The Challenges of Influencing Change in Pain Practice across a Health System

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Disclosures
Eileen Smith, MSN, APRN, ACNS-BC, RN-BC
– No conflict of interest
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– Speakers Bureau Mallinckrodt Pharmaceuticals
– Owner Pinnacle Pain Consulting
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– No conflict of interest
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Objectives
• Outline system-wide strategies used to improve pain management knowledge and attitudes utilizing pain champions
• Describe baseline assessment of nursing pain management knowledge across a 26 hospital healthcare system
• Outline strategies used to improve pain management knowledge
• Discuss lessons learned and challenges faced when implementing change across multiple hospitals
Outline system-wide strategies used to improve pain management knowledge and attitudes utilizing pain champions.

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Banner Health

- 26 Acute Care and Critical Access Hospitals
- In 6 states (AZ, CA, CO, NE, NV, WY)
- Nearly 50,000 employees
- Approximately 18,000 Registered Nurses

System Pain Team Facility Leads
Banner Health Pain Champion Program

Identified need to improve pain management across the system – change the “culture” surrounding pain

**Pain Champion Program** (implemented 2013)
- Pain Champions: Unit based Registered Nurses
  - Function as resource/advocate
  - Provide support peers in managing pain
- Goal: to provide a high level of pain management

**Pain Champion Lead system team:**
- System team, one lead per facility w/executive oversight (CNO)
  - Increase knowledge & safety with pain management practices across Banner
  - Improve pain satisfaction, HCAPHS scores
  - Improve pain documentation

**Selection of a Tool To Measure Adult Nurses’ Knowledge of Pain - Identified Options:**

**Considered**
1. City of Hope: “Knowledge and Attitudes Survey Regarding Pain” (revised 2014)
   - Betty Ferrall RN, PhD, FAAN
   - Margo McCallery, RN, MS, FAAN
   - True/False
   - Multiple choice
   - Case scenario

2. Participation in Clinical Reliability and Validity study
   - Pain Knowledge Assessment Tool
   - Esther Bernhofer PhD, RN-BC, CPN
   - Barbara St. Marie, PhD, ANP, GNP, ACHPN
Pediatric Literature

- Manworren (2000)
  - 42 T/F questions
  - Conditional permission from author
  - Required IRB approval and input into national data base

- Twycross & Williams (2011)
  - 71 Likert Scale questions
  - Permission from author
  - No requirement for IRB approval

Describe baseline assessment of nursing pain management knowledge across a 26 hospital healthcare system.

Outline strategies used to improve pain management knowledge.

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Plan

- Obtain approval - Administration and Nurse Researcher
  - Spring 2016
- Analyze results
- Develop and implement action plan
- Re-survey RN’s
  - Fall 2016
- Analyze and compare results
Initial Assessment Spring 2016

- Converted the survey to an electronic format
  - Spring: Checkbox
- Invitation to participate including the link to the survey was sent to the Chief Nursing Officers at all facilities who were asked to send it to all RN’s within their respective facilities

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Overall Results BH Spring

- Adult: N=748
- Peds: N=128

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BH Adult Scores from Individual Questions-Spring
BH Adult Scores by Question

Questions which received a score of less than 70% were reviewed

Results

Question 16 (30.71%):
True or False: Vicodin PO (hydrocodone 5 mg plus acetaminophen 300) PO is approximately equal to 5 – 10 morphine PO.

Question 8 (68.89%):
True or False: The usual duration of analgesia of 1 – 2 mg of morphine IV is 4 – 5 hours.

Question 19 (47.40%):
True or False: Benzodiazepines are not effective pain relievers and are rarely recommended as part of an analgesic regimen.

Results (continued)

Question 6 (42.99%):
True or False: Respiratory depression rarely occurs in patients who have been receiving stable doses of opioids over a period of months.

Question 37 (46.33%):
Which statement is true regarding opioid induced respiratory depression:

a. More common several nights after surgery due to accumulation of opioid
b. Obstructive sleep apnea is an important risk factor
c. Occurs more frequently in those already on higher doses of opioids before surgery
d. Can be easily assessed using intermittent pulse oximetry.
Results (continued)

Question 5 (48.73%):
True or False: Aspirin and other nonsteroidal anti-inflammatory agents are NOT effective analgesics for painful bone metastases.

Question 30 (20.83%):
Which of the following is useful for treatment of cancer pain?
- a. Ibuprofen
- b. Hydromorphone
- c. Gabapentin
- d. All of the above

Results (continued)

Question 38 B (49.53%):
Patient A:
- 25 year old male, post op day 1
- He is smiling at you and talking and joking with his visitor
- He rates his pain as 8 and has not had any issues with sedation
His physician's order for analgesia is "morphine IV 1 - 3 mg q1h PRN pain relief". Check the action you will take at this time.
1. Administer no morphine at this time
2. Administer morphine 1 mg IV now
3. Administer morphine 2mg IV now
4. Administer morphine 3 mg now

BH PEDIATRIC SCORES BY QUESTION
Section A

1. Children tolerate pain better than adults do.
3. It is OK to carry out minor procedures, such as taking blood, without the use of analgesic drugs.
11. Parents exaggerate their child’s pain.

Section B

5. The most common reason for the need to increase the dose of analgesic drugs in cancer treatment is the progression of illness.
7. The gate control theory of pain suggests that there is a gating mechanism that can inhibit pain impulses from passing through.
9. A child’s pulse rate will always be raised if they have acute pain.
10. The gate control theory suggests that the degree to which the gate is opened or closed determines whether impulses are inhibited or allowed to proceed.

Section C

5. Applying heat to a painful area reduces a child’s pain.
4. NSAIDs are unsuitable for use in some children who have asthma.

8. The risk of respiratory depression in children following the administration of opioids is no more likely than in adults, provided that the correct dosage is given.

14. Respiratory depression is rare in children who are receiving long-term opioid analgesia.

6. It is difficult to make a distinction between pain and fear in children.

Assessment of Results

• Overall
  – Knowledge deficits
    • Opioid safety
    • Pharmacology
    • Multimodal therapy
• Pediatric specific
  – Basic lack of understanding
  – Blaming
Plan

- Pain Fast Facts
- Distributed by Pain Champions throughout Banner Health via a variety of mechanisms
  - Rounding
  - Huddle questions
  - Story Boards
  - Newsletters

Adult Education

**Distribution**
- Fifteen total
- Rolled out over 10 weeks
- Reviewed at huddles in the form of a question for staff to answer and interact
- Read in staff meetings
- Emailed to all staff
- Game rounds
- Newsletter

**Fast fact example**

Which of the following is useful for treatment of cancer pain?

a. Ibuprofen (Motrin)

b. Hydromorphone (Dilaudid)

c. Gabapent (Neurontin)

d. All of the above

Fast fact: Different classes of analgesic drugs are used at the same time to control pain.

Rationale: There are different mechanisms of pain relief between opioids and non-opioid analgesics; therefore, they have no expected role in multidisciplinary pain management plans, in addition, there are often benefits in utilizing this approach, such as opioid sparing effect (total dosing requirement may be lower to provide the same level of pain relief to the patient) and reduced side effects (for example nausea, itching, and constipation).

Pediatric Education

**Distribution**
- Nineteen total
- Rolled out over 10 weeks
- Read at morning huddle
- Read in staff meetings
- Emailed to all staff
- Game rounds
- Newsletter

**Example**

**Week of August 1st**

- True/False: Children tolerate pain better than adults do.
  - False: Children, especially infants, may experience more severe pain than adults.

Rationale: Pain is transmitted along nerve fibers to the brain, called the ascending pain pathway or the pain to brain pathway. Once the brain is aware of the pain it releases signals to produce pain modulating substances (e.g., endorphins or endogenous opioids). These substances block the pain or close the gate so that the person experiences less pain.

**Example:** Studies show that young infants most likely experience a higher pain intensity than adults.
Resurvey Fall 2017

Adult and Pediatric
- Approval from our Nurse Executive Patient Safety Group
- Rebuilt electronic version in Check Box 6.0
- Redistributed survey through CNO’s at all facilities
- Ability to query team with questions about survey

Pediatric Only
- Able to stop and start
- Showed amount left to do

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Comparison Survey Results By Population

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Results
Pain Survey: Spring - Fall 2016

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Pediatric Results

Sections B and D at CCMC

Section A
Conclusions

Adult
• No significant improvement in survey scores

Pediatric
• Changes in attitude versus knowledge

Describe lessons learned and challenges faced when implementing change across multiple hospitals

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Regional Director of Professional Practice

• Sheer Scope of Communication Across 7 States and 20 Hospitals with Pain Champion Programs
Communication of Clear and Consistent Message Across the Health System

1. Cascading the information to the RN at the bedside
2. Owners of accurate email distribution lists to communicate with nurses; not every entity had an up-to-date email distribution list
3. Do staff prioritize reading email when providing care?
4. Unable to calculate an actual response rate for participation
5. Determining accurate counts on RN numbers - affected by position numbers

People Resources

1. Pain Champion
   Facility leads work intensity
2. Pain Expertise of the Facility Leads
3. Reliance on Pain Champion who works 3 12s per week to support roll out
4. Attrition of Pain Champions
5. Engagement and Commitment of Team

Financial Resources

1. Different entities had wide variation in administrative support; each hospital had to create own structure to disseminate the survey
2. Time allotted for Pain Champions to participate in activities to support initiatives varied between entities and was adjusted based on entity needs – at times meetings cut due to low census or increased need for staffing
Technology

• This scale of a project required a proficient data analyst
• Requires individuals skilled in use of on-line meeting, skype and conferencing programs & confidence in the functionality of those programs

“Chaos is roving through the system and able to undo, at any point the best laid plans”

Lessons Learned

• Allow more time for prep-work and solid plan to evaluate baseline and obtain higher response rate
• Formal Submission for IRB approval
• Data analyst to assist with interpretation and analysis of data
• Project manager

Moving Forward

• Culture does not change because we desire to change it. Culture changes when the organization is transformed; the culture reflects the realties of the people working together every day.
• As Pain Nurses We Need to Continue Working to Transform Our Cultures-Every Nurse is a Pain Management Nurse
References