

Billings Clinic. Interdisciplinary
Nursing Quality
Research Initiative

INQRI
Interdisciplinary Nursing Quality Research Initiative Robert Wood Johnson Foundation

Improving Pain Care Quality in Hospitalized Patients

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Billings Clinic. Disclosure

Jeannine Brant, PhD, APRN, AOCN


- Jeannine Brant, PhD, APRN, AOCN has disclosed that she has no financial interest or other relationships with the manufacturers of medical commercial products.
- Jeannine Brant, PhD, APRN, AOCN declares that discussion of any medical commercial products known to her as unlabeled, or outside of FDA approved indications will be clearly revealed by her to the audience as such.
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Billings Clinic. Objectives

- List the challenges of measuring pain care quality
- Describe the development of quality indicators to monitor interdisciplinary pain care
- Discuss the rollout of pain care quality indicators throughout U.S. hospitals


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BillingsClinic. Our Team Members

- University of Utah
 - Susie Beck, PhD, APRN, FAAN
 - Patricia Berry, PhD, APRN, BC-PCM
 - Bob Wong PhD
 - Jackie Eaton MS, Doctoral Student
 - Jia-Wen Guo MS, Doctoral Student
- NDNQI, Kansas University Medical Center
 - Nancy Dunton, PhD
 - Beth Spornitz
 - Catima Potter MPH
- Billings Clinic, Billings, MT
 - Jeannine M. Brant PhD, APRN-CNS
- Intermountain Healthcare
 - Lucy Savitz PhD

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BillingsClinic. Health Care Quality

- Measurement of healthcare quality is a national priority
- What is quality?
 - “The degree to which health services for individuals and populations increase the likelihood of desired health outcomes and are consistent with current professional knowledge” (Lohr, 1990, p. 21)
 - “...the health outcomes that patients desire” (Chassin & Galvin, 1998, p. 101)

Lohr, L.N. (Ed.) Medicare (1990). A strategy for quality assurance. Washington, DC: National Academy Press. Chassin, M.R., & Galvin, R.W. (1998). The urgent need to improve health care quality. Institute of Medicine National Roundtable on Health Care Quality. JAMA, 280, 1000-1005.

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What is Driving Pain Care Quality?

- Best practice environments – Magnet Hospitals
- Consumers
- Patient satisfaction surveys
 - Picker
 - Avatar
 - Press Ganey
- Pay for performance
 - HCHAPS

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More About HCAHPS

- Press Ganey HCAHPS (Hospital Consumer Assessment of Healthcare Providers and Systems)
 - Survey is the first national, standardized, publicly reported
 - Survey of patients' perspectives of hospital care. HCAHPS (pronounced "H-caps"), also known as the CAHPS®
- Hospital Survey
 - During your hospital stay how often was your pain well controlled?
 - During your hospital stay how often did the hospital staff do everything they could to help you with your pain?
 - "Never," "Sometimes," "Usually," "Always"

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Challenges in Measuring Quality

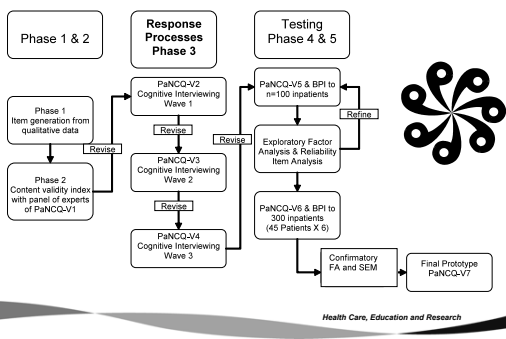
- Most measures occur after the hospitalization
- Recall of pain and other quality indicators may be difficult
- Lack of research-tested quality measures
- Inability to effectively measure pain care quality

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Study Aims

- Project Aims: To develop and test a parsimonious instrument that measures of the quality of nursing and interdisciplinary care related to pain management.

The Iterative Process

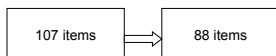


Phase 1: Item Generation

- In-depth qualitative interviews
- Two groups of patients with unrelieved pain (n=33)
 - Advanced cancer
 - Post-operative for cancer surgery
- Transcribed and analyzed (N-Vivo)
- 107 items generated from interview data

Phase 2: Content Validity Part 1

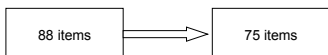
- Judgment Stage
- 5 Research team members rated item relevance
- 19 items deleted



- Examples:
 - My nurse treated me gently.
 - I had complete pain relief.
 - My pain control was as good as it could be.

Content Validity

- Reviewed by 9 national pain management and nursing care quality experts
- Content Validity established ($p = .05$) if 8/9 experts agreed the item was relevant.
- A conservative approach—more items retained.
 - Expert panel results: items were deleted, reworded, & added

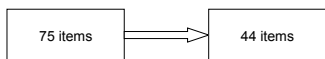


Phase 3: Response Processes

- Cognitive Interviewing: Back to the Patients
- Settings
 - Huntsman Cancer Hospital, University of Utah, Salt Lake City, UT
 - St. Vincent Healthcare, Billings, Montana
 - Norris Cotton Cancer Center, Dartmouth Hitchcock Medical Center, Lebanon, NH
- Focus:
 - How participants understood the 75 items
 - How they selected a response on 6 point Likert-type scale
 - Could they answer based on nursing care during past shift

Analysis and Results

- Responses to the PaNCQ survey items were summarized for each item using a matrix tool
- Summarized, discussed each item as a team.
- Decision to delete, test more (usually with rewording), or keep.
- Hospitalized patients able to judge quality of nurses and interdisciplinary team
- Role of nurse in pain management may not always be clear to patients
 - Need for two scales
 - Nursing
 - Interdisciplinary



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Phase 4: Testing Exploratory Factor Analysis



Goal: Establish Validity and Reliability
Pain-CQ Surveys administered

- 44 items on a 6 point Likert type scale
- Within 2 hours of completion of nursing care shift
- 2 subscales
 - Nursing Care
 - Interdisciplinary
- Included Brief Pain Inventory and some medical record extraction
- Inclusion Criteria
 - Inpatients with an expected length of stay of more than 24 hours
 - Diagnosis of cancer or surgery for cancer or a suspected cancer diagnosis
 - Presence of pain
- Same settings
- n=109 patients
 - Age 20 to 84 (Mean = 53.1)
 - 58.7% female
 - 85% non-Hispanic White

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EFA Results

Pain-CQ Nursing Care

Three factors, k=22 items

1. Treated Right – 15 items, alpha = .95
2. Holistic Care – 3 items, alpha = .77
3. Effective Pain Management – 4 items, alpha = .87

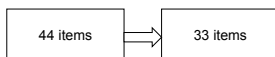
66.1% shared item variance

Pain-CQ Interdisciplinary Scale

Two factors, k=11 items

1. Partnership – 6 items, alpha = .85
2. Holistic Care – 5 items, alpha = .76

56.3% shared item variance



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National Database of Nursing Quality Indicators – National Snapshot

- Collected Pain Quality Indicator data directly from patients
- No Protected Health Information and verbal consent (350 IRB approvals)
- Two weeks in April 2011
- Patients who were over 18, could speak and understand English, on unit for 24 hours, and experiencing pain
- All data submitted electronically by May 9

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Who participated ?

- | | |
|--|---|
| <ul style="list-style-type: none"> • 324 NDNQI Hospitals •44% < 200 beds •36% 200-400 beds •20 % > 400 beds •12% Academic medical Center •40% Teaching hospitals •48% Non-Teaching •89% Urban | <ul style="list-style-type: none"> • 1594 Nursing Units •Step-Down 16% •Medical 22% •Surgical 19 % •Med/Surg 29% •Rehabilitation 5% •Obstetrics 10% |
|--|---|

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Who participated ?

- | | |
|---|--|
| <ul style="list-style-type: none"> • 22,071 on unit > 24 hours and available for screening •99.2% > 19 •93% English •72% pain •14,850 eligible •12,173 consented (82%) | <ul style="list-style-type: none"> • 12,168 participated •Age 19 to 90+ •Median Age 59 •38% were 65 + •59.3% female •6.5% Hispanic •15% African American •2.6% Native American •2% Asian •1% Hawaiian or Pacific Islander |
|---|--|

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Pain Outcomes

- The median pain on average during past 24 hours was 6 (0 to 10 scale)
- 93% received pain medication
- For those receiving treatment, the average percent relief was 71.9%.
- 28.5% were in severe pain frequently or constantly

Pain Care Quality Results

Indicator	Strongly or moderately Agree	Strongly or moderately Disagree
My nurse believed my reports of pain	92.8%	2.4%
I had pain medication available when I needed it	88%	5.1%
The pain medication worked well to control my pain	76.9%	8.5%
The health care team involved me in decisions about controlling my pain.	74.5%	14.2%
In addition to medications, my nurse suggested other approaches to manage my pain	55.9%	29.3%
My nurse discussed side effects of the pain medications with me.	50.2%	35.6%

Next Steps

- Intervention phase currently underway
 - Lowest (10%) in nation participating in intervention
 - Randomized to control, online toolkit, online toolkit plus community of practice group
 - <https://www.nursingquality.org/pstk/>
- Audits will occur again in November
- Need to test the tool in the ambulatory setting
- Which measures should be monitored?
- What are the benchmarks?



American Pain Society Patient Outcome Questionnaire (APS-POQ-R)

- Administered within 24 hours of admission
- Five subscales and variance explained
 - Affective (anxious, depressed, frightened, helpless) **10.97%**
 - Pain Severity and Sleep Interference **32.54%**
 - Adverse Effects **8.2%**
 - Perceptions of Pain Care **7.49%**

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Questions

- Least pain in 24 hours
- Worst pain in 24 hours
- Estimate of percentage of time in severe pain
- Pain interfered or prevented you from activities in bed
- Pain interfered or prevented you from activities out of bed
- Pain interfered or prevented you from falling asleep
- Pain interfered or prevented you from staying asleep
- How much the pain caused you to feel anxious
- How much the pain caused you to feel depressed
- How much the pain caused you to feel frightened
- How much the pain caused you to feel helpless
- Severity of nausea
- Severity of drowsiness
- Severity of itching
- Severity of dizziness
- Pain relief in the last 24 hours (%)
- Were you allowed to participate in decisions about pain treatment
- How satisfied are you with the results of your pain treatment

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References

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