Biopsychosocial Approach to Pain

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Disease vs. Illness

- Disease - generally defined as an objective biological event
- Illness – subjective experience or self attribution that a disease is present – how a person and members of his/her family and social network perceive, live with, and respond to symptoms and disability
- The Biopsychosocial Model focuses on both disease and illness

"Would you describe the pain everyone else causes you as dull and throbbing or sharp like a knife?"
PSYCHOLOGICAL MODALITIES FOR CHRONIC PAIN

• Individual (Cognitive-Behavioral) Psychotherapy

• Family Therapy

• **Supportive** Group Therapy

• Relaxation Training - meditation, body scan, progressive muscle relaxation, guided imagery, biofeedback
Cognitive-Behavioral Therapy
Basic Principles

- *Thoughts* and *Beliefs* are central to how we feel
- i.e. cancer patients who attributed their pain to a worsening of their underlying disease experienced more pain than those with more benign interpretations

MAJOR PSYCHOLOGICAL ISSUE

TOTAL IDENTIFICATION WITH PAIN

“I AM MY PAIN!”
TREATMENT GOALS

- Meaningful Activity –
  “What **can** I do?”

- Distraction from pain

- Absorption in activities
PAIN vs. SUFFERING

What the patient tells him/herself about the pain

“How me?” “Why not me?”

Pain is inevitable. Suffering is optional
IN ORDER TO ESTABLISH A THERAPEUTIC ALLIANCE IT IS NECESSARY TO VALIDATE THE PATIENT’S LOSS!
COGNITIVE BEHAVIORAL PSYCHOTHERAPY

CHALLENGES THE PATIENT’S COGNITIVE DISTORTIONS!
OUR THOUGHTS HELP DETERMINE OUR *EMOTIONS*!
Typical Cognitive Distortions

- **Awfulizing** - exaggerating the significance of symptoms; i.e. “everything is crashing down”

- **Catastrophizing** - Focusing exclusively on negative aspects and turning them into a full-blown catastrophe; i.e. “I’ve ruined my life”

- **Overgeneralizing** - i.e. “nothing can help”

- **All-or-None Thinking** - i.e. “I can’t do anything”
Typical Cognitive Distortions

- **Selective attention** - focusing on the negative
- **Selective inattention** - not perceiving the positive
- **“Pity Party”** - i.e. “no one suffers as badly as I do”
- **Negative Predictions** - Jumping to (negative) conclusions - i.e. the test is positive, the prognosis is grave….
- **Mind Reading** - i.e. “the doctor’s (technician’s, nurse’s) expression is unhappy – it must be my tests results.”
CHALLENGING MALADAPTIVE THINKING

- What is the evidence?
- What are alternative views?
- Is the thinking distorted?
- What action can you take?

Cognitive and Behavioral Interventions for the Management of Chronic Neuropathic Pain in Adults – A Systematic Review


The first systematic review assessed 14 studies, including 3 randomized controlled trials; 3 controlled before-after studies; 7 uncontrolled before-after studies; 1 time series analysis. Selective metaanalysis of 4 studies. **Findings not consistent. Only 1 study had good methodological quality. No informative conclusions can be drawn.**
Gratitude Exercise

- Ask the patient what they would ask for in the order of importance if they were to suddenly become a blob of protoplasm – without any senses or appendages. Most will respond with what they already have; i.e. 5 senses, ambulation, family, and friends.
“Throwness”

• Martin Heidegger – (1889-1976) German philosopher who studied “fundamental ontology”; i.e. what does it mean to be? What does it mean to exist?

• What are we? “Dasein” – literally, the “to be there” of consciousness
“Thrownness”

- Dasein is “thrown” into the world with no choice about many of the most important parameters that affect our lives: when, where, and to what family we are born, financial circumstances, culture, intelligence, appearance, talent, etc.

- Chronic pain can be seen as a condition of “thrownness”

- Life has only 1 direction: “where do we go from here?”
THERE ARE ONLY THREE POSSIBLE CHOICES FOR MANAGING STRESSFUL SITUATIONS

• AVOID

• ALTER

• ADJUST
FIGHT OR FLIGHT RESPONSE

VS.

RELAXATION RESPONSE
Anger Expression and Pain: An Overview of Findings and Possible Mechanisms

Bruehl S, Chung OK, & Burns JW. J Behav Med 2006; 29:593

Direct expression of anger (anger-out) is associated with increased responsiveness to experimental and clinical pain stimuli and elevated chronic pain intensity (14 studies) in individuals with diverse pain conditions....
ANGER

Current definition: extreme or passionate displeasure

ETYMOLOGY

Latin: from strangle, choke, oppress
Middle English: affliction, trouble, grief, sorrow, regret
From the same root: angina, anxiety, anguish
ANGER

• Anger is a natural human emotion
• Anger begins in infancy with a baby’s cry when needs are not met
• There is nothing “wrong” with anger
• Anger is our emotion for perceived injustice
Fight Or Flight Response

↑ Metabolism
  Breathing
  Heart Rate
  Blood Pressure
  Blood Pumped
↑ Adrenalin - release of energy reserves
↑ Cortisol - heightened visual & auditory sensitivities
↓ Digestive Activity - energy to large muscles
↓ Arteries in arms & legs constrict (in preparation for injury)
↑ Blood clots more quickly - platelet aggregability & clumping
? Atherogenic
↑ Triggering of Myocardial Infarction
PERCEPTION

DANGER ......?
The Fight or Flight Stress Response Yesterday and Today
Type-A Behavior

Free Floating Hostility

Time Pressure
• In an early retrospective study, scores on the Ho scale (from an MMPI examination taken during medical school in 1954-59) were related to CHD incidence 25 years later among 255 graduates of the University of North Carolina Medical School (A, left panel) as well as to survival (B, right panel, showing worse survival for those above vs below the median Ho score).
Intense anger is a trigger for MI over a 2 hour hazard period. Approximately 1.5% of MIs, and likely a similar percentage of sudden cardiac death, are triggered by anger: ~ 30,000 MIs + ~ 30,000 SCD’s a year in the U.S.
ANGER CAN TRIGGER SUDDEN CARDIAC DEATH!

62 patients with Implantable cardioverter defibrillators (ICDs) asked to recall a recent situation in which they were angry or aggravated. T-wave alternans (TWA), a measure of the heart's electrical stability, was analyzed during anger recall. Patients followed for a mean of 37 Months. Those with higher levels of anger-induced TWA were more likely to experience arrhythmias requiring ICD termination, a heightened risk of up to ten times that of other patients.

Lampert et al, Journal of the American College of Cardiology 2009 53: 774
• 25 studies investigating CHD outcomes in healthy populations. Anger and hostility were associated with increased CHD events. HR=1.19; 95% CI, 1.08-1.42, p=0.008. 1.

• 19 studies in CHD populations, anger and hostility were associated with poor prognosis. HR=1.24; 95% CI, 1.08-1.42, p=0.002
“Anyone can become angry, that is easy. But to be angry with the right person, to the right degree, at the right time, for the right purpose, and in the right way - this is not easy.”

Aristotle (384 - 322 B.C.)
The Nicomachean Ethics
“There is no passion that so shakes the clarity of our judgment as anger....Things truly seem different to us once we have quieted and cooled down.”
FREUD – The Psyche Has Two Drives

- Sex (Eros)
- Aggression (Thanatos?)
“…is the dark, inaccessible part of our personality…[it is] of a negative character….We call it a chaos, a cauldron full of seething excitations…a striving to bring about the satisfaction of the instinctual needs [sex and aggression; Eros and Thanatos….Logical laws of thought do not apply to the id….[There is} no recognition of the passage of time…."

Sigmund Freud
PASCAL’S HYDRAULIC PRINCIPLE
(1623-1662)

The pressure applied to a confined liquid is transmitted equally in all directions, regardless of the area to which the pressure is applied.
Is ANGER a

“Substance?”

an “Energy?”
Is anger a ‘substance?’
an ‘energy?’

- Pent up
- Built up
- Bottled up
- Getting steamed
- “hold on” to your anger
- Stoke your anger
- Leaks out
- Let “it” out
- Let someone have “it”
- Pop off
- Pop your cork
- Explode in anger
- Blow up
- Blow your top
- Blow your stack
- Blow off steam
- Explosive rage
- Volcanic rage
DOES ANGER ACCUMULATE?
If you believe that anger “builds up,” and that you will develop high blood pressure, or have a stroke or heart attack if you don’t express it, then….YOU WILL!
Once an Angry Word Has Left Your Lips You Are No Longer Its Master!
Expressing Anger in an Angry Way Makes a Bad Situation… WORSE!
ONLY IN NEW YORK...
We all have the capacity to manage our anger!

Think about being angry at a
- Judge
- Police officer
- Boss or Supervisor
- Teacher
- Someone much bigger than yourself
- Anyone who is in a position to do you harm
Anger Management

Injustice  Incompetence
unfair  immoral  selfish
stupid  unqualified  lazy

Can you spot the bait?
Don’t bite the hook!

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“It’s for you….”
FREQUENTLY UNRECOGNIZED NEEDS THAT CAUSE ANGER

• LACK OF RESPECT (UNDERSTANDING)
• TERRITORY
ANGER MANAGEMENT
TAKE HOME MESSAGE

DON’T BITE THE
“HOOK”
FILL YOUR
NEED!
GETTING CONTROL OF YOUR ANGER

A Clinically Proven, Three-Step Plan for Getting to the Root of the Problem and Resolving It

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WITH DONNA BLASS