A Sober Assessment of Response Bias: Can it be Avoided (in Examiners, Examinees and Examinations) and What does it really mean?

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Compensation and Injury:

Longitudinal study of personal injury litigants in MVA's (Evans, 1994)

- Strongest predictors of successful outcome were
  - Inclusion of psychological services in the Tx plan
  - Receipt of immediate intervention, with return to work (RTW) treatment focus
  - RTW at reduced status or modified duties

- $\geq 6$ months: uncooperativeness and delayed bill paying of medical insurance carriers (vs. medical symptoms) was most frequently reported stressor.

- Insurance carrier bill payment very strongly predicted RTW
  - Prompt ($\leq 30$ days): 97% had returned to work.
  - Delayed ($> 90$ days): 4% had returned to work.
Incidence and Speed of Claim closure of Whiplash injury after change to no-fault in Saskatchewan Canada (Cassidy, et al, 2000)

- Claims dropped by 28%
- Time to claim settlement was cut by 54%.
- Intensity of neck pain, level of physical functioning, depressive symptoms, having attorney increased claim closure for both

Conclusion: Compensation for pain and suffering increases frequency, duration of claims and delays recovery

Note: No-fault system eliminated most court actions, income replacement and medical benefits were increased and medical care became universal, without barriers

- Pre-injury anxiety was associated with delayed claim closure only under the tort system

New Conclusion: removal of financial disincentives and medicolegal associated treatment barriers has a facilitative effect on post-injury recovery.
Goethe

Survey of Attitudes Regarding Workers Compensation (W.C.)

<table>
<thead>
<tr>
<th>Question</th>
<th>Disability Evaluating Professionals (N=27)</th>
<th>Medical Psychology Service Staff (N=7)</th>
<th>Case Managers (N=16) ; 7 W.C.</th>
</tr>
</thead>
<tbody>
<tr>
<td>1: % of Injured Workers Who Exaggerate/Malinger</td>
<td></td>
<td>19.2</td>
<td>24.7</td>
</tr>
<tr>
<td>2: % Injured Worker that W.C. Insurance Treats &lt; Fairly</td>
<td></td>
<td>49.2</td>
<td>62.5</td>
</tr>
<tr>
<td>3: % Employers Who Treat Injured Workers &lt; Fairly</td>
<td></td>
<td>53.5</td>
<td>41.2</td>
</tr>
<tr>
<td>4: Likelihood Employer Would Treat You (if injured) &lt; Fairly</td>
<td></td>
<td>43.75</td>
<td>54.2</td>
</tr>
<tr>
<td>5: Likelihood W.C. Would Treat You (if injured) &lt; Fairly</td>
<td></td>
<td>60</td>
<td>65.9</td>
</tr>
<tr>
<td>IV-3: Sex</td>
<td>66% Female</td>
<td>57% Female</td>
<td>100% Female</td>
</tr>
</tbody>
</table>
The doctor:

- Spent only one half hour with me and stuck me with a technician
- and talked mostly about why I didn't think I could work and if I ever went out on disability before, or if I was emotionally disturbed
- ...but spends hours and hours with the big shot decision makers
- ...and spent more time giving me trick (malingering) tests than talking with me
- ...and wrote a report that let SSD deprive me of the disability I deserve
The Federal Judiciary Center Study (2000)

### Diagnostic Realities in Assessment of Impairment and Disability

<table>
<thead>
<tr>
<th>Real Disorder (e.g., Pain, TBI)</th>
<th>Residual Functional Impairments</th>
<th>Residual Testing Impairments</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Yes</td>
<td>1. Yes &amp; Exaggerated</td>
<td>1. Yes &amp; Not Exaggerated</td>
</tr>
<tr>
<td>3. Indeterminate</td>
<td>3. No &amp; Exaggerated</td>
<td>3. No &amp; Exaggerated</td>
</tr>
</tbody>
</table>

4 x 4 x 4 = 64
Myth #1: We Know What Pain Is

Myth #2: Pain is Either in the Body (organic) or in the Mind (functional)

Myth #3: Medical science will solve the problem of pain and suffering...or All pain has a physical/neurobiological substrate that will be amenable to biologic intervention...
Myth #4: We Know What Our Tests and Examinations Measure

Myth #5: We Have Reliable Tests and Exams that are Specifically SensITIVE to Organic Vs. NonOrganic Conditions

Myth #7: Low Scores on Performance/Ability Tests Constitute Real Impairment

Myth #8: Response Bias and Malingering Can be Reliably Detected

Myth #9: Tests are Ecologically Valid

Myth #10: Emotional Distress/Depression / Cognitive Impairment / Chronic Stress / Sleep Deprivation / Fatigue... Do Not Produce Pain
Myth #11: If There is No Discernible Organic Basis Then Pain must be "Functional"

Myth #12: We Understand Pain Generators

Myth #13: Pain is Psychogenic or Pain is Not Psychogenic

Myth #14: Psychological disturbance in Chronic Pain Patients is Causal Vs. Reactive
Myth #15: If There is a Psychological Component, It is All in Your Head
Myth #16: Chronic Pain Patients are Malingering
Myth #17: Psychological Treatments are Not Helpful for Real (organic) Pain
Myth #18: Because psychological factors may be associated with onset, maintenance, exacerbations, severity etc., means that it is not a real
Myth #19: Functional Neuroimaging Will allow us to Unlock the Secrets of Pain.

Myth #20: Narcotic Use Causes Addiction (or It Does Not)

Myth #21: PAIN DOES NOT CAUSE COGNITIVE PROBLEMS

Myth #22: All of the Patients Problems are Because of the Accident and Pain

Myth #23: Pain is Composed of Separable Components (e.g., sensory-discriminative, motivational-evaluative)
EXAMINING PATIENT BIASES

ATTRIBUTIONAL BIASES

- MIS / OVER-ATTRIBUTION
  - Retrospective Attribution
  - Correlational Attribution
  - Vigilance Biases
  - Inventory Biases

OPERANT BIASES

- General Consequences
  - Cancer Versus Mild TBI
- Compensation Bias
  - Denial Versus Vigilance (volitional and not)
  - Adversarialism
- Murphy's Law Bias
PATIENT BIASES

RESPONSE BIAS

- DENIAL
- UNAWARENESS
- SYMPTOM MINIMIZATION
- SYMPTOM MAGNIFICATION
- MALINGERING
- Reactive Adversarial Malingering
- Desperation Malingering
- Sociopathic or Opportunistic Mal.
- DISTRESS Profile / PLEA for HELP
Specific Impediments to Adaptation that Can Increase Likelihood of Response Bias

- Anger or Resentment or Perceived Mistreatment
- Fear of Failure Or Rejection (e.g. damaged goods; fear of being fired after injury)
- Loss of Self-confidence and Self-efficacy associated with Residual Impairments
- External (health, pain) Locus of Control
- Fear of Pain (*Kinesophobia, Cogniphobia*)
- Re-injury / Exacerbation of Injury
- Discrepancies between Personality / Coping Style Behaviors and Injury Consequences

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Impediments (cont.)

- Insufficient Residual Coping Resources / Skills
- Disuse Atrophy
- Fear of Loosing Disability Status, Benefits, Safety Net
- Perceptions of High Compensability for injury
- Preinjury Job (task, work environment) Dissatisfaction
- Collateral Injuries (especially if "silent")
- Inadequate and/or or Inaccurate Medical Information
- Mis- or Late diagnosis and Mis- or Late Treatment
- Dichotomous (organic vs. psychologic) Conceptualizations of injury and symptoms

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Kinesiophobia

- Derived in response to observations by health care treatment specialists of significant avoidance responses in the treatment of chronic back pain
- Defined as the unreasonable or irrational fear of pain and painful reinjury upon physical movement.
- Phobic responses to pain (or pain phobias), as unhealthy pain maintaining habits, are a major contributor to pain related disability.
Cogniphobia

- Cogniphobia was subsequently proposed as an unreasonable or irrational fear of headache pain or painful reinjury upon cognitive exertion.
- The C-Scale (Todd, Martelli & Grayson, 1998) is designed to assess anxiety based avoidant behavior with specific regard to cognitive exertion.
- C-Scale approximate equivalent to the K-scale applied specifically to assessment of ACPRD in cases of head and neck pain.
Other Common Sources & Types of Response Bias

1) Cultural Differences (e.g., less Western Mind-Body Dualism outside the US and many Middle Easterners mix emotional and physical pain and symptoms at a conceptual and phenomenological level; Many non-Christian cultures see failure to impose severe penalty / extract significant compensation for harm as a sign of weakness and disgrace in God's eyes)

2) RAM - Reactive Adversarial Malingering (RAM) based on fear, mistrust of opposing side honesty, mistreatment (e.g., from assumed "facts" in many work setting and cultures including plaintiff attorney groups) resulting in deliberate pendulum-like overplaying of symptoms. This may be especially characteristic in persons / groups with tendencies toward suspiciousness, including immigrants and outcasts and outsiders and those who feel chronically underprivileged.

3) Conditioned Avoidance Pain Related Disability (CAPRD), or roughly, phobic or extreme anxiety reactions wherein any competence (or ability or activity) is associated with excessive, overwhelming demands for pain exacerbation from external sources and expressed both above and below conscious awareness. Cogniphobia and kinesiophobia are two types.
Sources & Types of Response Bias (cont.)

4) Desperation Induced Malingering (DIM) or Desp. Induced Symptom Exaggeration (DISE) - e.g., insecure immigrant workers, aging workers, tired workers, workers insecure about work changes, immigrants who tried introjection and feel resentful that they were not rewarded, persons who recently dined back on the horse only to get knocked off again without belief they can climb back in the saddle one more time, workers fearing their own limited or declining abilities, real or imagined abuse from employers, family, etc., immigrants who feel rejected by the culture and feel entitled, immigrants who feel disillusioned because the new land was not everything they had hoped - i.e., those who believe this to be a viable solution to a desperate situation. Probably also included are those making desperate pleas for help and those who, upon confronting tests that seem different and maybe easier than the real life situations where they have problems, reduce effort to highlight their problems.

5) Sociopathic, Freeloading and Goldbricking Types (SFG's)! These self-explanatory styles can be found in all groups, with estimated frequencies of generally between 5 and 10% in the chronic pain populations (20% given compensation situations).
6) Passive Aggressive or Impatient or Rebellious types, who resent people who don't listen to them and believe them at face value, and resent imposed evaluations or doctor's visits, especially ones that examine psychological function or motivation. They may play games with doctors by withholding or undermining procedures or treatments, and may especially alter performance or play games on tests that seem non-challenging or not face valid.
IMPORTANCE OF DETECTING RESPONSE BIASES

- Accurate Diagnosis
  - Appropriate Treatment Provision
    - Pain, Depression, PTSD, etc.
  - Timely Treatment Provision
  - Prevention of Iatrogenic Impairment, Chronic Impairment and Disability Reinforcement
- Appropriate Legal Compensation Decisions
RESPONSE BIAS: Hallmark Signs

I. Inconsistencies Between and Within
   - Reported Symptoms
   - Test Performance
   - Clinical Presentation
   - Known Diagnostic Patterns
   - Observed Behavior (in another setting)
   - Reported Symptoms & Test Performance
   - Measures of Similar Abilities (interetest scatter)
   - Items Within the Same Test (intratest scatter)
     ...esp. when difficult items > easy items
   - Different Testing Sessions

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II. Overly Impaired Performance (vs. those with known impairment)

- Very Poor Performance on Easy Tasks Presented as Difficult
- Failing Tasks That All But Severely Impaired Perform Easily
- Poorer Performance Vs. Norms For Similar Injury/Illness.
- Below Chance Level Performance
RESPONSE BIAS: Hallmark Signs

III. Lack of Pathognomonic Signs

IV. Specific Signs of Exaggeration / Dissimulation / Malingering

- MMPI/2: F, F-K, 'Fake Bad', Subtle vs. Obvious
- Avoidance Conditioning and Exaggeration Tests
  - Kinesiophobia & Cogniphobia Scales; PAB
- Response Bias / Malingering Detection Tests
  - 15 Items, Digit Recognition, Word Memory Tests
V. Interview Evidence

- Non-organic temporal relationship of symptoms to injury
- Non-organic symptoms, or symptoms which are improbable, absurd, overly specific or of unusual frequency or severity (e.g., triple vision)
- Disparate examinee history/complaints across interview or examiners
- Disparate corroboratory interview data versus examinee report
RESPONSE BIAS: Hallmark Signs

VI. Physical Exam Findings

- Non-organic sensory findings
- Non-organic motor findings
- Pseudo-neurologic findings in the absence of anticipated associated pathologic findings
- Inconsistent exam findings
- Failure on physical exam procedures designed to specifically assess exaggeration and malingering
VI. Physical Exam Findings (cont.)

- **Mismatch** between:
  - Pain and temperature exam - central pain only
  - ROM measurements in different positions
  - Physiologic parameters with subjective pain reporting
  - Physiologic parameters with reported &/or observed task effort
- Midline sensory deficits
- Patchy sensory/non-dermatomal deficits
VI. Physical Exam Findings (cont.)

- Disparity between Observed behaviors in Exam context versus Non-exam context
- Gait disturbance forward but not otherwise
- Give-away weakness
- Non-anatomic referred pain complaints
- Special tests: Hoover's Test, Bilateral Stimulation for sensory deficits, etc.
- Special procedures: dolorimetry, surface EMG, surface temperature
General Approaches to Response Bias and Invalid Performance Measurement

1) Symptom Validity Testing
   - Easy Presented as Hard
   - Forced Choice
   - Refined Measures
     - Word Memory Tests
     - Word Stem Completion Tests

2) Invalid Test Performance Patterns
   - WMS-R: Att/Con - Memory Ratio
   - Digits Forward vs Backwards
   - CVLT Recognition
   - WCST Perseverative Errors

3) Extra Test Behavioral Observation

4) Multiple Measure Indices

5) True, Valid Assessment: Confession, Surveillance
SOME MYTHS OF RESPONSE BIAS DETECTION

- It is EITHER/OR (Present/Not; Malingering/Not)
- Clinicians Can Reliably Assess IT
- Symptom Validity Tests (SVT) Measure IT
- SVT's are Valid and Predict Real Test Performance (extended myth: Real Tests Predict Real Life)
- Patients Take our Exams Seriously
- Customary Psych/Neuropsych/Medical Testing is Adequate For Assessing IT
Problems with Symptom Validity Measures

1) Poor Psychometric Research (reliability, validity)
2) Variable Group Membership (e.g., can have real disorder and exaggerate)
3) Limited Generalizability of analogue research (i.e., simulated malingerers vs externally validated malingerers; cf studying serial killers this way)
5) Questionable Generalizability of Findings (i.e., from one SVT to any other (SVT or real) test, or to actual symptoms, or across time; conversely, good effort on a SVT... )
6) Absence of Mutual Exclusivity (i.e., poor effort can occur in presence of real disorder, symptoms)
Problems with Symptom Validity Measures

7) Law of the Instrument operational definitions wherein "malingering" becomes what malingering" tests measure. (No definitions of "effort", multitrait, multimethod matrices, construct validity support? Assumed uniformity across diagnoses, litigation vs not, etc.)

8) Effects of Fatigue, Disinterest, Non-attended administration, Pain, on these measures have not even been addressed

9) High False Positive Rates with both simulators, and real patients in large clinical samples

10) Use of any current SVT / Index violates APA ethics and "APA Standards for Educational and Psychological Tests" with regard to diagnosis, decision making
Problems with Symptom Validity Measures

1) Psychometric shortcomings (i.e., test construction issues such as inadequate reliability and validity data and not meeting professional standards for educational and psychological tests;

2) Limited generalizability from findings on simulated malingerers (i.e., analogue research) to real malingerers;

3) Limited generalizability from one SVT to other SVTs or clinical tests in a battery;

4) Differential subtlety of measures;

5) Wide variability in research sample characteristics;

6) Confounding of exaggeration and real disorder in clinical groups;
Problems with Symptom Validity Measures cont.

7) Limited validation research on "effort" as a construct

8) Unknown specificity with regard to effects of fatigue, pain, disinterest, non-attended (computer) administration, etc.

9) Frequently high misclassification rates (i.e., false positives or false negatives), both experimentally and when tested clinically
Problems with Symptom Validity

Measures 

cont.

This summary of shortcomings should emphasize:

1) the need for caution in interpretation;

2) the importance of employing multiple data sources and making thoughtful inferences only after integration of behavioral observations, interview data, tests results, and collateral sources of information;

3) the need for further research.
Spector et al., 1999 Compared Performances Across Four Performance Pattern Indices (WAIS-R DS-Vocab; WMS-R Att - Mem; CVLT Recog-FreeRecal; SeashoreRhythmErr's) for:

- **N=136 Mod - Severe TBI**
  - 31% Failed 1 Measure
  - 8% Failed 2 Measures
  - 0% Failed 3 or 4

- **N=105 *presumptive malingerers* in compensation seeking group**
  - 83% Failed 3 or 4
  - 100% Failed 2 or More

The Solution???

See Next Page
Curtiss, Vanderploeg & Vipperman (1999; in press) for N=244 Compared 8 Performance Pattern Indices to Report Baserates of Malingering in questionable to severe TBI

- Only 2 of 8 had <= 10% False Positives (WMS-R; WCST)
- Review (med, chart, obs, etc.) of Index Classifed Malingerers:
  - Minimum 33% False Positive Rate for MTBI
  - nearly 100% FP rate for Mod- Severe TBI
- Using >1 Index did not alter False Positive Rates across groups

CONCLUSION: Base Rate Findings indicate that "risk of falsely labelling someone as malingering is unacceptably high with all of the neuropsychological test indices, whether used individually, or in combination."
Decision Making Theory: Diagnostic Formulation of Malingering

- **True Positive**: Appropriate Diagnosis of Pathology (Hit)
- **False Positive**: Failure to Diagnose Real Pathology / Inappropriate Diagnosis of Malingering (Miss)
- **False Negative**: Inappropriate Diagnosis of Pathology / Failure to Diagnose Malingering
- **True Negative**: Appropriate Diagnosis of Pathology (Rejection of Malingering Dx)

**Considerations**:
- Consequences of False Positive vs. False Negative
- Cost and Availability of Treatment Resources
- Salience, Strength of Reward of Pathology Diagnosis

**Diagnostic Decision**
- Accept
- Reject
We see what we look for. We look for what we know. - Goethe

The theories we choose determine what we allow ourselves to see. - Albert Einstein

We don't see things as they are, we see things as we are. - Anais Nin

When we don't even believe that something is possible or that it exists, we fail to see it at all. - Dorothy Otnow Lewis

For every complex problem there is an easy answer... And it is wrong. - H. L. Menchen

"The tendency to organize knowledge around a belief system, and then to defend that belief system against challenge, appears to be a fundamental human characteristic...."
## Decision Making in Malingering Assessment

<table>
<thead>
<tr>
<th>Environmental Conditions</th>
<th>Diagnostic Conceptualization</th>
<th>Diagnostic Decision Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>High vs. Low Reward for Clinical Diagnosis</td>
<td>Dichotomous (Black/White; Either/Or)</td>
<td>Less vs More frequent Diagnosis of Clinical Condition</td>
</tr>
<tr>
<td>Limited Resources</td>
<td>Personal Responsibility / MedicoLegal</td>
<td>Less Diagnoses for Less Easy to Treat or Less Clear Cut</td>
</tr>
<tr>
<td>Limited Resources</td>
<td>Medical &amp; Medico Legal</td>
<td>Treat Those with Clear Organic Conditions and/or Only Organic Conditions, with Medical Tx's</td>
</tr>
<tr>
<td>Limited Resources</td>
<td>Biopsychosocial</td>
<td>Treat Most Persons, and in a Holistic Manner</td>
</tr>
<tr>
<td>Limited Resources (e.g, Managed Care)</td>
<td>Neurobehavioral Therapist / Program Competence</td>
<td>Treat Most Persons with Evolution of More Sophisticated, Efficient, Powerful Rehabilitation Interventions</td>
</tr>
</tbody>
</table>
MOTIVATION ASSESSMENT PROFILE
(MAP) M.F. Martelli, 1997

Indicator
- 1. Digit Span (Floor Effect)
- 2. Arithmetic scale and Orientation scale Performance
- 3. Finger Tapping Test
- 4. Tactual Stimulation Performance
- 5. Finger Tip Number Writing - Errors
- 6. Finger Agnosia - Errors
- 7. Grip Strength
- 8. Speech Sounds Perception Test
- 9. Seashore Rhythm Test

Cutoff
- 1. SS < 7 / 4
- 2. 'near-miss'' (Ganser errors).
- 3. Unusually low w/o gross motor deficit
- 4. Errors bilaterally vs. laterally
- 5. **> 5
- 6. *> 3
- 7. Unusually low w/o gross motor deficit
- 8. *>17 errors (Poor)
- 9. *>8 errors
<table>
<thead>
<tr>
<th>Indicator</th>
<th>Cutoff</th>
</tr>
</thead>
<tbody>
<tr>
<td>10. WMS-R Malingering Index: Attentional Control Vs. Memory</td>
<td>10. Attentional Control Score &lt; Memory</td>
</tr>
<tr>
<td>12. List Learning Serial Order Effects</td>
<td>12. Abnormal patterns</td>
</tr>
<tr>
<td>14. Word Stem Priming Task Performance</td>
<td>14. Poor or unusual performance</td>
</tr>
<tr>
<td>15. Digit Span Memory: Testing Limits &quot;Chunking&quot;</td>
<td>15. Non-improvement with &quot;chunking&quot;</td>
</tr>
<tr>
<td>16. Rey Complex Figure and Recognition Trial</td>
<td>16. Atypical Recognition Errors (&gt;=2); Recognition Failure Error;</td>
</tr>
</tbody>
</table>
Indicator

- 17. Remote Memory Report
- 18. Wisconsin Card sorting Test
- 19. Categories Test
- 20. Full Scale IQ
- 21. General Neuropsych Deficit Scale (Reitan & Wolfson, 1988)
- 22. Performance on any Validated Symptom Validity Tests
- 23. Performance on Easy Tasks Presented as Hard
- 24. Time / Response Latency Comparisons Across Similar Tasks

Cutoff

- 17. Difficulties, especially if >= recent memory
- 18. Discrepant # Persev. Vs #Category Errors
- 19. Rare or "spike three" errors; Or > 1 Error I,II
- 20. Low (vs. expected, estimated, etc.)
- 21. **GNDS Score < 44
- 22. Poor Performance - low scores and/or unusual performance
- 23. Low scores or unusual errors
- 24. Inconsistencies across tasks
## Indicator
- **25. Symptom Self Report**
- **26. Comparisons for Inconsistencies Within Testing Session (Quantitative & Qualitative):**
  - Comparisons Across Testing Sessions (Qualitative, Quantitative)
- **27. Comparisons Across Testing Sessions (Qualitative, Quantitative)**
- **28. Patient Symptom Complaint Vs Significant Other**
- **29. Symptom Self Report: Early vs. Late Symptoms**
- **30. Inconsistencies in History Complaints, Performance**

## Cutoff
- **25. Discrepancies**
- **26. Within, Between Tasks**
  - Across Repetitions of same/parallel tasks,
  - Similar tasks under different motivational press
- **27. Poorer or inconsistent performances on re-testing**
- **28. High # of complaints; patient complaints > significant others’**
- **29. Early Symptoms reported late**
- **30. Inconsistencies across time, interviewer, etc.**
ASSESSMENT OF PSYCHOLOGICAL MEDIATORS OF ADAPTATION: A STRESS & COPING MODEL

INDIVIDUAL PATIENT VARIABLES

- Comorbid Coping Vulnerabilities
  - PTSD
  - Reactive Depression, Anxiety, etc.
  - Associated Psychosocial Stresses
- Premorbid Coping Vulnerabilities
### Clinical Differentiation of Malingered Posttraumatic Stress Disorder (PTSD)

<table>
<thead>
<tr>
<th>Symptom Expression</th>
<th>Genuine PTSD</th>
<th>Malingered PTSD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Relationship of Symptoms to Stressful Initiator</td>
<td>Minimized</td>
<td>Emphasized</td>
</tr>
<tr>
<td>Direction of Blame</td>
<td>Self</td>
<td>Others</td>
</tr>
<tr>
<td>Dream Themes</td>
<td>Helplessness or guilt</td>
<td>Grandiosity or power</td>
</tr>
<tr>
<td>Emotional Impact of Stress Initiator</td>
<td>Deny emotional impact</td>
<td>&quot;Act out&quot; alleged feelings</td>
</tr>
<tr>
<td>Elicitation of Stress Memories</td>
<td>Reluctant to tell memories</td>
<td>&quot;Relish&quot; telling memories</td>
</tr>
<tr>
<td>Quality of Guilt</td>
<td>survivor type related to specific incidents</td>
<td>Generalized type over more global survival</td>
</tr>
<tr>
<td>Response to Stress Initiator Associated Environments</td>
<td>Avoid</td>
<td>Do not avoid</td>
</tr>
<tr>
<td>Direction of Anger</td>
<td>Anger at helplessness</td>
<td>Anger at authority, life blocks, etc.</td>
</tr>
</tbody>
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M.F. Martelli, PhD (Adapted from Perlick, 1995)
Simulated or Exaggerated Incapacity
(Main & Spanswick, 1995)

Features Primarily Suggestive:
- Failure to comply with reasonable treatment
- Report of severe pain with no associated psychological effects
- Marked inconsistencies in effects of pain on general activities
- Poor work record; history of persistent appeals against awards
- Previous litigation

Features Not Primarily Suggestive:
- Mismatch between physical findings and reported symptoms
- Report of severe or continuous pain
- Anger
- Poor response to treatment
- Behavioral signs / symptoms
Vulnerability Models

of

Coping and
Disability

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<table>
<thead>
<tr>
<th>The Vulnerability To Disability</th>
<th>Rating</th>
<th>Scale</th>
<th>General Version</th>
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<tbody>
<tr>
<td>Increased Complaint Duration</td>
<td>Complaint Inconsistency / Vagueness</td>
<td>Previous Treatment Failure</td>
<td>Collateral Injury / Impairment</td>
</tr>
<tr>
<td>0= &lt;6Mths</td>
<td>0=Little</td>
<td>0=Insignificant</td>
<td>0=Insignificant</td>
</tr>
<tr>
<td>1= &lt;12Mths</td>
<td>1=Mixed</td>
<td>1=Mixed</td>
<td>1=Md/Moderate</td>
</tr>
<tr>
<td>2= &gt;12Mths</td>
<td>2=Mstdly Inconsistent</td>
<td>2=Mstdly or All Failures</td>
<td>2=Significant</td>
</tr>
</tbody>
</table>

Especially with expectation of chronicity, poor understanding of symptoms:
- Multiple vague variable sites; anatomically inconsistent; Sudden onset without accident or cause; not affected by weather; performing no work or chores; avoiding easy tasks but performing most hobbies, enjoys pain only occasionally;
- Especially with complaint of treatments worsening pain or causing injury, and expectation that future treatments will fail;
- Especially if silent and involving adaptation reducing impairments;
- Seizure disorder; Diabetes; Hypertension; Brain injury or stroke or other neurologic insult or vulnerability (esp. if undiagnosed); Pre-injury medication reliance; Older; Etc.
- >4X/Week Narcotic, Hypnotic or Benzodiazepine tranquilizer; Received inability to cope without medication;

Severity of Current Psychosocial Stress | Psychological Coping Liabilities | Victimization Perception | Social Vulnerability | Illness Reinforcement | VULNERABILITY SCORE |
<table>
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</tr>
</thead>
<tbody>
<tr>
<td>0=Non-significant</td>
<td>0=Few</td>
<td>0=Little</td>
<td>0=Little</td>
<td>0=Little</td>
<td>Tidal Points (Max: 22)</td>
</tr>
<tr>
<td>1=Mild/Moderate</td>
<td>1=Mild/Moderate</td>
<td>1=Mild/Moderate</td>
<td>1=Mild/Moderate</td>
<td>1=Mild/Moderate</td>
<td></td>
</tr>
<tr>
<td>2=Significant</td>
<td>2=Significant</td>
<td>2=Significant</td>
<td>2=Significant</td>
<td>2=Significant</td>
<td></td>
</tr>
</tbody>
</table>

Sum of Personal, Social, Financial, Emotional, Identity, Activity Stresses, Life Disruption, Premorbid Coping Style Disruption, etc. and including injury impairment. Prevented concomitant depression, post-traumatic anxiety, sanitization (and Repressive) defenses, emotional immaturity/troubles, with poor coping skills, Hypochondriacal traits (e.g. post-injury MMPI-3 > 85: pre-injury > 70); Passive Coping Style, Childhood vulnerabilities:
- Externalized ‘Blame’ for accident; disability, etc.; Perceived Nontreatment; Anger, Fear, Resentment, Disturb regarding accident, treatment; understanding between employer/doctor, etc. - esp. given characterologic tendencies regarding victimization;
- Lack of Family Support; Resources; Occupational Support (esp. if recent conflict, change); Lack of Community Support / Resources / Involvement; Lack of Employer, Coworker, Insurance, Legal Support, Etc.
- Secondary Gain Attention support in a dependency prone person. Accidents stressful or displacing life or job responsibilities or demands (esp. with recent or imminent job / job duty changes or reorganization); Financial Compensation (esp. if litigati

Martelli, 1996
Impairment and Disability Models that Include Response Bias / Motivation Factors
IMPAIRMENT: Each are scored from 0 to 2 points.

- ___Intensity
- ___Medication use
- ___Physical signs/symptoms
- ___Adjustment
- ___Incapacitation
- ___Recreation
- ___Miscellaneous activities of daily living
- ___Employment
- ___Number (frequency),
- ___Time (duration of attacks).

______Total IMPAIRMENT
**PTH IMPAIRMENT RATING**
Packard & Ham, 1994

- **Physician Modifiers** [0 to -4 for each]
  - 0- 1 or-2 -3 or -4
  - **M** good fair poor
  - **O** none mild marked
  - **D** minor some major

- ___ Motivation for evaluation and treatment
- ___ Overexaggeration/ incapacitation or family overconcern
  (out of proportion to findings
- ___ Degree of legal interest by patient and/or family.

  Total MODIFIERS Score: ____

  IMPAIRMENT SCORE: ___________
  - Total MODIFIERS Score: ___________ (subtract)
  = IMPAIRMENT RATING: ___________
PAIN IMPAIRMENT RATING
NADEP Adaptation Exercise, 1998

IMPAIRMENT: Each are scored from 0 to __ points.
- ___Intensity
- ___Medication use
- ___Physical signs/symptoms
- ___Adjustment
- ___Incapacitation
- ___Recreation
- ___Miscellaneous activities of daily living
- ___Employment
- ___Number (frequency),
- ___Time (duration of attacks).

_______Total IMPAIRMENT
PAIN IMPAIRMENT RATING
NADEP Adaptation of Packard & Ham, 1998

Physician Modifiers [0 to -4 for each]
- 0- 1 or-2 -3 or -4
- M good fair poor
- O none mild marked
- D minor some major

- Motivation for evaluation and treatment
- Overexaggeration/ incapacitation or family overconcern (out of proportion to findings)
- Degree of legal interest by patient and/or family.

Total MODIFIERS Score: _____

IMPAIRMENT SCORE: __________

- Total MODIFIERS Score: __________ (subtract)

= IMPAIRMENT RATING: __________
SCREENING FOR NON ORGANIC RESPONSES: Wadell Signs

1. Overreaction
   - Guarding/limping, bracing, rubbing affected area, grimacing, sighing

2. Tenderness
   - Widespread sensitivity to light touch of superficial tissue

3. Axial Loading
   - Light pressure to skull of standing patient should not significantly increase low back symptoms
4. Rotation
- Back pain is reported when shoulders and pelvis are passively rotated in the same plane

5. Straight Leg Raising
- Marked difference between leg raising in the supine and seated position

6. Motor and Sensory
- Giving way or cog wheeling to motor testing or regional sensory loss in a stocking or non dermatomal distribution (rule out peripheral nerve dysfunction)
Additional Non Organic Signs include:

- Lower extremity giving way
- No pain-free spells in past year
- Intolerance of treatments
- Emergency admissions to hospital with back trouble
Mensana Clinic Test Discrimination Success: "Organic" versus "Functional" Back Pain

\( X^2 = 133: p<0.0001 \)

<table>
<thead>
<tr>
<th>Test Scores (Categories)</th>
<th>Objective</th>
<th>Mixed</th>
<th>Exaggerating</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mensana (Hendler) Back Pain Screen</td>
<td>146/155 = 94%</td>
<td>43/57 = 75%</td>
<td>6/39 = 15%</td>
</tr>
<tr>
<td></td>
<td>9/155 = 6%</td>
<td>14/57 = 25%</td>
<td>33/39 = 85%</td>
</tr>
</tbody>
</table>
Recommendations for Enhancing Validity in Pain Complaint Assessment
Recommendations for Enhancing Validity in Assessments

- Utilize instruments with built-in symptom validity measures: Most major objective personality measures; Neuropsychological measures such as Memory Assessment Scales (Williams, 1992) and the Rey Complex Figure Test and Recognition Trial (Meyers & Meyers, 1995) that provide simulator performance data. Note: questionable ethics in administering and charging for very long tests designed solely for detection of potential motivation problems (esp if negative), with numerous generalization difficulties, protracted testing time and detracting from time for relevant measures and more comprehensive interview (examinee, collaborative others).

- Develop instruments with built-in symptom validity measures.

- Develop built-in symptom validity measures for existing instruments.
Recommendations for Enhancing Validity in Assessments (continued)

- Utilize comparisons with published patterns and indices indicating sub-optimal test performance (e.g., Wechsler Memory Scale - Revised General Memory vs. Attention/Concentration index (Mittenberg, 1993); see Trueblood & Schmidt (1993), Nies and Sweet (1994) for a review).

- Employ shorter symptom validity tests in order to minimize possibility of negative reactions owing to the nature of protracted (i.e., ad nauseum) participation in easy, boring tasks.

- Employ more credible and less well known symptom validity measures. Note: Hiscock - looks easy and obvious and patients often comment (e.g., "Boy, this is easy...just remember the first number from the list").; Rey 15 Item test is also somewhat apparent, and is even discussed in law journals.
Recommendations for Enhancing Validity of Assessments (cont.)

- Vary measures that are employed, in order to prevent discrimination of real tests from symptom validity measures. Notably, publication of these tests has led to increased recognition by examinees, attorneys, clients, support groups, internet groups, and so on.

- Apply multiple strategies for assessing motivation, especially when cutoff score approaches are employed, and include qualitative and qualitative measures. Integration of contextual information, history, behavioral observations, interview and collaborative data, personality and coping data with measures of effort or performance and current tests data, provides the best information for estimating the degree of effort exerted, and the degree to which test results are reliable and valid.
Rely primarily on MD's and PhD's for both interviewing and testing, with only limited employment, greatly decreased reliance on technicians. Notably, experienced MD's, PhD's who test and interview are infinitely more capable of:

- (a) Integrating interview and personality and emotional assessment data and inferences, with more sophisticated clinical observations during testing;
- (b) Adapting more creative modifications of testing procedures given suspicion of low motivation (e.g., chunking, recognition adaptations for recall of information), as well as modifications to the testing process (e.g., provision of corrective feedback; instruction) to increase motivation and optimize effort;
- (c) Benefiting from probability that examinees will be less likely to believe they can fake out the 'doctor';
- (d) avoiding possible symptom exaggeration owing to fear that problems will be missed by a non-doctoral testing technician.
Recommendations for Enhancing Validity in Assessment (*continued*)

- **Increase administration of tests by clinicians who actually see, for treatment, the types of patients they assess.** This helps assure more adequate clinical skills for detecting sub-optimal performance, as well as collection of internalized tracking data to allow validation of previous inferences across time, and continuous self-correction and increased internalized norms regarding ecological and predictive validity of psych/neuropsych measures.

- **Ensure that important general variables affecting motivation are adequately assessed during an interview that is concluded prior to assessment.** Specifically, assess the impact of anger or blame and feelings of resentment or victimization (e.g., Rutherford, 1989), as well as the other variables shown in the literature to be associated with poor recovery and adaptation to impairments (e.g., Martelli, et al, in press).
Enhancing Validity in Assessment (continued)

- Always assess, in addition to emotional and motivational issues, interest/disinterest in the testing process, and any obstacles or impediments to optimal effort and performance.

- Prepare examinees before beginning testing. Employ understanding, as well as education, to prepare examinees to perform to their best ability. Emphasize how tests are used with interview, and if less than best effort is made, credibility on interview is lost. Emphasize interview data and corroborative data and functional abilities as important as testing.

- Establish rapport and attempt to establish a working relationship. Even in cases of adversarial motivation, valid data collection requires a collaborative effort. Importantly, some social psychology literature suggests that dissimulation might be less likely given better rapport. Be on guard by addressing potential sources of bias directly, and providing feedback and education and clarification.
Enhancing Validity in Assessment (continued)

- Do not freely share relevant trade secrets (e.g., information about symptom validity tests, or known patterns of performance) with referral sources, attorney's, non clinicians. These adhere to a completely different set of professional ethics. Notably, several recent law publications recommend preparing clients for testing by counseling them with this information.

- Remain aware that, in science and medicine, things are rarely either-or, clear cut, or unidimensional. Attorneys, decision making agencies often promote either/or, black/white conceptualizations, and prefer to hire and pay professionals inclined to such conceptualizations. They seek out less sophisticated, artificially dichotomous models for conceptualizing about the multi-factorial nature of contributors to test results, or brain injury occurrence and its effects, or motivation and malingering.
Recommendations for Enhancing Validity in Assessment (continued)

- Avoid simplistic conceptual models and dichotomous approaches to assessing motivation/effort and malingering. Such approaches usually rely on a cutting score for one or two measures. Note that cutting scores, by their nature (Dwyer, 1996) always entail judgment; inherently result in misclassification; impose an artificial dichotomy on an essentially continuous variables; and "true" cut scores do not exist.
Recommendations for Enhancing Validity in Assessment (continued)

Employ more sophisticated, more continuous conceptualizations of motivation and response bias using multiple independent measures and estimated effort. Employ a reasonably sophisticated model that conceptualizes motivation and effort as continuous variables that can vary across tests, settings, and occasions. Utilize and devise models that measure degree of apparent motivation and effort, using multiple data sources, and estimate confidence levels in inferences given consideration of the multiple factors that contribute to test results. Employ similarly sophisticated models for assessing persistent impairments, adaptation to impairments, disability and so on. Probably statements based on multiple measures are probably best.
Spend time with patients and try to get to know them from a motivational, emotional status, and personality and coping style perspective. If motivation seems poor, confront, vs. proceed with GIGO - this is not "gotcha". We can't assume that everyone takes our tests seriously, should be as honest or effortful on our tests as we would like, or that we won't have to work at getting them interested or motivated.
Recall is often weak, and calling it inconsistency is a setup. Long hx of working with dx gives you real feel for real vs. non. Note: contralateral side of injury usually weakens as well, as found through neuro exams over long history....
That's all Folks!!