Emotional Fitness: Managing The “Difficult Patient”

Upon completion of this presentation the participant will be able to:

1. Explain the relationship of central sensitization to the management of individuals undergoing treatment and rehabilitation.
2. Recognize common characteristics of individuals with personality disorders.
3. Compare components of psychiatric disorders, belief system disorders, and stress related disorders.
4. Summarize numerous societal factors contributing to stress disorders.

Sam Kegerreis MS, PT, ATR
There is no patient problem so difficult that it can’t be made worse by the medical community.

“The Game Within The Game”

Early Attempts at Psychology
**Common Denominator**

“Pain is the most common symptom in health care, but despite this it is one of the least understood.”

Gordon Waddell MD

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**OPIOID DEPENDENCE**

Opioid dependence claims rose by more than 3,000% between 2007 and 2014

“In a perfect world, a physician would be able to work with a team that might include a physical therapist and/or occupational therapist, alcohol and drug counselors and others with related experience.”

http://www.reuters.com/article/us-health-painkillers-overdose-idUSKBNOUB1NF20151229

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**Pain**

Pain: Bodily suffering or distress to injury or illness, or as a mental or emotional torment of some kind.

Acute Pain: Associated with observable tissue damage which serves as a useful and protective function.

Chronic Pain: Pain that is not protective and fails to serve a biological purpose.

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**Pain**

“In most routine practice, doctors and therapists still consider pain in this way, i.e. “pain-as-a-signal”. But thoughtful clinicians have always known that this does not explain many clinical observations of pain.”

“Different patients with the same injury seem to experience very different amounts and kinds of pain, and they react in very different ways.”

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**The Back Pain Revolution**

Gordon Waddell
Foreword by A.R. Ackerman & Ross R. Phillips

CHURCHILL LIVINGSTONE
Quantum Reasoning

Characteristics of Chronic Pain
Outlasts normal healing time (of original etiology)
Incongruently disabling
Absence of identifiable tissue damage

“When pain becomes chronic, it is no longer a symptom but is considered the disease itself.”

Centrally Mediated Pain

Chronic Musculoskeletal Conditions
“End Organ Dysfunction”

“High quality evidence suggests that most existing approaches to the management of CLBP have only limited success. CLBP is characterized by a range of structural, functional and neurochemical changes within the brain.... We humbly suggest that for those of us interested in better understanding and treating people with CLBP, the challenge is to be both open minded and patient.”


“...That is, clinicians and researchers have looked to structural and functional abnormalities within the musculoskeletal system for a driver of the clinical condition and treatment has sought to normalize peripheral pathology and mechanics (stretch it, splint it, remove it, anaesthetise or denervate it). In general terms the “end organ dysfunction” approach might be considered to have proven unsuccessful for these conditions”

Psychological Considerations
Expectations & Outcomes

"Spinal manipulative therapy outcomes may be related to individual expectation for the provided intervention."

Placebo


Central Sensitization

"Central sensitization is defined as an augmentation of responsiveness of central neurons to input from uni-modal and poly-modal receptors. Central sensitization encompasses altered sensory processing in the brain, malfunctioning of descending antinociceptive mechanisms, increased activity of pain facilitatory pathways, temporal summation of second pain or wind up, and long term potentiation of neuronal synapses in the anterior cingulate cortex."


Central Sensitization
Recognition and Treatment of Central Sensitization in Chronic Pain Patients: Not Limited to Specialized Care

Criterion 1
Pain Experience Disproportionate to the Nature and Extent of Injury or Pathology

Criterion 2
Neuroanatomically Illogical Pain Pattern

Criterion 3
Hypersensitivity of Senses Unrelated to the Musculoskeletal System


David Butler & Lorimer Moseley

“Central sensitization provides an evidence-based explanation for many cases of "unexplained" chronic musculoskeletal pain. Prior to commencing rehabilitation in such cases, it is crucial to change maladaptive illness perceptions, to alter maladaptive pain cognitions and to re-conceptualize pain.”

SUMMARY

Nociception is neither sufficient nor necessary for pain.


"The mind is its own place and in itself can make a heaven of a hell or a hell of a heaven."

John Milton

Central Sensitization

"...of critical importance is the role of psychosocial factors, such as cognitive, affective, and behavioral issues that may promote central sensitization....Experimental evidence has shown that regional versus widespread central sensitization should likely be managed using different treatment approaches."

**Biomedical Model**
(Newtonian Physics)

**Biopsychosocial (Patient–Centered) Model**
(Quantum Physics)

**Operational Definitions**

**Disease**: Objective pathological change in anatomy or physiology

**Illness**: Subjective aspect of pain or disability...suffering

**Abnormal Illness Behavior**

“Behavior that minimizes or maximizes illness in reference to objective findings.”

“All behavior has a purpose.”

“All behavior has a purpose.”

“Attempt to possess a conscious humility, not toward the patient, but rather to the truth concealed within the patient.”

James Cyriax MD
Categorization of Abnormal Illness Behavior

Psychiatric Disorders

Belief System Disorders

Stress-Related Disorders

(Overlapping)

Psychiatric Disorders

Clinical Disorders
- Mood Disorders
- Anxiety Disorders

Personality Disorders
- Antisocial Personality
- Borderline Personality
- Narcissistic Personality

Personality Disorders

“Impairments in personality functioning and trait expressions, including impulse control, empathy, and moral reasoning that are stable across time and situations.”

Common Characteristics:

- Initially present in late adolescence
- May be accompanied by clinical disorders
- Vulnerable to substance abuse
- Self-centered & shallow
- Deceitful / Lying
- Episodes of “acting out”
- Multiple Broken Relationships

1 % of population

Anti-socials: Fear of being dominated or controlled
Narcissists: Fear of being inferior
Borderlines: Fear of being abandoned
Personality Disorder

What “normal people” perceive as problematic behavior is perceived as a “strength” by individuals with personality disorders.

Empathy

“We found that dispositional empathy—as measured by the IRI, a widely used and validated measure of the trait—declined over time among American college students.”

“In short, although personal technology and media use have exploded over the past decade, their potential negative interpersonal effects such as leading people to care more about themselves and to interact less with real others might also cause a decrease in empathy.”


Narcissism

“A cross-temporal meta-analysis found that narcissism levels have risen over the generations in 85 samples of American college students who completed the 40-item forced-choice Narcissistic Personality Inventory between 1979 and 2008.”


Incidence ?? Mirror Neurons


**Clinical Disorders**

**Depression & Anxiety**

The World Health Organization (WHO) reports that depression & anxiety are currently the world's leading causes of disability.


World Health Organization Secretariat: Global burden of mental disorders and the need for a comprehensive, coordinated response from health and social sectors at the country level (2011)

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**Clinical Psychiatric Disorders**

**Depression**

- 12% Women / 7% Men
- 15-20% Lifetime Incidence
- 4% Adolescents
- Parkinson 47%
- Chronic LBP 90% Clinical Disorders

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**We're talking about US!**

**Personal Ramifications**

WHO predicts that depression will be the biggest “disease burden” in high income countries by 2030.


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**Rising Morbidity and Mortality in Midlife [45-54] Among White Non-Hispanic Americans in the 21st Century**

Proceedings of National Academy of Science

Anne Case, Angus Deaton

www.pnas.org/cgi/doi/10.1073/pnas.1518393112

“This change reversed decades of progress in mortality and was unique to the United States; no other rich country saw a similar turnaround. …

“This increase for whites was largely accounted for by increasing death rates from drug and alcohol poisoning, suicide, and chronic liver diseases and cirrhosis.”

Woodrow Wilson School of Public and International Affairs and Department of Economics, Princeton NJ

www.pnas.org/cgi/doi/10.1073/pnas.1518393112
The prevalence of clinically relevant depression approached 45% in a diverse cohort of orthopaedic trauma patients. Global disability is strongly correlated with depression.

Crichlow RJ, Andres PL, Morrison SM. Depression in orthopaedic trauma patients. JBJS. 2006; 88-A: 1927-1933

Depression and pain share neurological pathways and neurotransmitters, which has implications for the treatment of both concurrently. A model that incorporates assessment and treatment of depression and pain simultaneously is necessary for improved outcomes.


Clinical Disorders

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Anxiety Disorders

Phobias
Panic Disorders
Social Anxiety Disorder
Post Traumatic Stress Disorder
General Anxiety Disorder
Obsessive-Compulsive Disorder (OCD)

Psychiatric Disorders

580 consecutive patients ortho trauma center
PTSD questionnaire
"51% of 580 patients met the criterion for PTSD"

Anxiety Disorders

"During the first decade of this century, the number of Americans taking prescription drugs to treat depression or anxiety rose by nearly a quarter. One in five adults now regularly take such medications."


"The suicide rate among middle-aged Americans increased by nearly 30% over the same ten years."


Psychiatric Disorders

CLBP Investigation
90% Clinical Disorders (depression)
58% Personality Disorders


Psychiatric Disorders

Prevalence study: N 1,323 (CDOSDs)
Consecutive patients: Tertiary referral center
65% at least 1 DSM disorder (excluding pain disorder)

- Major Depressive disorder 56%
- Anxiety Disorder 11%
- Personality Disorders 70%

"Clinicians must be aware of the high prevalence of psychiatric disorders in this population...Failure to follow a bio-psychosocial approach to treatment will likely contribute to prolonged disability in a number of these chronic patients."

Psychiatric Disorders

Depression associated with re-hospitalization & mortality & highest predictor of health status decline in CHF patients.


Significant correlation between DASH (Disabilities of the arm, shoulder, and hand) and depression.

Ring D, et al. JBJS. 2006; 88-A: 1783-1787

Short duration of complaints, lower disability scores, having a paid job, better working alliance, and no feelings of anxiety or depression were associated with recovery.


"Psychiatric Disorders Are Multifactorial"

Simon Wessely, President of the Royal College of Psychiatrists, King's College London

<table>
<thead>
<tr>
<th></th>
<th>Genetic</th>
<th>Environmental</th>
</tr>
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<tbody>
<tr>
<td>Bipolar Depression</td>
<td>80%</td>
<td>20%</td>
</tr>
<tr>
<td>Schizophrenia</td>
<td>80%</td>
<td>20%</td>
</tr>
<tr>
<td>Depression</td>
<td>40%</td>
<td>60%</td>
</tr>
<tr>
<td>Anxiety</td>
<td>30%</td>
<td>70%</td>
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Psychiatric Disorders

Associates of Physical Function & Pain in Patients with Patello-femoral Syndrome


MEASUREMENTS

- Pain, Function
- Muscle (quad & hip) strength
- Muscle flexibility
- Foot Pronation
- Q-Angle
- Tibial torsion
- Anxiety & Fear Avoidance

"Psychologic factors were the only associates of function & pain in patients with PFPS. Factors related to physical impairments did not associate to function or pain."


Medical Screens

"During the last month, have you often been bothered by feeling down, depressed, or hopeless?"

During the last month, have you often been bothered by little interest or pleasure in doing things?"

Medical Screens

“Screening for symptoms of depression by physical therapists managing low back pain”

...the therapists did not accurately identify symptoms of depression, even symptoms of severe depression


Medical Screens

“The accuracy of depression recognition by non-psychiatrist physicians is low.”


Categorization of Abnormal Illness Behavior

Psychiatric Disorders

Belief System Disorders

Stress-Related Disorders

(Overlapping)

Belief System / Context

“Everyone” Has A Story

“Restated, it is the individual's experience of disability as it is interpreted within his or her personal world, not medical status or biology, that gives meaning to the actions of rehabilitation.”

Belief System Disorders

**Boeing Study**

Prospective study-3020
4 years-acute LBP

#1 prior LBP

#2 job satisfaction


**Belief System Disorders : Compensation**

Meta-analysis
211 studies 1966-2003 (any sx)
175 compensation = worse sx outcome
35 no difference
1 compensation = better sx outcome

"Compensation status is associated with poor outcome after surgery. This effect is significant, clinically important, and consistent...Compensation status should be considered a potential confounder in all studies of surgical intervention."


FEAR AVOIDANCE BEHAVIOR

"It’s not serious. It’s only pain."

Fear
Avoidance
Model (of)
Exaggerated
Pain
Perception

Confrontational vs Avoidant Behavioral Response

Belief System Disorders

**Prospective rand. cohort study**

1152 occupationally active individuals

Psychosocial questionnaire / 12 year follow up
Long term LB disability

Predictors:

Previous LBP, emotional & job distress, ↓ education

Greatest predictor: previous LBP, emotional distress,

FEAR AVOIDANCE BEHAVIOR

“‘t’s not serious. It’s only pain.”

Fear
Avoidance
Model (of)
Exaggerated
Pain
Perception

Confrontational vs Avoidant Behavioral Response

MEANING / CONTEXT

“These relationships are modulated by other sensory inputs and cognitive, emotional, and social factors that can be broadly encompassed by the concept of “context.”


BELIEF SYSTEM : FEAR AVOIDANCE BEHAVIOR

“Grandpa…..Can’t I go fishing and not hurt ?”

“Common personality traits may become magnified under the stress of illness. If a patient’s need for emotional support is unmet, the level of compliance drops.”

Belief System Disorders

CHANGE THE STORY !!!!

“The past need not determine the future.”

Perception Is More Important Than Reality

“LEARNED HELPLESSNESS”

“How a patient reacts to disability or illness is influenced by his/her belief symptoms. These beliefs form an important part of self-image and personality and are derived from experience and the socialization process.”

Clepton & McMahon
Clinical Management 1992

Confrontation vs Avoidance

False Evidence Appearing Real
Categorization of Abnormal Illness Behavior

Psychiatric Disorders

Belief System Disorders

Stress-Related Disorders (Overlapping)

Stress-Related Disorders

“Some 10-15% of patients visiting a primary care physician have a psychiatric disorder, and nearly 80% show significant psychological distress.”


Medical Costs: Chronic Conditions

| Weight Gain | Cardiac Arrest |
| Stroke | Blood Pressure |
| Hair Loss | Memory |
| Digestion | Blood Sugar |
| Immunity | Asthma |
| Sleep Disruption | Anxiety/Depression |
| Sexual Drive ↓ | Aging (↓ Telomeres) |

“Stress contributes to the development of major illnesses and exacerbates existing illnesses.”


Stress in America

Missing the Health Care Connection

February 7, 2013

“The results of the survey draw attention to the serious physical and emotional implications of stress and the inextricable link between the mind and body.”


“There appears to be general agreement that persistent, high stress is unhealthy, yet Americans struggle to manage the relationship between stress and health in their lives.”

Stress in America
Missing the Health Care Connection

“88% say that their current health care system does not support them in managing their stress.”

STRESS & PAIN

“Ultimately, a prolonged or exaggerated stress response may perpetuate cortisol dysfunction, widespread inflammation, and pain.... Given the parallel mechanisms underlying the physiologic effects of a maladaptive response to pain and non–pain-related stressors, physical therapists should consider screening for non–pain-related stress to facilitate treatment, prevent chronic disability, and improve quality of life.”


CLINICAL RESPONSE TO DAILY STRESS

Stress-Related Disorders

Economic Stressors
Vocational Stressors
Sociological Stressors
Psychological Stressors
Health Stressors
*Emotional Trauma (life events)*
“Emotional Memories Are Forever.”


**Sexual Abuse**

Adult survivors of childhood sexual abuse

- 16% of US men
- 25% of US women

* "These statistics are likely underestimates because the event is frequently underreported."

* "This review found that sexual abuse was associated with a lifetime diagnosis of non-specific chronic pain, functional gastrointestinal disorders, psychogenic seizures, and chronic pelvic pain."


**Stress-Related Disorders**

- 86 patients lumbar sx
- Pre-operative screen for childhood risk factors
- No pre-operative psycho-pathology (screen)

No risk factors 95% success
3 or more risk factors 85% unsuccessful lumbar sx
(physical, sexual, substance, emotional, abandonment)


**Stress-Related Disorders**

Prospective / 160 patients / lumbar fusion

Pre-sx SF-36 (health related quality of life)

24 month follow up

Pre-surgical emotional status predicts LBP / leg pain / function

Stress-Related Disorders

“The results of all the studies reported suggest a mind-body connection in chronic pain...we identified specific emotional events, often family related, that preceded the injury in patients with chronic back pain.”

Blair JA, Blair RS, Rueckert P. Pre-injury emotional trauma and chronic low back pain. Spine 1994; 19: 1144-1147

Personal Stressors

“ I don’t need this right now ! ”

Economic Unrest  Societal Stressors  Terrorism

Globalization/Automation  Political Discord

Exhaustion

“THE NEW NORM ! ”
“Problems at work are more strongly associated with health complaints than any other life stressor—more so than even financial or family problems.”


GENETICS LOADS THE GUN

“Lifestyle” Pulls The Trigger

Invisible Entrapment

Life Currency

“The cost of a thing is the amount of life required to be exchanged for it, immediately or in the long run.”

Henry Thoreau

Time & Energy
“Numerous opinion polls in the United States & Europe show that people complain more about lack of time than about lack of money or freedom.”

H. Bloomfield, MD

If you don’t manage your time someone (or everyone) else will!

The curious gift of finite time”
Carrie Newcomer

Sleep Deprivation

Somatotropin & Serotonin Release
There’s a tension between the part of us that wants to move along at speed, infatuated with our ever-proliferating array of screens and gadgets, and the part of us that deeply hates them, too. There’s the part that doesn’t want to be bothered with other people’s lives and is therefore comfortable with the false proximity that social media affords. But there’s also the part that is heartbroken at the loneliness and isolation of the life we are living—the part that requires medication and constant distraction just to endure it.

Clark Strand
The relentless acceleration by the digital revolution has rapidly found its way into our lives by the home computer, fax machines, beepers, cell phones, palm devices, laptops, the internet and the world-wide web, and of course E-mail (now increasingly wireless), not that long ago an unthinkable dream, the stuff of science fiction.

Moore’s Law: The speed and power of microchips—that is, computational processing power, will double every two years, for only slightly more money with each new generation.

For all the undeniable convenience, usefulness, access, efficiency, improved coordination, information, entertainment, ease of shopping, banking, & communication, these digital developments bring with them this colossal technical revolution that has barely begun has already irreversibly transfigured our lives. All this threatens to erode our ability & inclination to sustain attention & thereby to know things in a deep way, before initiating some kind of action.
Microsoft study utilizing surveys and EEG analysis
MEDICAL PRESS May 15, 2015
Determine impact of modern digital technology on attention span
- Average attention span decreased from 12” (2000) to 8” (2015)

“...one of the unexpected disasters of the modern age that our new unparalleled access to information has come at the price of our capacity to concentrate on anything much.” Alain de Botton

Shorter attention spans are normal neural adaptation to technology

“...It is not stress that kills us. It is our reaction to it.”
Hans Selye, MD

Monkey Mind

Stress

Reactivity Threshold
**STRESS**
(Impulse Control)

Amygdala – Pre-frontal Cortex Toggle

**Mindfulness Meditation: Lowering Reactivity Threshold**


“**Painful People**”

“However, identifying the contribution of central sensitization to many painful clinical conditions, “inexplicable” until the last couple of years, has marked an important shift in physical therapists’ clinical reasoning and has favored the development of new therapeutic strategies.”


“**Mental illnesses are the extreme manifestations of traits that are common inheritance as human beings.**”

James Strickland

“**We are ALL a little crazy!**
HRH
Emotional Fitness Program