Post Traumatic Stress Disorder (PTSD): Stuck in time

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‘Billy is spastic in time, has no control over where he is going next, and the trips aren't necessarily fun. He is in a constant state of stage fright, he says, because he never knows what part of his life he is going to have to act in next’ (2.1.5)
Relationships with commercial interests/disclosures:

- Consulting Fees: Medaca Health Group – Health Officer
- Other: I stole an ‘Oh Henry’ bar from Gold Bar Drugs when I was ten (Whit Lancaster dared me to do it)
Learning Objectives

- Historical references
- Review the Diagnostic Criteria
- Demographics of PTSD
- Pharmacological Tx
- Psychotherapeutic Tx
“No country, however rich, can afford the waste of its human resources. Demoralization caused by vast unemployment is our greatest extravagance. Morally, it is the greatest menace to our social order.”

- Franklin D. Roosevelt
“What has been will be again, what has been done will be done again; there is nothing new under the sun”

Ecclesiastes 1:9
“Thy spirit within thee hath been so at war
And thus hath so bestirred thee in thy sleep,
That beads of sweat have stood upon thy brow
Like bubbles in a late-disturbed stream;
And in thy face strange motions have appeared,
Such as we see when men restrain their breath on
some great sudden hest.

O, what portents are these?
Some heavy business hath my lord in hand,
And I must know it, else he loves me not”
—*Henry IV, Part 1* (2.3.39-67)
Symptoms of trauma-related mental disorders have been documented since at least the time of the ancient Greeks.

Austrian physician Josef Leopold Auenbrugger (1761) coined the term "nostalgia".

In the American Civil War, "Soldier's heart" or "irritable heart" was marked by a rapid pulse, anxiety, and trouble breathing...one of the earliest documented use of Lithium to control symptoms.

Charles Dickens was involved in a rail accident in 1865 and wrote about symptoms of sleeplessness and anxiety as a result of the trauma.
The term "posttraumatic stress disorder" came into use in the 1970s in large part due to the diagnoses of U.S. military veterans of the Vietnam War.

It was officially recognized by the American Psychiatric Association in 1980 in the third edition of the *Diagnostic and Statistical Manual of Mental Disorders* (DSM-III).
A Case Study - Shawn P.

- 28 year old married x 5 years fellow, Fredericton, NB, 2 kids, Siberian husky named Alfredo (age 5)
- 6 year Hx of working as EMS (paramedic)
- Good work history
- Reports a particularly distressing call involving the aftermath of arriving on the seen of a self-inflicted gunshot wound to the head
- Within 4 weeks, developed marked anxiety symptoms including sleeplessness
A Case Study - Shawn P.

- ‘I always been a worker’
- I always been strong enough to get through stuff’
- ‘Even when I cut my finger off, I went to work the next day’
Learning Point 1 – Ensure the Diagnosis

‘Hmmm…I don’t like the look of that eye’
Learning Point 1 – Ensure the Diagnosis

- Over 75% of Canadians reported exposure to a significantly traumatic event
- Roughly 60% of men and more than 70% of women experience at least one traumatic event in their life
- 75 to 85% of those exposed to a traumatic event DO NOT develop PTSD
- Men most frequently report rape, combat, and childhood physical abuse
- Women most frequently report rape, sexual molestation, physical attack, being threatened with a weapon and childhood physical abuse
Normal Anxiety

- Anxiety is essential to life
- A desire to reduce anxiety keeps us fed, keeps us procreating, keeps us sitting through a dead boring lecture
- It compels us to carry out certain acts that forestall or prevent danger
Learning Point 1 – Ensure the Diagnosis

‘Anxiety is the hand-maiden of creativity’

TS Elliot
PATHOLOGICAL ANXIETY:

- Too much of a good thing
- Uncontrollable
- Chronic & Persistent
- Exaggerated
- **Impairs functioning**
  (at work, at home, in relationships)
- i.e. obsessionality

Learning Point 1 – Ensure the Diagnosis
Learning Point 1 – Ensure the Diagnosis

Acute Stress Response vs. Acute Stress Disorder vs. Post Traumatic Stress Disorder
The Acute Stress Response

Intensity of Impairing Symptoms

Mild emotional/cognitive disturbances

NO Functional Impairment

Days

Trauma
Learning Point 1 – Ensure the Diagnosis
Acute Stress Disorder

A. Exposure to actual or threatened death, serious injury or sexual violence in one (or more) of the following ways:

1. Directly experiencing the traumatic event(s)
2. Witnessing, in person, the event(s) as it occurred to others
3. Learning that the traumatic event(s) occurred to a close family member or close friend. In cases of actual or threatened death of a family member or friend, the event(s) must have been violent or accidental
4. Experiencing repeated or extreme exposure to aversive detail(s) of the traumatic event(s) (e.g. first responders collecting human remains: police officers repeatedly exposed to details of child abuse)
Learning Point 1 – Ensure the Diagnosis

Acute Stress Disorder

Any 9 of:

INTRUSION SYMPTOMS

1. Recurrent, involuntary, and intrusive distressing memories of the traumatic event(s)
2. Recurrent, distressing dreams in which the content and/or affect of the dream are related to the traumatic event(s)
3. Dissociative reactions (e.g., flashbacks) in which the individual feels and acts as if the traumatic event(s) were recurring
4. Intense or prolonged psychological distress at exposure to internal or external cues that symbolize or resemble an aspect of the traumatic event(s)
Learning Point 1 – Ensure the Diagnosis
Acute Stress Disorder

NEGATIVE MOOD
1. Persistent negative emotional state

DISSOCIATIVE SYMPTOMS
1. Derealization – an altered sense of the reality of one's surroundings
2. Inability to remember an important aspect of the traumatic event(s)

AVOIDANCE
1. Efforts to avoid distressing memories, thoughts and feelings of the event
2. Efforts to avoid external cues
Learning Point 1 – Ensure the Diagnosis

Acute Stress Disorder

HYPERAROUSAL

1. Irritable behavior/angry outbursts
2. Hypervigilance
3. Exaggerated startle response
4. Difficulty concentrating
5. Difficulties with falling or staying asleep

3 days to one month after trauma
Learning Point 1 – Ensure the Diagnosis

Acute Stress Disorder

Risk Factors?

1. Pre-trauma risk factors (previous adverse events, psychological vulnerability)
2. Peri-trauma risk factors (severity of stressor, being injured)
3. Post-trauma risk factors (the amount of support received afterwards, further traumatizing events)
Learning Point 1 – Ensure the Diagnosis

- Only 1 in 12 patients meeting criteria for PTSD are accurately Dx in a general psychiatric outpatient clinic
- Approximately 12 to 39% of patients in primary care settings meet diagnostic criteria for PTSD
- PTSD is the most frequently under-recognized and untreated anxiety disorder in primary care due to:
  - Presence of comorbidities
  - Failure to ask patients about traumatic experiences
  - A limited amount of time to obtain a complex medical and trauma history
  - Stigma
Learning Point 1 – Ensure the Diagnosis

- Exposure to Extreme Traumatic Event
- Functional Impairment
- Duration > 1 month
- Specific Symptoms:
  - Re-experiencing
  - Avoidance
  - Numbing
  - Hyper-arousal

Art therapy project created by a U.S. Marine with posttraumatic stress disorder
A. Exposure to actual or threatened death, serious injury or sexual violence in one (or more) of the following ways:

1. Directly experiencing the traumatic event(s)
2. Witnessing, in person, the event(s) as it occurred to others
3. Learning that the traumatic event(s) occurred to a close family member or close friend. In cases of actual or threatened death of a family member or friend, the event(s) must have been violent or accidental
4. Experiencing repeated or extreme exposure to aversive detail(s) of the traumatic event(s) (e.g. first responders collecting human remains: police officers repeatedly exposed to details of child abuse)

Note: Criteria 4A does not apply to exposure through electronic media, television, movies, or pictures, unless this exposure is work-related
**Learning Point 1 – Ensure the Diagnosis**

B. Presence of one (or more) of the following intrusion symptoms associated with the traumatic event(s), beginning after the traumatic event(s) occurred:

1. Recurrent, involuntary, and intrusive distressing memories of the traumatic event(s)
2. Recurrent, distressing dreams in which the content and/or affect of the dream are related to the traumatic event(s)
3. Dissociative reactions (e.g., flashbacks) in which the individual feels and acts as if the traumatic event(s) were recurring
4. Intense or prolonged psychological distress at exposure to internal or external cues that symbolize or resemble an aspect of the traumatic event(s)
5. Marked physiological reactions to internal or external cues that symbolize or resemble an aspect of the traumatic event(s)
C. Persistent avoidance of stimuli associated with the traumatic event(s), beginning after the traumatic event(s) occurred, as experienced by one or both of the following:

1. Avoidance of or efforts to avoid distressing memories, thoughts or feelings about or closely associated with the traumatic event(s)

2. Avoidance of or efforts to avoid external reminders (people, places, conversations, activities, objects, situations) that arouse distressing memories, thoughts or feelings about or closely associated with the traumatic event(s)
Learning Point 1 – Ensure the Diagnosis

D. Negative alterations in cognitions and mood associated with the traumatic event(s) beginning or worsening after the traumatic event(s) occurred, as evidenced by two (or more) of the following:

1. Inability to remember an important aspect of the traumatic event(s)
2. Persistent and exaggerated negative beliefs or expectations about oneself, others, or the world
3. Persistent distorted cognitions about the cause or consequences of the traumatic event(s) that lead the individual to blame himself/herself or others
4. Persistent negative emotional state
5. Markedly diminished interest or participation in significant activities
6. Feelings of detachment or estrangement from others
7. Persistent inability to experience positive emotions
Learning Point 1 – Ensure the Diagnosis

E. Marked alterations in arousal and reactivity associated with the traumatic event(s), beginning or worsening after the traumatic event(s) occurred, as evidenced by two (or more) of the following:
   1. Irritable behavior/angry outbursts
   2. Reckless or self-destructive behavior
   3. Hypervigilance
   4. Exaggerated startle response
   5. Difficulty concentrating
   6. Difficulties with falling or staying asleep

F. Symptoms for greater than one month

G. Impairment in functioning

H. Disturbance is not due to the physiological effects of a substance
Learning Point 1 – Ensure the Diagnosis

Specify whether:

With Dissociative Symptoms:
1. Depersonalization: Persistent or recurrent experiences of feeling detached from, and as if one were an outside observer of, one’s mental processes or body
2. Derealization: Persistent or recurrent experiences of unreality of surroundings

Specify if:

With Delayed Expression:
Full Dx criteria are not met until 6 months after the event
Learning Point 1 – Ensure the Diagnosis

- Clinician Administered PTSD scale (CAPS)
- PTSD Symptom Scale Interview
- Modified PTSD Symptom Scale (MPSS-SR (self-assessment))
- PTSD Checklist (PCL)(self-assessment)
- Trauma Symptom Inventory – 2 (TSI-2)
Endorsed that he is aware of similar effect on another EMS attendant who attended the call

Spoke of one of his co-workers being off work for the past year due to similar symptoms
Learning point 2 – High Prevalence

- In the United States about 3.5% of adults have PTSD in a given year
- Results from the most recent Canadian Community Health Survey of 2012 suggested a one-year prevalence rate of PTSD of 1.7% among the Canadian population
- It is 2x more common in women than men
- Estimates of 9.2% lifetime prevalence
- Onset is typically between mid to late 20’s
- Most individuals report full symptoms lasting more than 1 year
One-Year PTSD Prevalence Rates: General Population.
Sources: Kessler, Chui, Demler et al. (2005); Hinton & Lewis (2011); Statistics Canada (2013)
Higher lifetime PTSD prevalence rates for several high-risk groups including military personnel, police, corrections workers, firefighters, and paramedics.

Rates range from 8% to 32%.

In Canada, 12 to 23 thousand volunteer first responders, may have experienced PTSD in their lifetimes, given the estimates of prevalence rates and the size of specific population groups in 2010.
Learning point 2 – High Prevalence

Lifetime PTSD Prevalence Rates: Specified Canadian Populations.

Sources: Van Ameringen, Mancini, Paterson et al. (2008); Boulos & Zamorski (2013); Marchand, Boyer, Martin et al. (2010); Asmundson & Stapleton (2008); Rosine (1992); Stadnyk (2004); Corneil, Beaton, Murphy et al. (1999); Regehr, Goldberg & Hughes (2002).
A Case Study - Shawn P.

- Working as an EMS is safety sensitive
- Fam Doc Dx of ‘Anxiety’ and suggests 4 weeks off from work, zopiclone Rxed for sleep
- After 4 weeks no better and disability is extended x 4 more weeks
Learning point 3 - Disabling

- Impairments in occupational and academic functioning, marital and family functioning, parenting
- High rates of chronic pain, sexual dysfunction, cognitive impairment
- Higher rates of homelessness and unemployment
- Suicide attempts increased 2-3x
- Significant functional impairments, increasing with the severity of the symptoms
In addition to these anxiety symptoms, Shawn endorsed a several month struggle with sad mood, anhedonia, poor sleep, concentration, energy, appetite along with thoughts of wishing he were dead.

Moreover, he disclosed he had a past history of excess alcohol use about 5 years ago and attended *Alcoholics Anonymous* for about a year.

He resumed what he described as social ‘alcohol’ use thereafter for years.

He reluctantly disclosed that his use has ramped up to daily use over the past several months as he turned to alcohol as a means of coping.
In a 12-month period, almost 50% of adults in the United States with any psychiatric disorder had 2 or more disorders

88% of men and 79% of women with PTSD have at least one comorbid psychiatric disorder

Major depressive disorder (50%)

Alcohol abuse or dependence (50% of men and 30% of women)

These patients have greater severity of symptoms, increased risk of suicidality, a more chronic and persistent course, and more functional impairment
Learning Point 4 – Comorbidity

Co-morbidity in Post Traumatic Stress Disorder, i.e. other disorders suffered by those with PTSD

- Male
- Female

A Case Study - Shawn P.

- Rx by MD of paroxetine and prn lorazepam
- Gradually increasing dose of paroxetine (some D/C symptoms when non-compliant)
- Shawn continued to remain quite symptomatic
- Switched to LTD
Learning Point 5 – Optimize Rx

- First line - fluoxetine, paroxetine, sertraline, venlafaxine XR
- Second line – fluvoxamine, mirtazapine, phenalzine
- Third line – amitriptyline, aripiprazole, buspirone, carbamazepine, desipramine, escitalopram, imipramine, lamotrigine, moclobemide, quetiapine, risperidone, topiramate, trazodone

- Adjunctive Tx
  - second line - zopiclone, olanzepine, risperidone
  - third line – clonidine, gabapentin, pregabalin

(Canadian Clinical Practice Guidelines for the management of anxiety, posttraumatic stress and obsessive-compulsive disorders, 2014)
One of the most common recommendations I make in consults is to ensure Rx dose is maximized.

Under treatment is one of the main reasons for unresolved symptoms.

Higher doses of serotonergic (SSRI, SNRI, SARI, TCA, MAOI) antidepressants required to rein in significant anxiety symptoms.

Risks vs. Benefits (little risk with pushing the dose with possible great benefit).
Learning Point 5 – Optimize Rx

What a downer...
Learning Point 5 – Optimize Rx

- Symptoms that respond well to medications:
  - Within days: Irritability, Sleep latency/onset, Reexperiencing (nightmares)
  - Weeks to months: Mood, energy, interest, concentration
- Symptoms that respond less well:
  - Reexperiencing, Negative Cognitions, Avoidance, Startle, Vigilance
- Prazosin (Level 1 evidence) - nightmares
- Nabilone - nightmares
People with PTSD have greater availability of cannabinoid type 1 (CB1) receptors as compared to trauma-exposed or healthy controls.

As a result, there is some evidence that cannabinoids may decrease some of the major symptoms associated with PTSD via causing sedation, relaxation, anxiety reduction and sleep.

There is also evidence to suggest that regular marijuana use is associated with an increased risk of anxiety, depression, and psychotic illness.

Evidence of benefit limited to anecdotal reports.

No randomized controlled trials, a necessary "gold standard" for determining efficacy.
Referred to psychologist and seen for 8 sessions of ‘a mix of psychological techniques’
Treatment was largely supportive
Shawn remains on Disability, 10 months later
Learning point 6 - Psychotherapy

‘I hope you can find out why I have trouble getting along with people…Baldy’
Learning point 6 - Psychotherapy

Oxford English Dictionary:

“The treatment of mental disorder by psychological rather than medical means”
Learning point 6 - Psychotherapy
Meta-analysis do not support the use of psychological debriefing in individuals who have not been identified as suffering from specific psychological difficulties.

Screening and treating potential cases is preferred.

Brief–Trauma focused CBT, Eye Movement Desensitization and Reprocessing (EMDR) Therapy are equally efficacious.
Learning point 6 - Psychotherapy

Continuum of Intervention

SUPPORTIVE

EXPRESSIVE
Learning point 6 - Psychotherapy
The problem with psychotherapy

i·vo·ry tow·er

*noun*
1. a state of privileged seclusion or separation from the facts and practicalities of the real world.
2. "the ivory tower of academia"
The problem with psychiatrists

‘Take two of these day until you’re addicted’
The problem with America

Just kidding…or am I?”
Who is this man?
Time-limited
CBT is goal oriented and problem-focused
CBT emphasizes the present
CBT is educative, aims to teach the patient to be his/her own therapist, and emphasizes relapse prevention
CBT sessions are structured
CBT uses a variety of techniques to change thinking, mood and behavior
Learning point 6 - Psychotherapy

- Event
- Cognitive distortion
- Behavior
- Emotion
Learning point 6 - Psychotherapy

Pillars of CBT:

1. Structured both in the session and across the therapy
2. Measurement-Based Care
3. Goal oriented and problem-focused
4. Homework is essential
Learning point 6 - Psychotherapy

Avoidance Begets Avoidance

- Avoidance is the KEY functional symptom found in all Anxiety Disorder
- Avoidance behaviours INCREASE anxiety
- Not allowing Avoidance behaviours DECREASES anxiety
- All successful therapeutic interventions in Anxiety Disorders MUST address Avoidance behaviours
A typical panic attack
Learning point 6 - Psychotherapy

Behavioral Hierarchies

Parking Lot

Week 1

• Therapy MUST have a RTW focus
• Therapy MUST begin while the client is still symptomatic

Maintaining oneself in the workplace
A typical panic attack

Learning Point 6 – Psychotherapy
Learning point 6 - Psychotherapy

Avoid Avoidance

(Note the clever use of 40 pt font for emphasis)
The dose of paroxetine was maximized to 60 mg po qhs
Prazosin was utilized to assist with sleep at 3 mg po qhs
Received structured CBT over 20 sessions
GRTW was achieved within 3 months of Tx and a return to fill duties after 6 months
Thanks…Q+A