Psychological Assessment of Risk Factors in the Development and Maintenance of Chronic Pain

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Disclosures . . .

I have no ties or connection with any industry or commercial venture pertaining to this presentation.

(Frankly, no one has even offered me money.)
Learning objectives...

At the end, participants should be able to . . .

- Identify the dimensions of chronic pain frequently influenced by psychosocial factors
- Identify the premorbid and comorbid psychosocial risk factors that often influence the development and maintenance of chronic pain
- Speak even more eloquently about the need for an interdisciplinary approach to the treatment of chronic pain
Pain is an Emotionally Transforming Experience . . .

- When the IASP arrived at a definition of pain that included the *emotional experience*, as well as the *unpleasant sensory experience associated with actual or potential tissue damage*, they were acknowledging the impact of pain upon our human capacity for sentience and reflection and, by extension, suffering.

- More than merely an unpleasant sensory experience, chronic pain can come to affect the whole individual by becoming, itself, the source of a broad range of stressors.


The Need for an Interdisciplinary Approach to Treating Chronic Pain

- Chronic pain will always require some level of adaptation and adjustment and can, in many cases, interfere with one’s work and livelihood, recreational pursuits, relationships with family and friends, and sexual intimacy.

- Through the introduction of associated psychosocial stressors and more enduring affective changes, it can also influence one’s *self-esteem*, and the ways in which one views oneself as a *man or woman, husband or wife, father or mother, friend, member of society, and spiritual being*.


The Critical Question . . .

Why does one patient develop chronic pain and face disability, while another—with seemingly the same injuries, extent of tissue damage, and quality of medical care—recovers and returns to normal activity, following a brief convalescence? *

It is frequently the mental health perspective of the multidisciplinary approach that can offer the most reasonable and, more importantly, functional set of hypotheses.


A qualified answer to the critical question . . .
the influence of psychosocial factors

- Purely physiological explanations cannot account for the impact of pain in a patient’s life.
- Exclusive reliance upon medical interventions may not result in relief.
- The quality, intensity, and duration of pain are influenced by psychological and social factors.
- The experience of chronic pain ultimately comes to be the product of conflict between a sensory stimulus and the whole person.


Pain may not be psychological in origin, but how we respond to it always is.

The Biopsychosocial Model Applied to Chronic Pain: Pain/Stress Cycle
Chronic Pain/Stress Cycle

- Increased Pain
- Anxiety
- Lack of enjoyment
- Worries about employment
- General health worries
- WorkCover worries
- Medication worries
- Family and relationship worries (sexual concerns)
- Financial worries
- Doctor’s and hospital visits (anger, frustration)
- Not Coping
- Sleeping Problems
Given the importance of how we respond to pain . . .

It would appear critical to discern as much as possible about the person in pain.
The Chronic Pain Personality

- Early observations of chronic pain through the lens of psychoanalytic theory suggested the idea of certain pain prone personalities.

- This led to the idea that tendencies toward the development of chronic pain could be “profiled.”

- Lipsitt’s (1970) “Medical and Psychological Characteristics of ‘Crocks’”—who wear the somatic cloak of depression, adopt a long-suffering attitude, and express the wish to be “fixed”

Other Pain Prone Models

- Gentry’s (1977) pain prone personality—when an injury provides an acceptable means of depending on others

- Stephanos (1979) discussed the influencing factors of alexithymia and somatization

- Blumer & Heilbronn (1982) described the “solid citizen” presentation of some pain patients and discussed the influences of models of invalidism and a history of trauma or abuse

- Self psychology (psychoanalytic theory) focused on disturbances in the capacities for empathy and self-soothing
Eventually, profiling gave way to the more empirically and statistically-based idea that certain psychosocial risk factors tend to be associated with poor recovery from injury and acute pain and may predispose the individual toward the development of chronic pain and disability.
Comorbid Risk Factor

(1) pain duration (6 mos WC < 50%, 12 mos WC < 10%)

Comorbid/Premorbid Risk Factors

(2) history of major psychopathology

(3) history of substance abuse


Incidence of Concurrence between Psychiatric Dx and Chronic Pain

- Major Depression 57%
- Alcoholism 40%
- Opioid Dependence 19%
- Somatization Disorder 16%
- Panic Disorder 16%
- 3 or more Phobias 13%
- Conduct Disorder 13%
- No Diagnosis 13%
- PTSD 33-66%
- Personality Disorder 33-60%

From Cassem NH (6/4/04), Psychiatric Care of the Medically Ill, MGH/HMS CME Course.
Premorbid Risk Factors

(4) job dissatisfaction

(5) history of prolonged or problematic recovery from previous experiences of pain or illness

(6) history of psychological or physical trauma (associated with injury)

(7) history of psychological, physical, or sexual abuse (in childhood)

(8) a pattern of reduced activity, excessive pain behaviors, or overly solicitous or punitive supports

(9) negative beliefs or cognitions about the meaning of pain

(10) nature of the personal explanatory model (cosmology)

from Eimer BN, Freeman A, 1998; Wootton, 2004; Borkum & Wootton (est. October, 2016).
Preparing for Psychotherapeutic Intervention: Assessing Readiness for Change (Transtheoretical Model)

1. Precontemplation
2. Contemplation
3. Preparation
4. Action
5. Maintenance

Psychosocial Risk Factors as Predictors of Negative Outcome in Treatment

(1) job dissatisfaction

(2) reduced activity, excessive pain behaviors, overly solicitous or primitive supports

(3) negative beliefs about the meaning of pain

(4) anger-proneness: a sustained attitude of hostility and alienation

(5) maladaptive coping strategies

(6) ongoing litigation

from Eimer BN, Freeman A, 1998; Wootton, 2004; Borkum & Wootton (est. October, 2016).
Evaluation criteria for implantable devices ...

- **Motivation** – is the patient motivated to learn about the procedure
- **Readiness for Change**
- **Cognitive and Intellectual Capacity**
- **Adequate Psychosocial Support** – involvement of family and friends
- **Level of Psychological Adjustment** – will psychiatric symptomatology pose an inordinate complication to long-term adjustment or to the functioning of the device?
- **H/O Substance Abuse**
- **Level of Stress-Reactivity** – ability to manage stress well, including unexpected complications; tendencies toward somatization
- **H/O Trauma** – especially in the context of an invasive procedure
- **Grounded Etiology (Meaning) and Presentation** – does the patient’s pain make sense to him or her, to his or her providers
- **Reasonable Expectations Regarding Outcome**

Multidisciplinary rounds is the beginning of and basis for the interdisciplinary understanding of the patient critical to comprehensive treatment planning, monitoring, and revision, eschewing a poorly planned sequential application of treatments and promoting a comprehensive and synergistic approach to care.
Individual Psychotherapies Applied to Chronic Pain Patients . . .

- **Cognitive Psychotherapy** — to challenge maladaptive cognitions and reframe maladaptive thinking and core beliefs

- **Milieu OBT** — all providers and staff intervene to extinguish pain behaviors and challenge secondary gain

- **Behavioral Therapy** — to acquire skills at pacing and self-soothing, such as elicitation of the Relaxation Response (often coupled with biofeedback, active or passive)

- **Hypnotherapy** — for elicitation of the RR or, more controversially, for analgesia

- **CBT/DBT** — cognitive-behavioral/dialectical behavioral therapy

- **EMDR** — cognitive restructuring/affective interference

- **Supportive Psychotherapy** — to bolster adaptive defenses, self-esteem, and ego functioning

- **Psychodynamic Psychotherapy** — to uncover and address conflicts that leave the patient feeling stuck and his or her pain, intractable
The prime psychiatric algorithm applies . . .

- Step 1: Try something.
- Step 2: If that doesn’t work, try something else.
- Step 3: Repeat as needed.
Ellen: A cognitive therapy case . . .

- 32 yo single woman, referred to the AWPC, one year after developing CDH
- Medication trials, PT, injections of little benefit
- Once or twice a week, forced to spend several hours in a dark room to manage pain and nausea
- Working as an editor-in-training at a publishing firm but faced with losing her “dream job” because of absenteeism
- Fearing she would “lose everything,” she began to overuse her headache medication, ultimately developing rebound headaches
- Trigger: Just thinking about her busy schedule would lead to anxiety and hypervigilance to pain cues, as she asked herself, “What if I get a headache and can’t get everything done?”
Identifying automatic thoughts and core beliefs . . .

- Essence of the cognitive model: Much of our emotional distress and self-defeating behavior is simply based on inaccurate thinking.
- Once our attention is drawn to the relationship between our distress and these upsetting thoughts, we can test their value to see whether they form an appropriate basis for our emotions, actions, and reactions.
- Automatic thoughts: “Oh, no, here it comes again...the rest of the day is ruined.”
- All too often, her perception of her pain would quickly move from just noticeable all the way to unbearable, leading her to flee her office in tears.
- In Ellen’s case, certain core beliefs tended to complicate her situation even further.
- These underlying views of herself—her self-worth and self-esteem—led her to become even more vulnerable to triggering events and automatic thoughts.
Cognitive restructuring: Developing alternative responses . . .

- Once patients are mindful of the stress-pain cycle and the influence of automatic thoughts and core beliefs, challenging those patterns and developing alternative response becomes the focus of treatment.

- Alternative response: “I seem to be getting a headache, but it’s not bad now, and I can continue working, while I see what happens . . . If I get a headache, I’ll wait and see what happens . . . If it’s not bad, I’ll continue to work . . . If it becomes severe, I’ll leave but take some work home with me.”

- Within a few weeks, Ellen reported that her pain seemed more manageable, she was using less medication, and she was clearly less distressed and overwhelmed.

- Addressing her core beliefs was more critical, however, because these were more influential to her motivation and identity.

- The operative core belief, in this case, was the patient’s long-held attitude that she was undeserving of her success—overshadowing the reality of her hard work and comparative success.
Complementary and integrative health options for treatment . . .
Not all complementary or integrative techniques are of equal value or empirical validity . . .
Efficacy of biofeedback in the treatment of migraine and tension-type headaches...


Efficacy of *biofeedback* in the treatment of migraine and tension type headaches... 

Biofeedback is an extremely costly and time-consuming treatment modality that, in our study, provided no additional benefit when compared to simple relaxation techniques alone, in the treatment of migraine and tension type headaches in adults.

Isolating the factors to study…

- Pain intensity
- Economic impact
- Disability
- Functional capacity
- Coping and beliefs about pain
- Concurrent psychopathology
- Concurrent substance abuse/dependence

Case #1: David T

- 42 year old married man with 3 adolescent children
- Referred 8 months after a work-related head injury, post-concussion syndrome
- Escalating headache pain intractable to conservative and procedural interventions
- His physicians support his claim to disability, but worker’s comp insists he can return to “light duty”
- Withdrawn, irritable, depressed, with marital and familial conflicts
- Dysfunctional thoughts: “I’m never going to get better…There’s nothing I can do to help myself…I won’t be able to take care of my family…I’m a complete failure.”
- Dynamic Formulation: Interaction with an adversarial system resulting in “learned helplessness”
Case #2: Carrie Z

- 26 year old, single graduate student, living with her parents
- Primarily tension-type, cervicogenic headache, since the age of 12, with multiple orthopedic and neurological work ups
- Acknowledged stress triggers and experiences exacerbations during examination periods and thesis writing
- Stated, “I just can’t get relaxed…I’ve tried massage, yoga, and acupuncture…Nothing seems to take the tension out of my neck and shoulders.”
- Dynamic Formulation: Learned patterns of tension maintained rigidly within the family triad.
- Treatment: Relaxation Response with biofeedback monitoring
Case #3: Anna K

- 37 year old, separated woman, who developed chronic daily headache in the aftermath of “abandonment” by her spouse
- Multiple failed treatment efforts, both medically and behaviorally
- Patient denied any depression and was convinced that her pain was unrelated to her psychosocial circumstances, but she agreed to enter psychotherapy to discuss her rising anxiety about lack of relief and increasing disability
- During psychotherapy, she disclosed a history of childhood emotional trauma, involving her father’s “punishing” her by continually threatening to leave…she would, in turn, become depressed and develop episodic pain in an attempt to get him to stay
- Dynamic Formulation: Once the symbolic recapitulation was interpreted in psychotherapy, the patient’s pain began to subside, as the focus of treatment shifted and the conflict displaced onto the somatic sphere returned to its affective origin
There is only one cardinal rule: One must always listen to the patient.

—Oliver Sacks