing Care Quality*, 18(1), 43–55.

Hamdy, R. (2001). The decade of pain control and research. *Southern Medical Journal*, 9(8), 753–754. Retrieved August 22, 2002, from Ebsco host database.

Heilig, S., & Smith, D. (2002). *The politics of pain: The need for new policies and approaches*. Retrieved February 22, 2003, from <http://www.sfms.org/sfm/sfm/sfm2002d.htm>

Howell, D., Butler, L., Vincent, L., Watt-Watson, J., & Stearns, N. (2000). Influencing nurses' knowledge, attitudes, and practice in cancer pain management. *Cancer Nursing*, 23, 55–63.

Lacko, L., Bryan, Y., Dellasaga, C., & Salerno, F. (1999). Changing clinical practice through research: The case of delirium. *Clinical Nursing Research*, 8(3), 235–250. Retrieved September 9, 2002, from ProQuest database.

McCaffery, M., & Pasero, C. (1999). *Pain: Clinical manual* (2nd ed.). St. Louis: Mosby.

Pasero, C., & McCaffery, M. (2001). The undertreatment of pain: Are providers accountable for it? *American Journal of Nursing*, 101(11), 62–65.

Pearson Assessments. (2003). *New JCAHO standards require pain assessment protocol*. Retrieved April 19, 2003, from <http://www.pearsonassessments.com/assessments/bridginggap/spring2001p1.htm>

Schein, E. (1999). Kurt Lewin's change theory in the field and in the classroom: Notes toward a model of managed learning. *Reflections* 1(1), 59–74.

Vastag, B. (2002). Pain guidelines encourage vigilance. News and analysis. *JAMA: The Journal of the American Medical Association*, 287(23), 3067–3068.

Vega-Stromberg, T., Holmes, S. B., Gorski, L. A., & Johnson, B. P. (2002). Road to excellence in pain management: Research, outcomes and direction (ROAD). *Journal of Nursing Care Quality*, 17(1), 15–26.

Objectives

Journal for Healthcare Quality is pleased to offer the opportunity to earn continuing education (CE) credit to those who read this article, take the posttest at www.nahq.org/journal/ce, and complete the hard copy or online form. This continuing education offering, JHQ 161, will provide one contact hour to those who complete it appropriately.

Core CPHQ Examination Content Areas

I. Management and Leadership

IV. -Performance Measurement and Improvement

Source: http://nahq.dev.imagescape.com/journal/ce/article.html?article_id=228