

# ANATOMY OF A PAIN/PSYCHOLOGICAL EVALUATION

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What can a psychologist tell me about someone in pain?

# Biopsychosocial Model of Pain (Gatchel et al, 2007).

**Disease:** an objective biological event involving the disruption of specific body structures or organ systems caused by either anatomical, pathological, or physiological changes.

**Illness:** a subjective experience or self-attribution that a disease is present; how a sick person and members of his or her family live with, and respond to, symptoms of disability.

# Association Between Compensation Status and Outcome After Surgery (Harris et al, 2005).

- 211 studies satisfied the inclusion criteria
- Of these, 175 stated that the presence of compensation (worker's compensation with or without litigation) was associated with a worse outcome
- 35 found no difference or did not describe a difference
- 1 described a benefit associated with compensation
- Compensated patients were 3.79 times more likely to have an unsatisfactory outcome (n=20,498)

# The Use of Presurgical Psychological Screening to Predict the Outcome of Spine Surgery (Block, 2002)

- 204 patients undergoing laminectomy/discectomy (n=118) or fusion (n=86) of the lumbar spine
- A presurgical psychological screening (PPS) scorecard was completed for each patient, assessing whether the patient had a high or low level of risk on these psychological and medical dimensions.
- Based on the scorecard, an overall surgical prognosis of “good,” “fair,” or “poor” was generated.

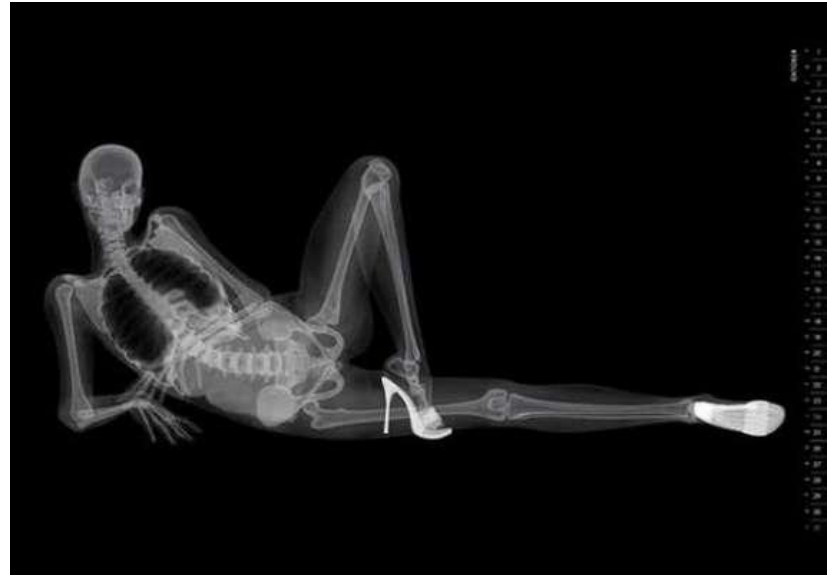
# The Use of Presurgical Psychological Screening to Predict the Outcome of Spine Surgery (Block, 2002)

- Medical and psychological risk levels were both significantly related to outcome, with the poorest results obtained by patients having both high psychological and medical risk
- The accuracy of PPS surgical prognosis in predicting overall outcome was 82%
- Only 9 of 53 patients predicted to have poor outcome achieved fair or good results from spine surgery

# Record Review

# Record Review

- ❑ I am not a physician
- ❑ I cannot interpret x-rays, MRI, CT, etc.
- ❑ I can, however, benefit from opinions communicated by MDs





# Record Review

- MDs document valuable clinical observations
  - ▣ Current treatment plan
  - ▣ Typical or atypical response to biomedical treatments
  - ▣ Correspondence of objective findings and subjective symptoms
  - ▣ Treatment compliance
  - ▣ Non-physiologic symptoms (Waddell signs)
  - ▣ Exaggerated/inconsistent clinical presentation
- More daylight between symptoms and findings = more room for psychological factors to be involved

# Record Review



- Second opinion reports
- Functional capacity evaluations
  - ▣ Motivation, effort
  - ▣ Can provide objective measures of symptom validity

# Clinical Interview

# Clinical Interview

- History of injury
  - ▣ Patient's perception of circumstances, how it was handled, how they were treated
- Scope of symptoms
  - ▣ Pain, limitations, emotional symptoms, impact on relationships, new life stressors, cognitive problems
  - ▣ The nature of the injury does not constrain the symptoms with which the patient will present (e.g., knee injury with memory complaints)

# Clinical Interview

- Pre-injury History
  - ▣ Adverse childhood experiences
  - ▣ Mental health history
  - ▣ Substance abuse history
  - ▣ Job dissatisfaction/occupational stress
- Post-injury History
  - ▣ Current emotional status (depression, anxiety, anger)
  - ▣ Perception of disability
  - ▣ Relationship with doctors, satisfaction with care
  - ▣ Support or solicitousness by family/spouse
  - ▣ Claim status, litigation

# Psychological Testing



# Psychological Testing

- ❑ “A valuable component of a consultation to assist the physician in making a more effective treatment plan” (OWCA, 2011)
- ❑ Comparison of patient’s symptom report/performance to normative groups (including pain patients involved in WC system)
- ❑ Interview + Psych testing = Clinical exam + MRI
- ❑ Symptom validity assessment

# Somatization

The manner in which “certain patients use their physical symptoms as a way of dealing with, and communicating about, their emotional lives . . . in this type of symptom magnification, physical symptoms may be easier to accept as causing current unhappiness and discontent than admitting that some psychological reason is contributing to it.”

Gatchel, R. J. (2004). Comorbidity of chronic pain and mental health disorders: the biopsychosocial perspective. *The American Psychologist*, 59, 795-805.



# Pain Catastrophizing

A tendency to . . .

- fear pain
  - have a fear-inducing understanding of the meaning of pain (e.g., the presence of pain is an indication of harm)
- and/or
- a tendency to allow pain to be a dominant focus of ones life.

Proctor, T., Gatchel, R. J., & Robinson, R. C. (2000). Psychosocial factors and risk of pain and disability. *Occupational Medicine*, 15, 803-12.

# Pain = Disability

- A perception (thoughts, beliefs) that pain is inherently disabling
- Contributes to de-activation in response to benign, chronic pain
- Creates a self-reinforcing cycle of pain and deactivation

# Psychological Comorbidities

- Depression
  - ▣ Chicken/egg question
  - ▣ Sometimes reactive
  - ▣ Sometimes chronic pain is “masked depression”
- Anxiety
  - ▣ About why they are still hurting, will they ever get relief
  - ▣ Activates anxiety about other things
  - ▣ Spurs avoidant behavior

# Psychological Comorbidities

- Anger
  - Also chicken/egg
  - Bigger issue in WC system, which can become implicitly or explicitly adversarial
  - Internalizing anger = magnified pain
- Demoralization
  - “A pervasive and affect-laden dimension of unhappiness and dissatisfaction with life...dysphoric affect, distress, self-attributed inefficacy, low self-esteem and a sense of giving up (Ben-Porath, 2012)
  - Higher demoralization = higher self-reported physical disability, lower return to work rates, greater use of opioid medication, poorer satisfaction with surgical outcome, and worse overall outcome (Block, 2016)

# Psychological Testing

- All of the above are **objectively measurable** (like BMI, bloodwork, etc.)
- Research has identified specific measuring tools and cut-scores at which each becomes risk factors for poor outcomes

# Cognitive Testing

- ❑ Depression, anxiety, etc. can be distracting and reduce cognitive efficiency (working memory, processing speed)
- ❑ Mood-dependent, not permanent loss of function
- ❑ Patients may over-estimate their cognitive problems (sometimes no objective evidence at all, but a subjective perception)

# Intentional Symptom Exaggeration

- Factitious disorder (goal is attention, sympathy)
- Malingering (goal is compensation, paid time off, access to medications)
- Rates of malingering in compensated cases:
  - ▣ Kay et al. (1999): 20%
  - ▣ Mittenberg et al. (2002): 31%
  - ▣ Greve et al. (2009): 20-50%

# Intentional Symptom Exaggeration

- ❑ Diagnosing malingering is big deal
- ❑ It is crucial to take steps to minimize likelihood of false positive identification (high specificity, even if at the cost of sensitivity)
- ❑ Peer-reviewed criteria should be used, incorporating objective measures that have been subjected to peer-review process, with known error rates in relevant populations (Slick et al., 1999; Bianchini et al., 2005)



# Malingered Pain Related Disability (MPRD; Bianchini et al., 2005)

- ❑ Focus is on assessment of *disability* (which is what is compensable), not only subjective pain complaints
- ❑ Disability is multimodal (cognitive, emotional, physical)
- ❑ Claimed disability may or may not have any relation to the injury (e.g., hallucinations attributed to a knee injury)
- ❑ Consider combined improbability of findings (i.e., “one in a million”)

# Integration and Report

# Are psychological/psychosocial factors complicating this case?

- ❑ NOT “is this all in their head?”
  - ❑ *Nobody* knows they’re hurting without their brain being involved
- ❑ Instead, are there things MDs might not be able to address (or even see) that are making medical/functional problems worse?
- ❑ On a broad level, this is a yes or no question

# Does complication take the form of conscious/intentional factors?

- Factitious Disorder
  - ▣ Intentionally exaggerating symptoms for sympathy or attention
- Malingering
  - ▣ Intentionally exaggerating symptoms for secondary gain (work avoidance, financial compensation, access to drugs)
- These are not mutually exclusive

# Which non-intentional complicating factors are present?

- ❑ Somatoform coping styles
  - ❑ Somatization
  - ❑ Pain Catastrophizing
- ❑ Complicating comorbidities
  - ❑ Depression
  - ❑ Anxiety
  - ❑ Anger/hostility
  - ❑ Demoralization

# Which non-intentional complicating factors are present?

- **Static/historical factors**
  - ▣ Childhood adversity (trauma, abuse, neglect)
  - ▣ Premorbid psychiatric history
  - ▣ Substance Abuse History
  - ▣ Job Dissatisfaction
- **Contextual/Psychosocial Factors**
  - ▣ Worker's compensation status
  - ▣ Litigation
  - ▣ Spousal solicitousness
  - ▣ Low spousal support
  - ▣ Prolonged work absence

Block et al.  
(2013).

## Presurgical Psychological Evaluation

### Presurgical Psychological Screening---MALE

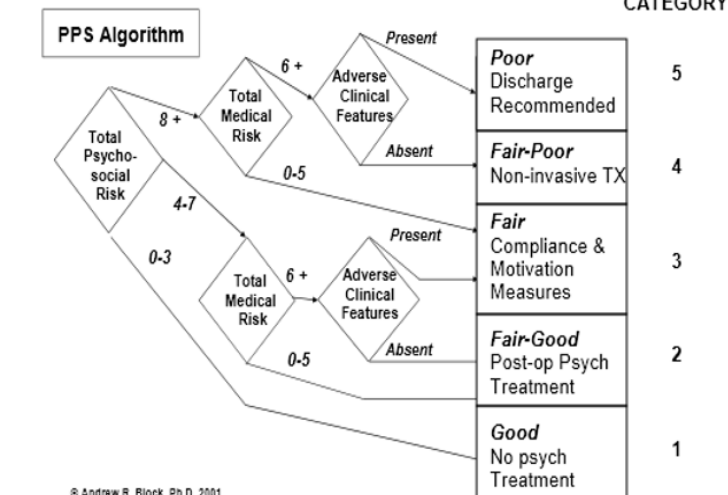
Patient: \_\_\_\_\_

Date: \_\_\_\_\_ Referral Source: \_\_\_\_\_

ID: \_\_\_\_\_ Surgery Type: \_\_\_\_\_

Interview Risk Factors	
Factor	Pts
Job Dissatisfaction	2
Worker's Comp	2
Litigation	2
Spousal Solicitousness	1
No Spouse Support	1
Abuse & Abandon	1
Substance Abuse	
Current	2
Remote (older than 2 years)	1
Psych History	
Inpatient or long-term	2
Outpatient or short-term	1
Not working > 2 mos	1

Testing Risk Factors (max 6 points)	
Factor	Pts
Pain Sensitivity	2
RC1>71, MLS>78, NUC>73, HPC>65	
Depression	
RCd>61, RC2>64, EID>61, SUI>57	
CHRONIC	2
REACTIVE	1
Anger	
RC4>59, ANP>57, AGG>57	2
Anxiety	
RC7>54, STW>62, AXY>62	2
Depressed-Pathological	
4 RC scales > 1 sd above mean	4
Low Self Esteem	
K-r<44, SFD>59	1
Excessive Guardedness	
K-r>66, L-r>71	2
Catastrophizing	2
PAIRS>75	1



Medical Risk Factors	
Factor	Pts
Pain 6-12 months	1
Pain > 12 months	2
Highly Destructive Surgery	2
Nonorganic Signs	2
Abnormal Pain Drawing	2
Prior Spine Surgeries	
2 or more	2
1	1
Prior Medical Problems	2
Smoking	1
Obesity	1

Adverse Clinical Features	
Inconsistency	
Medication Seeking	
Staff Splitting	
Compliance Issues	
Threatening	
Resignation	
Deception	
Personality Disorders	

# Causality

- ❑ Some complicating factors may have developed secondary to the injury
- ❑ Some complicating factors may have predated the injury but been exacerbated by it
- ❑ Some complicating factors may have long predated the injury
- ❑ Intentional/unintentional “distortion of attribution” can be objectively measured



# Work Status

- Most psychological problems seen in pain patients are not disabling or permanent
- “Complete work cessation should be avoided if possible” and “promotes disability”
- Work return “can decrease anxiety, reduce the possibility of depression, and reconnect the worker with society”
- **Work return at an appropriate physical demand level is therapeutic**

# Not All Psychological Evaluations are Created Equal

- A good one:
  - ▣ Is comprehensive (history, testing, records)
  - ▣ Is empirically-based
  - ▣ Careful examines symptom validity
  - ▣ Considers causality
  - ▣ Addresses work status status

# Not All Psychological Evaluations are Created Equal

- A not-so-good one:
  - Is brief
  - May not include a review of medical records
  - Has no references to empirical literature
  - Examines validity in a cursory manner
  - Is written as if life began the day of the injury
  - Prescribes work absence as a means of improving emotional adjustment
  - Affirmatively predicts a *good* procedure outcome

# When to Consider a Pain/Psychological Evaluation (OWCA, 2011)

# Delayed Recovery

- A patient is failing to make expected progress at 6-12 weeks post-injury.
- These patients may need more, possibly including treatment to address cognitive, behavioral, emotional, psychosocial factors.
- Psychological evaluation is indicated to help determine most appropriate treatment plan.

# Non-Physiologic Symptoms

- ❑ Waddell Signs are associated with decreased functional performance and greater subjective pain levels but provide no information on the etiology of pain.
- ❑ They cannot be used to predict or diagnose malingering (high false positive error rate).
- ❑ Positive Waddell Signs (3/5) indicate a need for psychological evaluation.

# Provocation Discography

- ❑ Psychometric findings of somatization predicts report of pain upon injection of non-disrupted discs (Block et al., 1996).
- ❑ Psychologically complicated patients may report significant exacerbation of back pain for up to one year after discography (Carragee et al., 2000).
- ❑ A review paper *supporting* the use of discography places false positive rate among somatization disorder patients at 50% (Wolfer et al., 2008).

# Spine Surgery

- It is “imperative...to rule out non-physiologic modifiers of pain presentation,” including “psychological conditions.”
- Psychological evaluation is “strongly encouraged when surgery is being performed for isolated, axial pain.”



# The Role of Psychological Treatment in Pain Cases

# Interdisciplinary Rehab Programs

- ❑ “The gold standard of treatment for individuals with chronic pain who have not responded to less intensive modes of treatment.”
- ❑ Strong evidence that they improve functioning, moderate evidence that they reduce pain
- ❑ “Should assess the impact of pain and suffering on the patient’s medical, physical, psychological, social, and/or vocational functioning”
- ❑ Should be initiated within 6 months post-injury in patients with delayed recovery (unless surgery intervenes)
- ❑ Can be formal or informal, more or less intensive

# Interdisciplinary Rehab Programs

- Gatchel et al. (2006): Meta-analysis/review study of comprehensive pain programs (CPP)
  - ▣ Annual medical costs are reduced by 68%
  - ▣ Average lifetime savings is \$356,288 (based on healthcare and disability expenditures, does not reflect increased tax revenue, productivity, sick leave).
  - ▣ Average work return rate is 66%, compared to 27% average for traditional medical pain management (17 studies published between 1980 and 2000).

# Interdisciplinary Rehab Programs

- ❑ CPP patients have lower healthcare utilization, take less medication, function at higher levels, are more likely to return to work, and are more likely to close disability claims than patients receiving standard medical care (Turk, 2002).
- ❑ CPP patients have better physical and mental health outcomes, miss fewer work days, and are more satisfied with treatment (Lang et al., 2003).
- ❑ Patients in a light interdisciplinary program were more likely to return to work, compared to patients receiving treatment as usual by PCP; no difference was found related to intensity of interdisciplinary treatment (Skouen et al., 2002).

# Interdisciplinary Rehab Programs

- ❑ Interdisciplinary, biopsychosocial rehab with functional restoration reduce pain and improves function in chronic low back pain patients compared to inpatient or outpatient non-multidisciplinary treatment (Guzman et al., 2001).
- ❑ After interdisciplinary treatment, patients required 1/3 the number of surgeries and hospitalizations compared with patients treated with alternative medical and surgical care (Flor et al., 1992).
- ❑ In acute low back pain patients, those assigned to CBT with physical therapy group missed fewer days of work for back pain and were 5 times less likely to go on long-term sick leave than a treatment-as-usual group (Linton et al., 2005).

# Psychosocial Treatment

- Psychosocial treatment “may enhance the patient’s ability to participate in pain treatment rehabilitation, manage stress, and increase understanding of problem-solving and self-management skills.”
- Cognitive-Behavioral Treatment (CBT)
  - Goal-directed, skills-oriented, and time-limited
  - Includes specification of short-, medium-, and long-range goals, *including a plan for achieving work return*
  - Progress and compliance can be objectively assessed

# Psychosocial Treatment

- ❑ CBT produces greater changes in pain experience, cognitive coping and appraisal, reduced behavioral expression of pain (Morley et al., 1999).
- ❑ Numerous, controlled clinical trials find CBT to be effective in reducing pain, distress, and pain behavior and improving daily functioning (McCracken & Turk, 2002).
- ❑ It is well-established that CBT is effective in reducing suffering and have economic benefits in that they are cost-effective as well (Vlaeyen & Morley, 2005).
- ❑ A review of published studies demonstrates effectiveness of CBT in reducing chronic pain (McGrath & Holahan, 2003).

Have a nice day

