POST TRAUMATIC STRESS DISORDER
LIFE AFTER TRAUMA IN THE 21ST CENTURY

Metropolitan Underwriting Discussion Group - 2011

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VP & Medical Director
ANXIETY: An unpleasant emotional state consisting of psycho-physiologic responses to the anticipation of real or imagined danger.
Origin of Anxiety Disorders

Unique human survival requirements include:

- Ability to predict circumstances
- Ability to respond to threats

Inability to predict or respond → ANXIETY
DSM-IV Classification of Anxiety Disorders

- Panic Disorder
- PTSD
- Specific Phobia
- Social Phobia
- Generalized Anxiety Disorder
- OCD
POST TRAUMATIC STRESS DISORDER
The complex somatic, cognitive, affective, and behavioral effects of psychological trauma.
Diagnosis: DSM IV Essential Criteria

**Criterion A:**

Exposure to traumatic event that included both:

- Actual or threatened death or serious injury to self or others

AND

- Response involved intense fear, helplessness or horror
Diagnosis: DSM IV Essential Criteria

Criterion B:

Traumatic event persistently re-experienced by one or more of

- Recurring intrusive thoughts
- Recurring disturbing dreams
- Recurrent re-living the event (flashbacks, etc)
- Intense distress on exposure to cues
Diagnosis: DSM IV Essential Criteria

Criterion C:

Avoidance of reminder stimuli plus new numbing of general responsiveness by three or more of

- Avoiding thoughts, feelings or conversations
- Avoiding activities, places or persons
- Inability to recall important aspects of the trauma
- Feeling detached or estranged from others
- Restricted range of affect (e.g., unable to have loving feelings)
- Sense of foreshortened future
Diagnosis: DSM IV Essential Criteria

**Criterion D:**

Persistent symptoms of increased arousal

- Sleep difficulty
- Irritability or anger outbursts
- Hypervigilance
- Exaggerated startle response
Diagnosis: DSM IV Essential Criteria

Criterion E:

Duration of Disturbance > 1 month

- Acute: < 3 months duration
- Chronic: 3 months or longer
- Delayed onset – onset 6 months or more after stressor
Diagnosis: DSM IV Essential Criteria

**Criterion F:**

Disturbance causes clinically significant distress in social, occupational or other important areas of function.
PTSD DEFINING CHARACTERISTICS
PTSD - Defining Characteristics

Exposure to extreme traumatic stressor

- Actual or threatened death or serious injury
- Learning about the unexpected or violent death or injury of a loved one or close associate
PTSD - Defining Characteristics

Stressor causes intense fear, horror or sense of helplessness

- Persistent avoidance of stimuli reminiscent of the event
- Persistent re-experiencing of the event
- Numbing of normal emotions
- Persistent hyper-arousal

Full symptom picture lasting >1 month and associated with distress, social or occupational dysfunction
PTSD Subtypes

Trauma occurs

Passage of Time

1 month 1-3 months 3+ months Onset after 6 months

Acute Stress Disorder Acute PTSD Chronic PTSD Delayed Onset PTSD
Classic PTSD Precipitating Events

- Violent Assault
- Rape, Incest, Childhood Abuse
- Kidnapping
- Military Combat Exposure
- Natural & Man-made Disasters
- Severe MVA
- Diagnosis of Life Threatening Illness
Special Risk Populations

- POW’s
- Refugees from war torn areas
- Adults living in high crime areas
- Victims of terrorist actions
- ? Some individuals linked to major events by the media
Lifetime Prevalence for PTSD (NCS)

Overall: 6-12%

Female to Male: 2-4:1
# Incidence / Prevalence

**Life Time Risk:**

- 1-14% of general population
- 3-58% for high risk groups

### Cases

<table>
<thead>
<tr>
<th>Event</th>
<th>Incidence</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gulf War</td>
<td>3% initially with 8% at two year follow up</td>
</tr>
<tr>
<td>Oklahoma City 1995</td>
<td>30% +</td>
</tr>
<tr>
<td>NYC 9/11</td>
<td>20% +</td>
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</tbody>
</table>

Civilian correlates - Domestic Violence, Child Abuse, Severe MVA
Incidence After an Event by Gender

- MVA
  - Male: 6.3%
  - Female: 8.8%

- Disaster
  - Male: 3.7%
  - Female: 5.4%

- Sudden Death
  - Male: 12.6%
  - Female: 16.2%

- Assault
  - Male: 1.8%
  - Female: 21.3%

- Molestation
  - Male: 12.2%
  - Female: 26.5%

- Rape
  - Male: 65.0%
  - Female: 46.0%
PTSD ADDITIONAL MANIFESTATIONS
PTSD: Possible Co-Morbidities

- Anxiety
- Depression
- Psychosis
- Anxious Depression
- Substance Abuse
- Insomnia
- Phobias
- Self-Destructive Behavior
PTSD: Possible Additional Manifestations

- Somatic complaints
- Feelings of ineffectiveness, shame, despair, hopelessness, guilt, vulnerability
- Change in previously held beliefs
- Change in personality
- Relationship issues
  - Intimate
  - Social
  - Work, etc.
PTSD PREDICTORS
Predictors of PTSD Development

- Pre-Trauma
- Peri-Trauma
- Post-Trauma

PTSD
Pre-Trauma Predictors

**FEMALES**
- Female gender
- Younger age at trauma
- Low SES, education
- Trauma Hx
- Childhood abuse
- Psychiatric Hx

**MALES**
- Younger age at trauma
- Low SES, education
- Trauma Hx
- Childhood abuse
- Psychiatric Hx
- Ethnicity
Peri-Trauma Predictors

- Proximity & personal nature of threat
- Severity
- Chronicity
- Dissociation at time of trauma
- Perceived helplessness
- Potential of death or serious outcome

Brewin, CR & al.
Post-Trauma Predictors

- Inadequate social support
- Severity of symptoms
- Lack of early intervention, access to care
- Perceived shame
- Poor coping skills
- Recovery-related stressors, other life stressors

Susceptibility to PTSD

- Nature of inciting event
- Gender (female : male ratio 2-4:1)
- Culture – reaction to event, etc.
- Social – inadequate social support system, coexistent socioeconomic stress
- Genetics: PMH or FH of psychiatric illness
- Sensitization – prior exposure to trauma
PTSD CO-MORBIDITY
Co-Morbidities

PTSD

- Panic 9.9%
- Major Depression 48.2%
- GAD 15.9%
- Agoraphobia 19.25%
- Social Phobia 29.9%
- Alcohol Abuse or Dependence 39.9%

Kessler & al.
PTSD Psychiatric Co-Morbidities

- Depressive disorders
- Anxiety disorders
- Substance abuse
- Somatization
- TBI

85% have at least one co-morbidity
> 60% have more than one
Impact: PTSD and Co-Morbidities

- Suicide risk: ~20% of PTSD patients may attempt
- Share mortality risks of psychiatric disorders
  - Increased accident risk
  - Effects of substance abuse, etc.
- Significant medical costs to society
  - Lost productivity/disability ($3B in U.S.)
  - Similar to depression
- Increased risk of “dropping out”, marital discord, divorce, disability, unemployment, etc.
PTSD – NATURAL HISTORY AND CASE STUDY – COMBAT TROOPS
Incidence Rates:
Combat Troops Returning from Iraq/Afghanistan

- 11-17% screen positive for PTSD on return
- 60% see improvement at 3-6 months
  - c/w Acute Stress Disorder (ASD) or Acute PTSD
  - 30-40% longer term effects
- Combat troops surveyed 3-6 months after return
  - Larger percentage screen positive for PTSD symptoms than upon return
  - Higher incidence in those with multiple deployments
Incidence Rates: Wounded Combat Troops

- Much higher % screen (+) for PTSD on return than among other returning troops
- Percentage with PTSD increases with severity of injury
- Prevalence increases during rehab process
- High likelihood in those with diagnosis of ‘Mild Traumatic Brain Injury’
PTSD Diagnostic Tools

- Targeted interview
- DoD Post Deployment Health Reassessment (PDHRA)
- MMPI
- PTSD checklist (PCL)
- Primary Care PTSD screen (PC-PTSD)
- Clinician administered PTSD scale (CAPS)
- PTSD self-test
### PTSD CheckList – Civilian Version (PCL-C)

**Client’s Name:**

Instruction to patient: Below is a list of problems and complaints that veterans sometimes have in response to stressful life experiences. Please read each one carefully, put an "X" in the box to indicate how much you have been bothered by that problem in the last month.

<table>
<thead>
<tr>
<th>No.</th>
<th>Response</th>
<th>Not at all</th>
<th>A little bit</th>
<th>Moderately</th>
<th>Quite a bit</th>
<th>Extremely</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.</td>
<td>Repeated, disturbing memories, thoughts, or images of a stressful experience from the past?</td>
<td></td>
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<tr>
<td>2.</td>
<td>Repeated, disturbing dream of a stressful experience from the past?</td>
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<tr>
<td>3.</td>
<td>Suddenly acting or feeling as if a stressful experience were happening again (as if you were reliving it)?</td>
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<td>4.</td>
<td>Feeling very upset when something reminded you of a stressful experience from the past?</td>
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<tr>
<td>5.</td>
<td>Having physical reactions (e.g., heart pounding, trouble breathing, or sweating) when something reminded you of a stressful experience from the past?</td>
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<td>6.</td>
<td>Avoid thinking about or talking about a stressful experience from the past or avoid having feelings related to it?</td>
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<td>7.</td>
<td>Avoid activities or situations because they remind you of a stressful experience from the past?</td>
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<td>8.</td>
<td>Trouble remembering important parts of a stressful experience from the past?</td>
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<td>9.</td>
<td>Loss of interest in things that you used to enjoy?</td>
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<tr>
<td>10.</td>
<td>Feeling distant or cut off from other people?</td>
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<tr>
<td>11.</td>
<td>Feeling emotionally numb or being unable to have loving feelings for those close to you?</td>
<td></td>
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<tr>
<td>12.</td>
<td>Feeling as if your future will somehow be cut short?</td>
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<td>13.</td>
<td>Trouble falling or staying asleep?</td>
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<td>14.</td>
<td>Feeling irritable or having angry outbreaks?</td>
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<td>15.</td>
<td>Having difficulty concentrating?</td>
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<td>16.</td>
<td>Being “super alert” or watchful on guard?</td>
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<tr>
<td>17.</td>
<td>Feeling “jumpy” or easily startled?</td>
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_PCL-M for DSM-IV (11/15/94) Weathers, Litz, Huska, & Keane National Center for PTSD - Behavioral Science Division_

This is a Government document in the public domain.
PTSD TREATMENT GOALS
Treatment Goals

- Reduce core symptoms
- Improve quality of life
- Reduce disability
- Improve or resolve co-morbid conditions
- Avoid relapse
- Reduce morbidity & mortality risk

Reduce core symptoms

Improve quality of life

Reduce disability

Improve or resolve co-morbid conditions

Avoid relapse

Reduce morbidity & mortality risk
Treatment Modalities

- Early Appropriate Intervention
- Supportive Therapy
- Cognitive Behavioral Therapy
- Virtual Reality Exposure (VRE) therapy
- Combined Approach Often Required
- Pharmacotherapy

Often combined.
Natural History of PTSD

1/3 better in 3-6 months

1/3 better in 2 years

1/3 Long lasting effects

Relapse(s) possible
Pharmacotherapy Choices

- **First Line:** SSRI’s
  - Fluoxetine, paroxetine, sertaline, venlafaxine (Prozac, Paxil, Zoloft, Effexor)

- **Second Line:**
  - Fluvoxamine (SSRI), mirtazipine, moclobemide, phenelzine (MAO) (Luvox, Remeron, Manerix, Nardil)
  - Adjuncts: anti-psychotics risperidone, olanzapine (Risperdal, Zyprexa)

- **Third Line:**
  - Amitryptyline, imipramine (Elavil, Tofranil)
    - Adjuncts: carbamazepine, gabapentin, clonidine, trazodone, bupropion (Tegretol, Neurontin, Catapres, Desyrel, Wellbutrin)

- **Not Recommended:** monotherapy with alprazolam, clonazepam, olanzapine, etc (Xanax, Klonopin, Zyprexa, etc)
PTSD UNDERWRITING CONSIDERATIONS
Underwriting Considerations

- Confirm diagnosis
  - DSM criteria
- PTSD morbidity & mortality risks associated with co-morbid conditions
  - Depression, suicide, etc
  - Other psychiatric disorders
- Substance abuse
- Impulsive behavior
PTSD Risk Assessment

- Pre-morbid history
- Type of Trauma
- Time since trauma (late onset possible!)
- Severity of symptomatology
- Therapy provided
- Compliance with and response to therapy
- Likelihood for future trauma exposure
PTSD Risk Assessment

- PMH – trauma(s), ED visits, sleep disorder, substance abuse, prior psych disorders, etc
- Family history – psych, etc.
- Social history – stability, support resources, work history
- Exam – BP, pulse, ROS: weight changes, sleep disorders, flashbacks, MVR
- Lab – LFT’s, MCV, lipids, cotinine, drug screen
- Medications required
PTSD Risk Assessment

Don’t forget that late onset can occur...

66% fully recover - time varies, generally 6-24 months

33% never fully recover – persistent increased morbidity and mortality risk

Be aware of predictors for better outcome - Pre-, peri- and post-trauma factors
Co-morbidities remain highly important
Summary

PTSD Defining Characteristics

Underwriting Considerations

Natural History

Treatment Options

Severity, Duration, Proximity

At Risk Populations

Co-factors Affecting Susceptibility
THANK YOU
PTSD Resources & References

1. 309.81 DSM-IV – Anxiety Disorders, PTSD


4. Anxiety Disorders Association of America, PTSD Self Test, etc www.adaa.org

5. Substance Abuse & Mental Health Services Administration www.samhsa.gov/


7. Increased Framingham 10 Year Risk of CHD…Folsom, et al, Schizophr Res 2010 Nov 18


11. www.UpToDate.com