

Pain and Older Adults

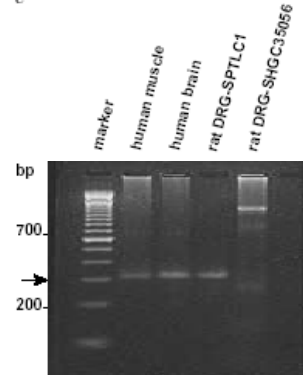
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Pain Can Serve a Function

^c (Bejaoui et al., 2001)

- **Congenital insensitivity to pain**
- **Congenital indifference to pain**



Chronic Pain as a Disease

- absenteeism
- disability
- depression of immune system
- disturbs sleep
- decreases appetite
- anxiety, fear, depression, anger, isolation
- suicide

(Niv & Devor, 2004)

Epidemiology

- 25-50% of community dwelling older adults report chronic pain
- 45-80% of older adults in nursing homes report chronic pain

(Bruckenthal, 2008)

pain is a complex phenomena





Aging Effects on Pain

- Variations in classic pain symptoms (e.g., heart attack)
- Changes in sensitivity depend upon the level of pain
- Changes in the peripheral and central nervous systems (i.e., spinal cord and brain)

(Gibson, 2002)

Aging Effects on Pain

- Meta-analysis
 - Increase in pain threshold
 - Decrease in pain tolerance

(Gibson, 2003)

Peripheral Nervous System Changes

- More damaged nerve fibers
- Fewer nerve fibers
- Nerve fibers do not function as efficiently

(Gibson, 2002)

Central Nervous System Changes

- Nerve fibers do not function as efficiently
- Nerve fibers may be more prone to sensitization
- Decreased inhibitory control
- Damaged cortical areas may differentially affect dimensions of pain

(Gibson, 2002; Bjoro & Herr, 2008)

Measurement Issues

- Requirements
- Barriers
- Types of measures

Joint Commission on Accreditation of Healthcare Organizations: Pain Standards for 2001

“In the initial assessment, the organization identifies patients with pain.... This assessment and a measure of pain intensity and quality (eg, pain character, frequency, location, and duration), appropriate to the patient's age, are recorded in a way that facilitates regular reassessment and follow-up according to criteria developed by the organization.”

Measurement Barriers

- State and Federal
 - Required reports – Long-Term Care Minimum Data Set (MDS)
- Institutional
 - Procedures
 - Personnel – education and turnover
- Individual
 - Meaning, fears, and relationships
 - Cognitive impairment or delirium

Cognitive Impairment or Delirium

- Dementia increases with age – 5% in 71-79 yrs old to 37.4% in 90 yrs old and up
- Delirium is present in 62% of older adults in ICU and 22% in nursing homes

(Plassman et al, 2007; Bjoro & Herr, 2008)

Cognitive Impairment or Delirium

- Self-report of pain still possible with mild, moderate and even some severe dementias
- Decreased number of pain complaints with increasing cognitive impairment
- Decreased frequency of pain assessment in cognitively impaired
- Cognitively impaired receive less analgesics

(Bjoro & Herr, 2008)

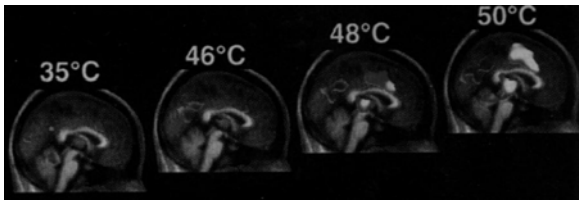
Types of Pain Measures – Older Adults

Questions to Ask

1. Who could complete the measure and in what settings?
2. Immediate information or does it have to be scored?
3. Pain information – frequency, duration, location, intensity, quality, aggravating and alleviating factors?
4. How much information do you get?
yes/no versus 0-100
5. Is it reliable?
6. Is it sensitive to treatments and related to other pain behavior?
7. What is a clinically-meaningful change using the measure?

Types of Pain Measures

- Neurophysiological correlates
- Voluntary behaviors
 - Observation – proxy & analgesic trial
 - Self-report



(Coghill et al., 1999)

Observation

- Facial expressions
- Verbalizations and vocalizations
- Body movements
- Changes in interpersonal interactions
- Changes in activities or routines
- Changes in cognitive and/or emotional status

(Bjoro & Herr, 2008)

Faces Pain Scale

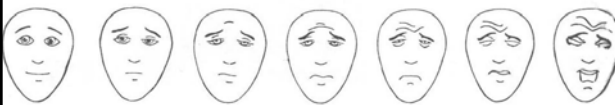
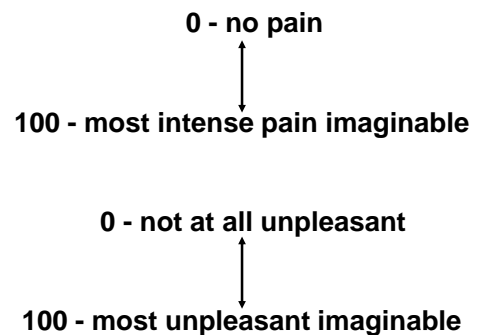
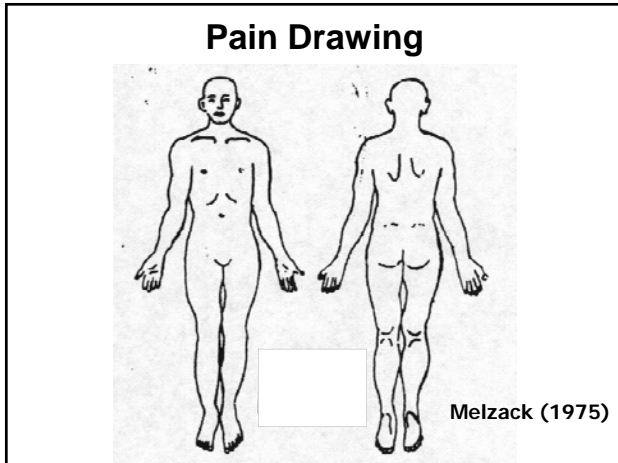


Fig. 1. The Faces Pain Scale. Numbers 0-6 left to right. Each face is 6 cm high in the experiments in phases III-V

Bieri et al. (1990)

Numerical Pain Scales





McGill Pain Questionnaire (MPQ)

Sensory Dull Sore Hurting Aching Heavy	Affective Punishing Cruelling Cruel Vicious Killing
Evaluative Annoying Troublesome Miserable Intense Unbearable	Miscellaneous Spreading Radiating Penetrating Piercing

Melzack (1975)

Verbal Rating Scales

<u>Intensity</u> - Extremely weak Very weak Weak Very mild Mild Very moderate Slightly moderate Moderate Barely strong Slightly intense Strong Intense Very strong Very intense Extremely intense	<u>Unpleasantness</u> - Bearable Distracting Unpleasant Uncomfortable Distressing Oppressive Miserable Awful Frightful Dreadful Horrible Agonizing Unbearable Intolerable Excruciating	
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Gracely et al. (1978)

Narrative Medicine

“I am going to be your physical therapist. I need to learn a lot about your pain so please tell me what you think I ought to know.”

- ### Pain Relief
- 5 - complete relief**
 - 4 - significant relief**
 - 3 - partial relief**
 - 2 - some relief**
 - 1 - no relief**
- Stahmer et al. (1998)

- ### Contraction-evoked Pain is a Problem
- **37-58% of patients with knee OA** (Badley, et al., 1989; Focht et al., 2002)
 - **chronic low back pain** (Robinson et al., 2005; Van Dillen et al., 2003)
 - **chronic myalgia - Fibromyalgia** (Roe et al., 2000; Staud et al., 2005; Mengshoel et al., 1995; Valkeinen et al., 2006; Kadetoff et al., 2006)
 - **abdominal surgery** (Morris et al., 1978)
 - **migraine** (Martins et al., 2006)

