PSYCHOLOGICAL ASPECTS OF PAIN

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DEFINITION OF PAIN

FEATURES OF THE PAIN EXPERIENCE

- Physical (sensory-discriminative)
- Emotional (affective-motivational)
- Cognitive (evaluative)
- Behavioral (interpersonal-social)

PHYSICAL DIMENSION

- How people identify and discriminate physical pain sensations
  - Location
  - Duration
  - Intensity
  - Characteristics

Emotional

- The "affective" or feeling part of the pain experience that motivates a person to try to escape pain
  - Fear
  - Worry
  - Sadness: Helplessness

Cognitive

- The part of the pain experience that involves human attempts to explain the meaning of the pain
  - Why it started
  - Why it is continuing
  - What will stop it
Behavioral

- The part of the pain experience that involves actual attempts to alter or cope with the pain
  - Verbalizing
  - Changing behaviors (limping, adapting work station)
  - Secondary gain
  - Social interaction (dependencies, support)

WHAT THIS MEANS IN PRACTICE

- People experience pain very differently, related to their unique cognitive, emotional and behavioral approaches:
  - Hurt is NOT equal to harm
  - Pain is NOT equal to suffering

WHY DO PEOPLE FEEL PAIN DIFFERENTLY?

That which influences individual differences in pain perception and expression is a function of:

- Genetics
- Past Learning
- Current Contingencies of Behavior

LEARNING and PAIN

- Observational learning
- Operant conditioning
- Avoidance learning

THE CONTEXT OF PAIN

- Emergency survival (e.g., combat)
- Sports
- Health care context

PAST EXPERIENCE, LEARNING STYLES AND CURRENT CONTINGENCIES

How pain is experienced and expressed is also related to:

1. How a person processes the pain information (cognitive-emotional): Salience
2. Other (some external) factors that influence pain dimensions
SALIENCE AND HOW PEOPLE PROCESS PAIN INFORMATION

- Salience is influenced by:
  - Immediate physical needs
  - Threat to well-being
  - Personal goals

SALIENCE AND UNDERSTANDING THE PATIENT

- The biggest problem in predicting who will succeed or fail with treatment is that humans are:
  - anatomically and genetically unique,
  - they are self-defining animals, and
  - they respond to what is salient to them at any given time and place….

FACTORS THAT INFLUENCE THE DIMENSIONS OF THE PAIN EXPERIENCE

- PHYSICAL-Sensory-discriminative:
  - Genetics: Age, sex
  - Anatomy
  - Basic pain mechanisms
  - Hormones
  - Physical needs: Hunger, comfort, thirst, etc.

GENDER, AGE AND CULTURE

- Experimental pain and gender differences
- Age responses (influenced by physiology and/or learning?)
- Culture and race differences in experimental pain studies

FACTORS THAT INFLUENCE THE DIMENSIONS OF THE PAIN EXPERIENCE

- EMOTIONAL-Affective-motivational
  - Fear (threat to well-being)
  - Genetics
  - Presence of co-morbid emotional disorder
  - Acute versus chronic

PERSONALITY AND PAIN

- Emotionality:
  - Anxiety – vigilance – fear
  - Depression (30-40% higher in chronic pain)
  - “Cognitive errors” in processing information about pain
  - Informational value of emotional states
  - The role of control
FACTORS THAT INFLUENCE THE DIMENSIONS OF THE PAIN EXPERIENCE

- COGNITIVE-evaluative:
  - Education and understanding
  - Sense of control
  - Iatrogenic issues and complications
  - Concern about disability and future
  - Acute versus chronic

FACTORS THAT INFLUENCE THE DIMENSIONS OF THE PAIN EXPERIENCE

- Behavioral-interpersonal:
  - Secondary gain
  - Support (or lack thereof)
  - Environmental context
  - Acute versus chronic
  - Culture

IS, THEN, WHAT PEOPLE THINK and FEEL ABOUT PAIN AS IMPORTANT AS PATHOPHYSIOLOGY?

TREATMENT OF PAIN: PSYCHOLOGICAL PERSPECTIVE

- Pain is a “mind-body” experience
- As pain becomes long-lasting, treatment MUST change; medication is not sufficient
- Pain treatment must address all aspects
  - Physical
  - Cognitive
  - Emotional
  - Behavioral

NON PHARMACOLOGICAL BEHAVIORAL TREATMENTS FOR PAIN

- Physical therapy modalities
- Physical exercise: Prescribed and routine
- Sleep improvement techniques
- Increase control and predictability
- Address nutrition, reduce caffeine, tobacco and alcohol use
- Build coping strategies

PAIN AND RELAXATION

- Relaxation techniques:
  - Progressive relaxation
  - Biofeedback
  - Hypnosis
  - Meditation, yoga, tai chi, etc.
UNDERSTANDING THE PAIN EXPERIENCE

**FALLACY:**
- The patient is the consumer
- The health care system is the resource
- (i.e., we know about the person’s pain, what it feels like and how to treat it)

**REALITY:**
- 80% of all treatment is self-care
- The patient is the resource
- The health care system is the support system
- (i.e., we can empathize but not experience another’s pain; we can teach what we know from research and practice, but research is about trends, not about individual responses – and its application is reliably inconsistent in clinical practice)

BEST CHOICES FOR TREATMENT OF PAIN

- Educate patients about pain management (not simply about physiology)
- Tailor treatments: Understand what is salient to each particular person
- Make treatment interdisciplinary

PAIN: Body-Mind

- “The mental cortex has to be reckoned with more or less as a factor for good or evil in all diseases of every origin, in all operations, and in all injuries…”
  - Sir Thomas Clausen, 1858