



The Evolution of Pain Assessment Tools

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Conflict of Interest Statement

- Co-author:
Topham, D. & Drew D. (2017) Quality improvement project:
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Assessment (CAPA©) tool. *Pain Management Nursing*, 18 (6),
363-371.
- No other conflict of interest in regards to the content of this
presentation.

Educational Objectives

- At the conclusion of this activity participants should be able to:
 - List one advantage and disadvantage of simple pain intensity
scales
 - List two common features of tools that include measures
beyond simple pain intensity
 - Describe how complete pain assessments can guide clinical
decision-making

The Importance of Assessment in the Management of Pain

Accurate pain assessment is necessary for effective clinical care. (Gordon, 2015)

American Nurses Association (ANA) 2018

➤ Position paper entitled:

"The Ethical Responsibility to Manage Pain and the Suffering it Causes"

- *"Nurses have an ethical responsibility to relieve pain and the suffering causes."*
- *"Nurses should provide individualized nursing interventions."*
- *"The nursing process should guide the nurse's action to improve pain management."*

If one of the legs is broken- the chair cannot stand

- **Assessment is part of the nursing process.**
 - **Assessment**, diagnosis, planning, implementation
- or
- **Assessment**, planning, implementation, evaluation



Regulatory Standards

- New Joint Commission Standards (2018)
Provision of Care, Treatment, and Services (PC)

Provision of Care, Treatment, and Services (PC)
The hospital assesses and manages the patient's pain and minimizes the risks associated with treatment.

- The hospital monitors patients identified as being high risk for adverse outcomes related to opioid treatment.
- The hospital reassesses and responds to the patient's pain through the following:
 - Evaluation and documentation of response(s) to pain intervention(s)
 - Progress toward pain management goals including functional ability (for example, ability to take a deep breath, turn in bed, walk with improved pain control)
 - Side effects of treatment
 - Risk factors for adverse events caused by the treatment

Provision of Care, Treatment, and Services (PC)
The hospital assesses and manages the patient's pain and minimizes the risks associated with treatment.

- The hospital involves patients in the pain management treatment planning process through the following:
 - Developing realistic expectations and measurable goals that are understood by the patient for the degree, duration, and reduction of pain
 - Discussing the objectives used to evaluate treatment progress (for example, relief of pain and improved physical and psychosocial function)
 - Providing education on pain management, treatment options, and safe use of opioid and nonopioid medications when prescribed

Provision of Care, Treatment, and Services (PC)
The hospital assesses and manages the patient's pain and minimizes the risks associated with treatment.

- The hospital has defined criteria to screen, assess, and reassess pain that are consistent with the patient's age, condition, and ability to understand.
- The hospital screens patients for pain during emergency department visits and at the time of admission.
- The hospital treats the patient's pain or refers the patient for treatment.
- The hospital develops a pain treatment plan based on evidence-based practices and the patient's clinical condition, past medical history, and pain management goals.

History of Pain Assessment Tools

- 1968 : "Pain is whatever the experiencing person says it is, existing whenever he says it does." (McCaffery)
- 1970s :Development of **self-reported pain intensity tools**
 - Numerical Scale 0-5 tied to "Nil, Mild, Moderate, Severe & Very Severe" (Lee et al,1973)
 - Visual Analog Scale (Huskisson, 1974)
 - McGill Pain Questionnaire (Melzack, 1975)

Behavioral/Observation Tools

- 1990's-early 2000's saw development of observational tools for patients who **could not self-report** their pain experience. E.g.
 - 1993- CHEOPS (Children's Hospital of Eastern Ontario Pain Scale)
 - 1997- FLACC (Faces, legs, activity, cry, consolability)
 - 2003- PAINAD (Pain assessment in Advanced Dementia)

Self-Reported Pain Intensity Tools

- **Strengths:**
 - Valid and reliable for **acute pain** (Page et al, 2012)
 - Simple and easy to use
 - Allow for quick assessment, reassessment and can help guide clinical decision-making
- **Weaknesses**
 - Simple tools measure only pain intensity
 - Doesn't do justice to complexity of patient pain experience

Multidimensional Self-Report Tools

- McGill Pain Questionnaire (1975)
 - **Advantages:** Valid and reliable, contains a body diagram, may be helpful with multi-morbidity and pain arising from multiple causes.
 - **Disadvantages:** Long form takes 30 minutes to complete and requires literacy
- Chronic Pain Grade Scale
 - **Advantages:** measures impact overtime of persistent pain on daily, social, and work activities
 - **Disadvantages:** Complex and less useful for assessment of pain at point of care

Tide of Thought Shifting

- Reliance on one dimensional scales to guide treatment has been linked to serious adverse events: Incidences of opioid over-sedation increased in hospital stays (Pasero et al, 2016)
- Documentation of pain is treated as a regulatory nuisance and clinical decision making is not linked to assessment data.
- Pain is complex and assessment tools need to reflect that complexity, yet be pragmatic in clinical use. (Gordon, DB., 2015)
- Pain assessment is a complex communication process between the patient and clinician.

Are Pain Ratings Irrelevant?

- Speaker noted that fellow pain and palliative care colleagues didn't always ask about pain intensity using the numeric scale.
- In 2015, Short Survey of APS members, N=41, found pain clinicians do not routinely use pain intensity ratings as part of the pain assessment during clinical practice. (Backonja M & Farrar JT., 2015)
- Dowding et al (2016) reported that nurses tended not to use a pain assessment tool to aid their decision making and appeared to distrust the scores. They preferred to rely on common sense and their own experiences to assess a patient's pain.

What is a simple pain intensity rating (e.g. NRS) really measuring?

- When used by patients with chronic/persistent pain: is the patient really describing something other than pain intensity?
 - "Suffering" or "distress" ?
- What happens when clinicians use different anchors for severe pain?
 - 10= "Worst pain you've ever experienced" vs
 - 10= "Worst pain imaginable"

Some patients modulate pain reports and behaviors based on their perception of what's in their best interest.

Schiavenato, M & Craig KD. (2010) Clin J Pain. 26(8);667-676.

Multidimensional Aspects of Pain Assessment

Assessment is part of a continuous process encompassing multidimensional factors. (Finka, 2015)

- **Physiological/sensory factors**
 - Location
 - Intensity
 - Duration
 - Quality
 - Aggravating and relieving factors
 - Associative factors
- **Affect**
- **Cognition**
- **Sociocultural factors**
- **Environmental factors**
- **Patient goal**
- **Pertinent medical history**

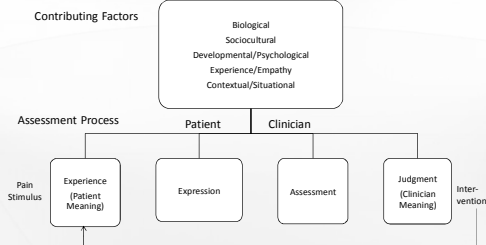
Pain Assessment as a Social Transaction

Schiavenato, M & Craig KD. (2010) Clin J Pain. 26(8):667-676.

- **Problem with self-report using a one-dimensional scale:**
 - Pain is a multi-dimensional complex experience
 - Numeric scale difficult for some to use
 - NRS requires linguistic and social skills: problematic with some of most vulnerable populations
 - Patients modulate pain behaviors and self-report based on their perception of what's in their best interest

Pain Assessment as a Social Transaction

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Examples of Contributing Factors in Pain Assessment

	Biologic	Sociocultural	Developmental-Psychological	Experience/Empathy	Contextual/Situational
Patient	Disease, clinical condition, drug influences	Ethnicity, sex, access to healthcare, cultural origin	Age, stress, drug addiction, interpersonal skills, fear	Previous experience of pain	Language, fear/stress, Similarity to clinician, socioeconomic status
Clinician	Biologic disposition, stress reactivity	Pt. preferences or biases, age, sex, education, ethnic background	Views on pain, trust/suspicion, Interpersonal skills, critical evaluation of pain report	Knowledge, clinical competence, empathy, institutional insensitivity	Workload, interdisciplinary communication, facility resources

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Tools Evolving and Expanding

- “Evaluation of functional outcomes provides a better indication of the effectiveness of pain management strategies than pain intensity ratings.” (Miaskowski, 2010, p. 27.)

Functional Pain Scale (FPS)

Gloth et al (2001)

0	2	4	6	8	10
No Pain	Tolerable activities not prevented	Tolerable prevents some active activities	Intolerable prevents many active, (not passive) activities	Intolerable prevents all active and many passive activities	Intolerable incapacitated, unable to do anything or speak due to pain

Active activities: Usual activities or those requiring effort (turning, walking, etc)
 Passive activities: talking on phone, watching TV, reading

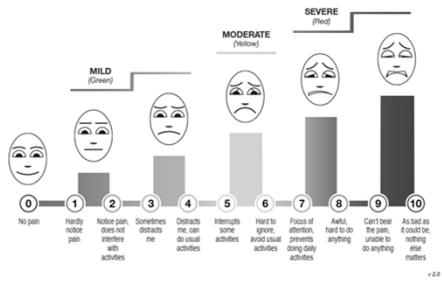
FPS best used for older adults who are unable to self-report pain level.

DVPRS

(Defense and Veterans Pain Rating Scale)

- 2008, Army Surgeon General charged 22 member pain management task force to examine pain assessment practices across military and Veterans Hospital settings
- 2010 report
 - NRS (Numerical rating scale) was inconsistently used, lacked standardized word anchors, provided minimal guidance in clinical care
- DVPRS tool developed: combines NRS, colors, FACES, words plus additional questions on general activity, sleep, mood and level of stress.
- *“Unlike the simple numeric scale, the DVPRS scale and supplemental questions encourage meaningful clinician–patient discussions about pain and its several dimensions and comorbidities, providing information that is needed to guide further clinical evaluation and to establish personalized biopsychosocial treatment plans with the patient .” (Buckenmaier et al, 2013, p.118)*

Defense and Veterans Pain Rating Scale



Permission is granted for clinicians and researchers to freely use the Defense and Veterans Pain Rating Scale (DVPRS) as is, without alteration.

DoD/VA PAIN SUPPLEMENTAL QUESTIONS

For clinicians to evaluate the biopsychosocial impact of pain

1. Circle the one number that describes how, during the past 24 hours, pain has interfered with your usual **ACTIVITY**:
 0 — 1 — 2 — 3 — 4 — 5 — 6 — 7 — 8 — 9 — 10
Does not interfere Completely interferes
2. Circle the one number that describes how, during the past 24 hours, pain has interfered with your **SLEEP**:
 0 — 1 — 2 — 3 — 4 — 5 — 6 — 7 — 8 — 9 — 10
Does not interfere Completely interferes
3. Circle the one number that describes how, during the past 24 hours, pain has affected your **MOOD**:
 0 — 1 — 2 — 3 — 4 — 5 — 6 — 7 — 8 — 9 — 10
Does not affect Completely affects
4. Circle the one number that describes how, during the past 24 hours, pain has contributed to your **STRESS**:
 0 — 1 — 2 — 3 — 4 — 5 — 6 — 7 — 8 — 9 — 10
Does not contribute Contributes a great deal

*Reference for pain interference: Cleeland CE, Ryan KM. Pain assessment: global use of the Brief Pain Inventory. Ann Acad Med Singapore 2001; 10: 108, 1094. v.2.0

CAPA® (Clinically Aligned Pain Assessment) Tool

- University of Utah – 2012 Pilot Project
- CAPA® developed to replace conventional numeric rating scale (NRS; 0-10 scale)
- Press Ganey® scores increased from 18th to 95th percentile
- 55% patients preferred CAPA®
- Nurses preferred CAPA® 3:1 over NRS

From, Donaldson & Chapman, 2013.

Clinically Aligned Pain Assessment (CAPA) “Pain is More Than Just a Number”®



- Evaluates
 - intensity of pain
 - effect of pain on functionality
 - effect of pain on sleep
 - efficacy of therapy
 - progress toward comfort
- Engages patient and clinician in a brief conversation about pain resulting in coded evaluation

From, Donaldson & Chapman, 2013.

CAPA® Tool (modified by U of MN with permission; original in blue)

The conversation leads to documentation- not the other way around.

Question	Response
Comfort	<ul style="list-style-type: none"> •Intolerable •Tolerable with discomfort •Comfortably manageable •Negligible pain
Change in Pain	<ul style="list-style-type: none"> •Getting worse •About the same •Getting better
Pain Control	<ul style="list-style-type: none"> •Inadequate pain control <i>Inadequate pain control</i> •Partially effective <i>Effective, just about right</i> •Fully effective <i>Would like to reduce medication (why?)</i>
Functioning	<ul style="list-style-type: none"> •Can't do anything because of pain •Pain keeps me from doing most of what I need to do •Can do most things, but pain gets in the way of some •Can do everything I need to
Sleep	<ul style="list-style-type: none"> •Awake with pain most of night •Awake with occasional pain •Normal Sleep

From, Donaldson & Chapman, 2013.

Anecdotes from U. of MN Experience

Patient perspective: "Makes me feel like the nurses care more about my pain."



Nurses perspective:

- "It makes sense."
- Many had been frustrated by numeric scale and liked the change. "I hated that 0-10 scale."

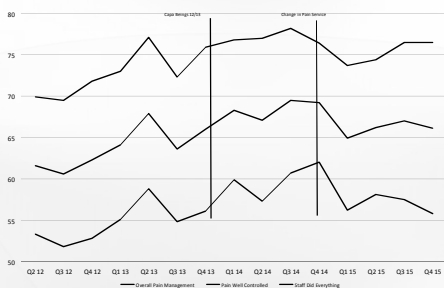
Nurse Survey At U. of MN

1 med-surg unit (N=21, 67% return)

- 80% satisfied or very satisfied with implementation
- 80% felt communication with patients improved with CAPA[®]
- 71% satisfied with rationale for change
- 66% preferred CAPA[®] over NRS
- 47% believe patients have somewhat better pain management with CAPA[®]

Thanks to Emily Drobinski, Carrie Hallstrom, Kelly Pavlicek, Mary Sylvestre, Heather White, Clare Zielinski: Unit 8A, UMMC

Quarterly Press Ganey[®] Scores Pre and Post CAPA[®] Implementation at U. of MN



Regulatory Responses to CAPA Tool

- U of MN passed two visits from TIC and CMS since incorporating this tool
 - Not necessary to tie dosing of opioids to pain intensity scores (Pasero, et al, 2016)
 - Can be dangerous to dose opioids to pain intensity alone

Tying the Use of New Pain Tools to Guide Clinical Decision Making

Sense-Making

- Existing concepts of pain recognition, assessment and management do not fully explain how the decision process occurs in clinical practice.
- Dowding, et al , (2015) research indicates that pain recognition, assessment and management is not an individual cognitive activity; it is carried out by groups of individuals over time and within a specific organizational culture or climate, which influences both health care professional and patient behavior.
- Their proposed model based on “sense-making” recognizes the salience of individual cognition and acknowledging that decisions are constructed through social interaction and organizational context

Assessment as A Clinical Art

“It remains a clinical art to combine patient’s reports, behavioral observation, and physiologic measurement with the history, physical exam, laboratory information and overall clinical context in guiding clinical judgments and therapeutic interventions.”

(Berde & McGrath, 2009) as quoted by von Baeyer, C. (2012) What’s the score in pain assessment? *MJA*, 196 (6), 379.

MCN Pharmacy & Therapeutics SAFETY COMMITTEE

PRN PAIN MEDICATION SELECTION GUIDELINES: MILD-MODERATE-SEVERE

PAIN ASSESSMENT

Patient's Self-report + Objective Assessment + Clinical Judgment = Mild-Moderate-Severe

Patient's Self-reported Pain	Objective/Bio-psychosocial Impact	Clinical Factors			PRN selects from PRN Pain medication ordered. Adjust non-drug comfort measures
No Pain	No signs/no interference	Pain history: Good Control	Knowledge of condition: Improving	Anticipatory Pain: No	Mild Moderate Severe
1-3	Distractable pain during movement/pts	↑	↑	↑	
3-6	Interference with Ex/reactivities Interferes with simple tasks				
6-10	Pain at rest Inconceivable	Pain history: Poor Control	Knowledge of condition: Declining	Anticipatory Pain: Yes	

Self-report scales: 0-10 (Numerical), Simple Descriptor, Faces, Functional

Behavioral scales: CNR, PAINAX, CPVT, RCL

Important consideration:
Decrease the need for PRN opioid analgesics by discussing with healthcare team the feasibility of scheduling routine non-opioid pain medications

In Summary

- There is growing recognition that pain intensity alone is NOT a complete assessment of a patient’s pain experience.
- Reliance on pain intensity scores to guide prescribing has led to negative outcomes.
- Assessment is an ongoing process and a social interaction between patient and clinician.
- Inclusion of pain’s effect on functionality and sleep will help set reasonable goals and guide clinical decision making in pain management.
- Nurses, and all clinicians, must hone the art of assessment in order to guide clinical decisions which result in optimal pain management for all patients.

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American Academy of Neurology	American Society of Addiction Medicine
Addiction Technology Transfer Center	American Society of Pain Management Nursing
American Academy of Pain Medicine	Association for Medical Education and Research in Substance Abuse
American Academy of Pediatrics	International Nurses Society on Addictions
American College of Emergency Physicians	American Psychiatric Nurses Association
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