The Role of Psychology and Psychological Approaches in Pain Management

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Objectives

- Discuss the role of psychology in the development and maintenance of chronic pain
- Understand the role of mental health providers in chronic pain management
- Review the basic approaches and core components used by psychologists in pain treatment
Highlights need for:
- “...timely access to patient-centered care that meets their biopsychosocial needs and takes into account individual preferences”
- Clinicians to receive better training on “biopsychosocial characteristics” relevant to pain
- “...improving self-management abilities among those with pain” to “help affected individuals improve their knowledge, skills, and confidence to prevent, reduce, and cope with pain”

Biopsychosocial Model
- Pain is a subjective experience
- It is a physical sensation, but it is an unpleasant and therefore emotional experience
- Pain impacts and is impacted by various factors
- Necessary to address all to impact the development, maintenance, and impact of chronic pain
Psychological Factors and Pain

- A mild degree of depression, anxiety, and irritability is a *normal* psychological response to pain.
- 30-40% of those with chronic pain in Primary Care fall into the subgroup with significant psychiatric comorbidity.
- 50-75% in pain specialty settings with major depression or anxiety disorder.

Bair, 2003; Wasam, 2004; Gore, 2005

Lit Review: What We Know

- Anxiety
  - Estimated current or 12-month prevalence of anxiety/anxiety disorder exceeds 50% among individuals with fibromyalgia, temporomandibular joint disorder, and chronic abdominal pain; 35-50% in migraine, arthritis, pelvic pain.
  - Individuals with migraine 2-3x more likely to be diagnosed with GAD, panic d/o, PTSD, agoraphobia vs those without.

Arnold et al, 2006; Monteiro et al, 2011; McWilliams, Cox, Enns, 2003
**Lit Review: What We Know**

- Depression
  - Estimated current or 12-month prevalence of high levels of depressive symptoms or a mood disorder exceeds 50% among individuals with fibromyalgia, TMD, chronic spinal pain, and chronic abdominal pain; 20+% in migraine, arthritis, pelvic pain
  - Depressed individuals 3x more likely to develop LBP compared to non-depressed individuals
  - **Bidirectional** - Pain increases symptoms of depression and preexisting depression adds to the risk of pain

  Arnold et al, 2006; Manfredini et al, 2010; Demyttenaere et al, 2007; Currie & Wang, 2005

**Lit Review: Outcomes**

- Surgical Outcomes
  - Most useful predictors of poor outcome:
    - Presurgical somatization
    - Depression
    - Anxiety
    - Poor coping
  - One or more psychological factors associated with poor treatment outcomes in 92% of studies review

  Celestin, Edwards, Jamison, 2009
Lit Review: Outcomes

- Outcomes Impact
  - Psychopathology and extreme emotionality negatively predict response to treatment
  - Maladaptive beliefs and pessimistic expectations are associated with poorer functional outcomes

  Jamison & Edwards, 2011; Boersman et al, 2005

Role of Pain Psychology

- Like other chronic health conditions without a cure (e.g., diabetes), focus on changes that can be made to positively impact quality of life and functioning
- MD/DO/PA/NP focuses on medical optimization
- PT/OT/KT focuses on physical reconditioning
- Pain Psychologist focuses on lifestyle changes that include critical behavioral and cognitive modifications
Role of Pain Psychology

- Ultimately, the function is to increase self-efficacy in patients by increasing independently managed skills to improve chronic pain coping.
  - Facilitate self-management

- Each individual makes choices each day that impact their experience with pain and their quality of life.

- Assist in reacting to pain in a more helpful manner... can actually decrease the intensity of pain as well as the deleterious impacts.

Goals of Treatment

- Life gets **BIGGER** so pain feels **SMALLER** by comparison:
  - Teach patients to expand their lives and react to pain differently.
  - Pain may stay the same.

Murphy, JL 2013
Turn Down the Volume on Pain

- Understand what alters pain experience/perception

Pain Psychologists Help Patients Understand

- Factors that “turn up” the volume on pain
  - Negative emotions
  - Negative thoughts
  - Focusing attention on pain
  - Kinesiophobia/lack of movement

- Factors that “turn down” the volume on pain
  - Positive emotions
  - States of relaxation
  - Distraction away from pain
  - Physical activation
Approaches

- CBT-CP
  - Cognitive Behavioral Therapy for Chronic Pain
- ACT-CP
  - Acceptance and Commitment Therapy for Chronic Pain
- Mindfulness
- Biofeedback

- CBT-CP
  - Most empirically supported psychological intervention for chronic pain
  - Focuses on interaction between thoughts, feelings, and behaviors that contribute to development and maintenance of chronic pain experience
  - Follows ideas that cognitive appraisal mediates behavior and that individuals have the ability to adjust maladaptive thoughts and change behaviors
Provide brief overview of CBT-CP model

**CBT-CP Treatment**

- **ACT-CP**
  - Focuses on improving functioning by increasing psychological flexibility, or the ability to act according to values even in the presence of pain
  - Targets ineffective control strategies and experiential avoidance; instead encourages people to stay in contact with unpleasant emotions, sensations, and thoughts
  - Negative pain-related thoughts are targets for exposure rather than attempts to change their unhelpful content
 Approaches

- **Mindfulness**
  - Grounded in acceptance (like ACT) of focusing on “what is”
  - Bringing awareness to “here and now” without judgment
  - Characterized by ability to disidentify from one’s own thoughts and therefore view experience with greater clarity

 Approaches

- **Biofeedback**
  - Teach person to recondition their responses so that they gain control over their physiological system allowing them to minimize symptoms
  - Combines technology and various forms of relaxation techniques
  - Reduce the adverse effects of chronic stress
**Treatment Objectives**

- Improve quality of life by:
  - Reducing the negative impact of pain on daily life
  - Improving physical and emotional functioning
  - Increasing effective coping skills for managing pain
  - Reducing pain intensity

**Getting Started**

- Assessment and Evaluation/Clinical Interview
  - It is more important to know what kind of person has a disease than what kind of disease a person has.
    ~Hippocrates

- Measurement/Outcomes
  - Evaluation of pain-related history with a highlight on current functional impairment
    - Note means of coping generally – Passive? Active?
**Core Components Across Approaches**

- Pain Education
- Activities and Pacing
- Relaxation Training
- Role of Cognitions
- Managing Flare-ups/Future Planning
- Other
  - Sleep hygiene; Stress management; Assertive communication

**Core Components: Education**

- Provide direct information about pain that may not be communicated in as much depth with a physician
- Pain Education Basics
  - Acute versus chronic pain
  - Hurt versus harm
  - Fear-avoidance, kinesiophobia
  - Factors that impact pain experience
  - Chronic pain cycle
**Hurt versus Harm**

- Help Veterans to develop a distinction between hurt and harm

**Hurt**
- Physical sensation, feeling
- Subjective
- In acute pain, hurt does equal harm

**Harm**
- Injury, damage, illness
- Objective
- In chronic pain, hurt does not equal harm

**The Fear Factor**

- The *fear-avoidance model* helps explain how psychological factors impact the temporal course of pain and provide a framework for a range of behavioral approaches

- Fear develops in response to negative cognitions exaggerating the potential threat of pain and pain-related health information... may lead to catastrophizing

- Fear serves to focus attention on pain and associated symptoms, leading to a state of hypervigilance and avoidance of activities
Chronic Pain Cycle

Core Components: Activation

- Stress the importance of engaging in safe movement and exposure to feared stimuli (i.e., pain or re/injury) through activities
- Gradual exposure to increased activity such as walking
  - Seek to reduce kinesiophobia, avoidance and recondition
- Identification and involvement in pleasant activities
  - Seek to increase positive distraction, meaningful activity

Murphy et al, 2014
**Core Components: Pacing**

- Incorporated into all areas of functioning
- Focus on avoiding overactivity as well as underactivity
- Approaching life in a thoughtful, planned manner so that patients are able to work smarter not harder
  - Applied to physical and leisure activities
- Increase efficiency, improve physical state, decrease negative emotional consequences

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**Overactivity Cycle**

PACING ACTIVITIES

Some people are prone to "pushing through" pain in the name of accomplishing a task and will not stop until it is complete, while others may be preoccupied with fear about harming themselves and avoid activity altogether. Sometimes those with chronic pain see a "good pain day" when they are feeling better to try and complete one or more rigorous activities that have fallen by the wayside. The next day, they wake up with increased pain levels and rest for a day or two to recover. This Overactivity Cycle may happen on a recurring basis and can lead to negative consequences such as increased stress and anxiety, decreased efficiency, increased self-esteem, and avoidance of any activity.

Murphy et al, 2014
Veteran "pushes through" the pain

The pain gets so severe that it results in extended rest ("crash and burn")

Veteran pushes again to make up for lost time

With pacing, the patient keeps a steady pace to avoid pain flares

Core Components: Relaxation

- Chronic pain as chronic stressor – seek to decrease muscle tension, negative physiological reactions to pain

- Two basic components
  - A mental focusing tool
    - On breath, areas of body, image, etc.
  - A quiet, aware, nonjudging attitude allowing whatever happens to happen; gently directing your mind back to your point of focus when you notice “mental chatter”
Relaxation Options

- Deep/diagrammatic breathing
- Progressive Muscle Relaxation
- Guided Imagery/Visualization
- Autogenic training
- Meditation
- Mindfulness
- Body Scan

Core Components: Cognitions

- Approach to cognitions varies across treatments but all want to reduce negative impact of thoughts on behaviors, feelings
- In CBT, highlight common unhelpful cognitions such as catastrophizing
  - Believing something is the worst it could possibly be
  - Magnification and exaggeration; rumination and hypervigilance; helplessness and pessimism
  - Most important, highly correlated with pain-related distress/disability
Core Components:
Future Planning

- Want a plan with concrete details regarding anticipating obstacles and specific ways to intervene
- Appropriate use of medications as one tool for management is often part of the conversation
- Management of flare-ups is essential as it is when many get derailed and lose sight of the skills that they have to self-manage

Flare-Ups

- Important to identify pain triggers and warning signs
  - These may relate to other areas covered such as a lack of pacing, relaxation, or cognitive coping skills
- Even if signs cannot be identified (some report that flares “come out of nowhere”), patient still need a plan for management
  - Pain Flare Toolkit
    - Heat, TENS, relaxation, pacing, hobby/leisure
Other Core Options

- Sleep Hygiene
  - Basic education and recommendations
- Assertive Communication
  - Very important with population given issues with frustration/anger and social systems (e.g., family, healthcare)
- Stress Management
  - Can be combined with relaxation or addressed separately

What Does a Pain Psychologist Do?

- Pain psychologists provide significant amount of education around chronic pain as well as specific skills/approaches in how to independently manage pain more effectively
- Goal is to reduce the suffering and negative functional impact of chronic pain
What Does a Pain Psychologist NOT Do?

- Focus on mental health conditions outside their connection to pain management
- Follow patients for an unlimited time/act as primary mental health provider

Appropriate Referrals

- Understanding the role and function of mental health intervention for those with pain should make referrals more appropriate
- General mental health issues should still be directed to a mental health clinic/provider
- Avoid “dumping” if pain psychologist is not appropriate direction for the patient at this time
  - Pain psychologist may help individual better understand the recommended treatment options and why they make sense
What To Tell Patients About a Referral

- How do you talk about pain psychology with patients?
- However brief, the information that a physician conveys about a referral is critical for developing:
  - Buy in
  - Realistic expectations
  - Successful outcomes

What To Tell Patients About a Referral

- Your pain is real and has many factors that impact it
- We are not trying to determine mental illness
- This referral will be helpful to better understand your physical pain and your reactions to it
- A pain psychologist can help us work as a team, with you, to identify the best ways to reduce your suffering
Putting It All Together

- Psychological factors play an important role in the development and maintenance of pain
- There are various empirically supported psychological approaches to improve pain management
- A better understanding of what a pain psychologist does with patients will increase appropriate referrals and facilitate essential multi-modal, team-based care to optimize successful patient outcomes

Thank You

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