

**Unraveling the  
Relationship  
between  
Anger and Chronic Pain**

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**Objectives are to describe:**

- 1) the relationship between the concept of anger in regard to the concept of chronic pain
- 2) the difference between state & trait anger
- 3) the impact of anger management styles on the experience of chronic pain
- 4) interventions used to improve the management of chronic pain through managing associated anger

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**Definitions**

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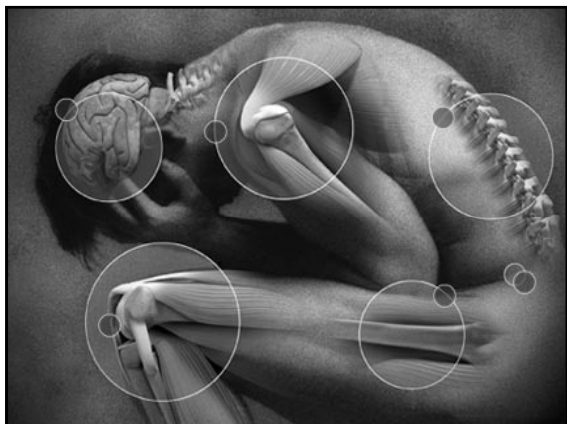
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**Pain**

- **Pain is:**
  - subjective & multiphasic experience with an intensity only determined by the experiencing person  
(McCaffery & Pasero, 1998)
- **Acute Pain**
  - a symptom with diagnostic significance & beckons for intervention  
(Brand, 1997; Melzack, 2005)
- **Chronic Pain**
  - pain that lasts longer than 3 months
  - pain that lasts beyond healing period

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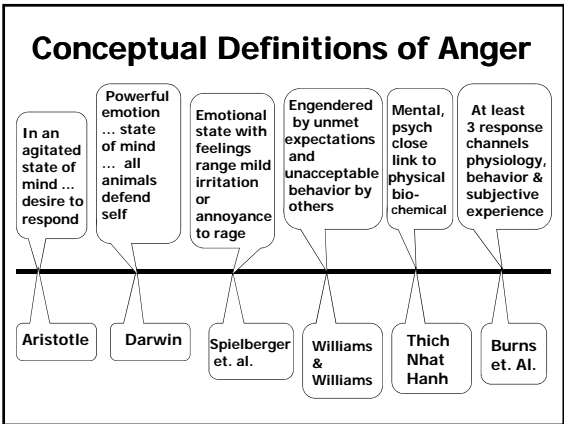
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### Anger

- is a strong feeling of objection or discontentment with a person or situation
- can be synonymous with feelings of annoyance, irritation, rage, resentment, fury, irritation, antagonism or being incensed or maddened  
(Laird, 1974; Spielberger et al, 1983)
- response to expectations of self or others not being met or behavior of self or others perceived as being unacceptable or unsatisfactory  
(Williams & Williams, 1993)

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### State and Trait Anger

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## State Anger

### State Anger (SA):

a psychobiological emotional state or condition that consists of subjective feelings that vary in intensity from tension, annoyance and irritation, to fury and rage with concomitant activation or arousal of the ANS

(Spielberger, 1983; Spielberger, 1995)

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## State Anger Evoked

- S-Anger varies over time as a function of situations that induce anger.
- Circumstances that can evoke S-Anger:
  - being attacked
  - being treated unfairly
  - perceived injustice
  - frustration r/t barriers to goal attainment

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## Trait Anger

### Trait Anger (TA):

the individual **frequency** and **intensity** with which the person perceives experiences as producing angry feelings & with which SA occurs over time

(Spielberger, 1983 & 1999; Spielberger, et al, 1999)

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## Trait Anger Sub-types

- Angry Temperament (T-Anger/T)
  - general tendency to experience and express anger at random
  - requires little or no explicit provocation
  - "hot headed person"
- Angry Reaction (T-Anger/R)
  - individual variations in the temperament to express anger when criticized or treated unjustly

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### Trait Anger and Chronic Pain

- Moderately effective in predicting arthritic health (Coates & Pretty, 2003)
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## Relationship of Anger and Chronic Pain

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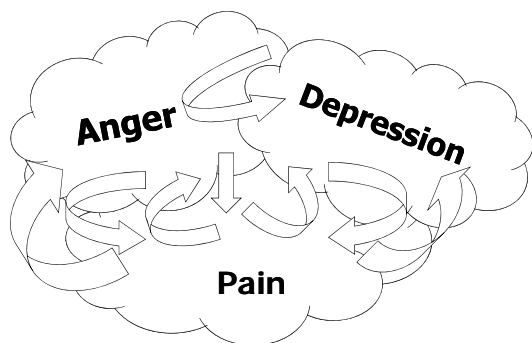
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### An Interconnectedness



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### Relationship of CP & Anger

- Complex
- Little known
- Anger Management Styles
- Potential important component
- Treatment focus on symptom not cause!

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### Theoretical Models



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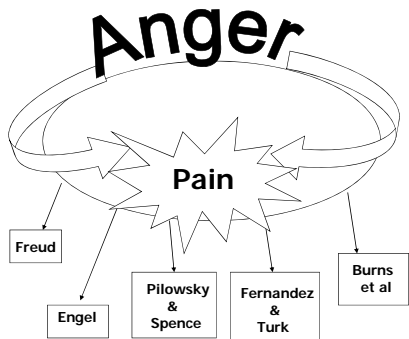
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### Theoretical Links of Anger & Pain



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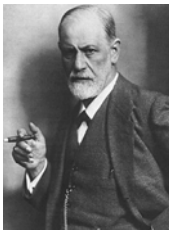
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### Freud

- Linked anger with aggression
- Believed patients who repressed angry feelings and as a result were prone to pain or hypertension (Burns et al, 2008)
- Believed when anger could not be managed appropriately it became internalized, resulting in psychosomatic illnesses including pain

(Spielberger & Reheiser, 2003; Spielberger, Reheiser, & Sydeman, 1995)




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### Engel, Alexander & Funkenstein

- Engel described people who restrain or suppress anger as *pain prone patients*.
- Implication that suppressed anger caused pain.
- In alliance with Alexander, Funkenstein depicted anger inhibition as "a process of directing anger inward toward the self."

(Burns, Quartana, & Bruehl, 2008)

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### Pilowsky & Spence

- Patients with CP did not report greater frequency of feeling angry but, they did endorse significantly more inhibition of anger.
- PLWCP reluctant or unable to express anger toward others.
- As a group, PLWCP did not experience anger more frequently than the control group but, PLWCP didn't respond as well to conventional treatments.
- Cautiously concluded: unique qualities of each individual must be considered when assessing the relationship between pain and anger.
- Suggested the prevalence of suppressed anger was greater in PLWCP.

(Burns, et al., 1996). Keefe and colleagues (2001)




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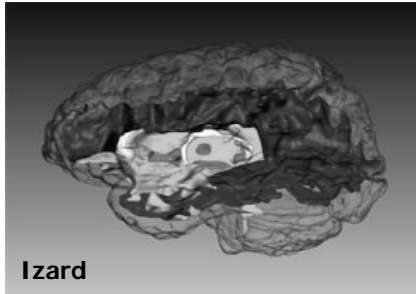
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### Theoretical Links of Anger & Pain



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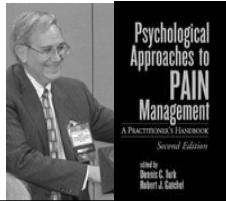
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### Fernandez and Turk

- Proposed the role of anger in negative emotions as comprising an affective component of chronic pain.
- Suggested PLWCP “internalize their anger and indirectly express it through pain”.
- Referred to anger as being “one of the most salient emotional correlates of pain.”

(Fernandez & Turk, 1995, p. 165)



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### John Burns and Colleagues

- Suggested *anger repression* occurs when angry feelings are totally denied; there may not be conscious awareness.
- Effect of anger and anger management style on muscles
- Catecholamine-sensitive pain mechanisms w/ anger-out & relationship of suppressing angry thoughts with pain intensity
- AO from psychological, genetic, gender, endogenous opioid, & behavioral perspectives

(Bruehl, Burns, Chung, Ward, & Johnson, 2002; Bruehl, Chung, & Burns, 2006; Burns, 2006; Burns, Bruehl, & Quartana, 2006; Burns, Quartana, & Bruehl, 2008; Burns, Quartana, Gilliam, Gray, Matsuura, Nappi & Wolfe, 2008)



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### Burns and Colleagues

- Concluded high trait anger-out seems to be involved in heightened response to pain stimuli, although the relationship is not clear.
- Subsequent research indicated the quality of anger-out is related to opioid dysfunction, but further research is needed.

(Bruehl, Chung, Burns, & Diedrich, 2007)

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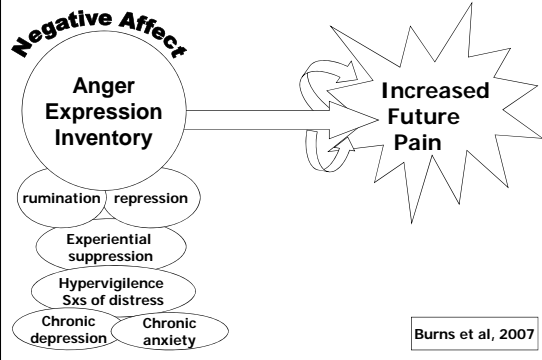
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### Theoretical Links of Anger & Pain



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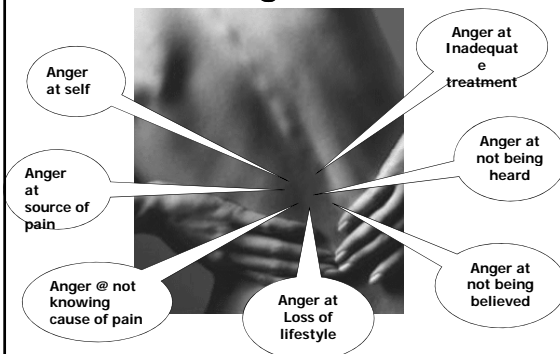
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### Links of Anger with CLBP



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# Anger Management Styles

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**Trait & State Anger Management Styles**

Trait Anger Management Style:  
"the tendency to express or inhibit anger across situations"

State Anger Regulation:  
"the regulation of anger in a given situation"

(Burns, et al, 2008, p.898)

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**Anger Management Styles**

- **Anger Expression (AX)**
  - Anger Expression-In (AX-I)
  - Anger Expression-Out (AX-O)
  - (AAX-I and AX-O)
  
- **Anger Control (AC)**
  - Anger Control-In (AC-I)
  - Anger Control-Out (AC-O)

(Spielberger, 1999)

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### Anger Management Styles

- **Anger Expression-In (AX-I)**
  - tend to suppress feelings of anger rather than expressing them either physically or verbally
- **Anger Expression-Out (AX-O)**
  - "frequently express anger in aggressive behavior directed toward other persons or objects in the environment;" may be physical expression or verbal (sarcasm, threats, insults)
- **AX-I and AX-O**
  - alternate in different situations

(Spielberger, 1999)

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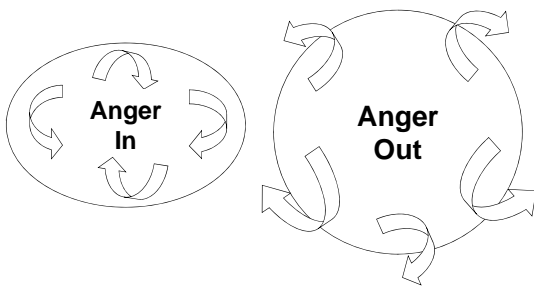
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### Anger Expression Styles



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### Anger Control

- **Anger Control (AC-I)**
  - work hard to control anger
  - when high AC-I score is combined with low AX-O there is risk for developing medical issues. (Spielberger, 1999)
- **Anger Control-Out (AC-O)**
  - tend to work hard to monitor and avoid expressing anger outward (Spielberger, 1999)

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## Anger Rumination

- AR is passively but repetitively thinking about the emotion of anger or the mood of anger.
- By contributing to the internal expression of pain or AX-I, proposed as a potential salient feature in the relationship of anger with CP.

(c.f. Burns, Quartana, & Bruehl, 2008; Linden, Hogan, Rutledge, Chawla, Lenz, & Leung, 2003; Stimmel, Crayton, Rice, & Raffield, 2006)

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## CP & Anger Rumination

- Anger Rumination involves continually revisiting the angry feeling or event.
- Burns et al (2008) suggested AR possible key component in the relationship between CP & anger.
- Potential salient feature of AX-I.

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## Possible Interventions

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### Need for Intervention

- No one intervention highly effective for CP.
- Pain is a multi-dimensional experience.
- Individualized coping strategies.
- Analogous to peeling an onion.

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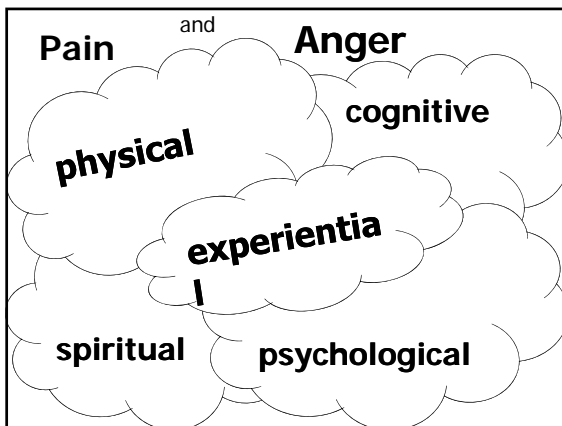
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### Cognitive Behavioral Interventions

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### Individual Interventions

- Anger Management Education
- Self help books
- Music therapy
- Psychotherapy
- Negative Thought Reduction
- Relaxation

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### Group Therapies

- Education courses
- Williams & Williams Anger Management
- Process Group Counseling
- Social Skills Training
- Couples Therapy
- Cognitive Relaxation
- Relaxation
- Stress Inoculation Training

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## Mindfulness Meditation

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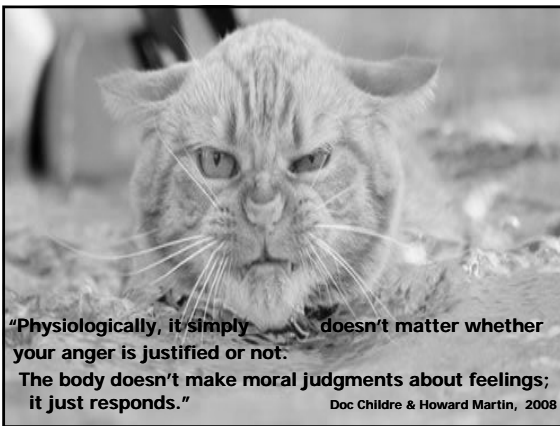
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## Loving Kindness Meditation

- Carson et al (2005) have studied use of the Loving Kindness Meditation (LKM) intervention to transform anger among persons w CLBP.

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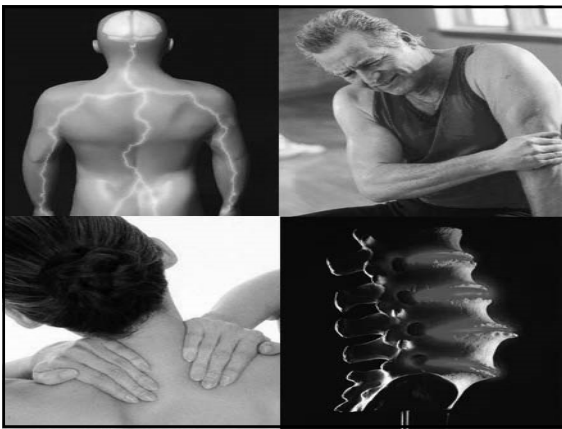
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Relationship of CP & Anger with the  
Influence of Rumination & Gender  
Study

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