Post Traumatic Stress Disorder: Update on Clinical Presentation and Treatment

Jeanette M. Scheid MD, PhD
Michigan State University
Department of Psychiatry

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Objectives

Participants will learn:

- The clinical presentation of Post Traumatic Stress Disorder
- The prevalence of Post Traumatic Stress Disorder in different populations
- Trends and evidence base for treatment
  - Pharmacotherapy
  - Psychotherapy

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What is PTSD?

- A set of responses that an individual has after exposure to an event or events that represent a threat to life/safety/integrity
  - Assault (physical/sexual)
  - Motor vehicle accident
  - War
  - Natural disaster
  - Sociopolitical events (genocide)

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What is PTSD?

- These responses may be considered normative when transient, but become fixed and intrude on normal functioning
- Responses are organized into clusters:
  - Intrusion
  - Avoidance
  - Negative cognitions/mood
  - Increased arousal/reactivity

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What is PTSD?

Clinical Presentation:

5-year old boy: father involved in methamphetamine production, some prior exposure to violence related to drug culture, witnessed house fire in which father on fire. Afterwards, poor sleep, irritable and defiant, themes in play more persistently about superheroes, good vs evil, power, danger and safety.

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What is PTSD?

Clinical Presentation:

16 year old girl: repeatedly molested by a youth group leader. She reported nightmares and an acute panic-like reaction when seeing men in the community who looked like her assailant. She refused to go to the area of town where the molestation had occurred and would not watch TV about rape. She reported feeling distant from her mom (previously a good source of support). She had insomnia, irritability and was easily startled.

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What is PTSD?

Clinical Presentation:

26 year old Iraq vet: in multiple firefights, returned after injury. Reported nightmares, recurrent distressing recollections, numb/distant from family (new baby), anger, irritability, foreshortened future.

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Who gets PTSD?

- Prevalence in general population: 8%
  - Women>Men (based on exposure risk, impact of exposure)
  - Ethnicity differences (in part based on risk of exposure)
    - African Americans>Caucasian,
    - Hispanic>Caucasian

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Who gets PTSD?

- Prevalence in special populations:
  - Veterans: 4-17% US Iraq war veterans
  - Children in dependency care: 15% lifetime prevalence
  - Prison inmates: 11% juvenile, 4-10% adult

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What affects the risk of PTSD?

- Family history of anxiety/depression
- Early exposure to trauma
- Pre- /co-existing psychiatric disorders
- Type of exposure event (level of violence, recurrent events, unpredictability)
- Resiliency factors: (strong sense of self, accessing support, sense of humor, adaptability)

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Effects of Trauma on Brain: Summary

- Broad range of neurobiological changes after trauma exposures
  - Neurochemistry
    - Catecholamine (epinephrine, norepinephrine, dopamine)
    - Stress system (cortisol)
    - Serotonin
  - Neuroanatomy – multiple structures
- Affect emotions, memory, learning

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Treatments for PTSD

- Pharmacologic Interventions
  - **SSRI**
  - **SNRI**
  - Alternative antidepressants
  - Antipsychotics
  - Central adrenergic agents
  - Anticonvulsants

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Treatments for PTSD

- Psychotherapeutic Interventions
  - Cognitive Behavioral Therapy
  - Exposure Therapy/prolonged exposure
  - Eye Movement Desensitization and Reprocessing

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Treatments for PTSD

- Pharmacologic interventions
  - SSRI
    - Currently only sertraline and paroxetine are FDA approved for adults with PTSD
    - No medications approved for children
    - Other SSRI commonly used off-label, less strength in the evidence base
    - Evidence weaker for combat-related PTSD

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Treatments for PTSD

- Pharmacologic interventions
  - Other antidepressants
    - SNRI
      - Venlafaxine – two randomized controlled trials (adults) reduced PTSD
    - Serotonin agonists
      - Nefazodone – one study improved PTSD
      - Mirtazapine – one study improvement in some PTSD measures

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Treatments for PTSD

- Pharmacologic interventions
  - 2nd Generation antipsychotics
    - Olanzapine –small RCT showing improvement in PTSD
    - Risperidone – pilot open study one RCT showing improvement
  - Emerging evidence for 2nd generation antipsychotics adjunctive to SSRI

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Treatments for PTSD

- Pharmacologic interventions
  - Anticonvulsant mood stabilizing (divalproex, topiramate, tiagabine)
    - Mixed results – some improvement in PTSD symptoms, not remission
    - Given limited evidence, this class of medication not recommended

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Treatments for PTSD

- Pharmacologic interventions
  - Centrally acting adrenergic agents
    - Prazosin – small open, placebo controlled trials: reduction in nightmares, overall improvement in sleep, some improvement in general PTSD symptoms
    - β blockade – one positive pilot open study, not replicated in RCT

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Treatments for PTSD

- Psychotherapeutic interventions
  - Cognitive Behavioral Therapy
  - Exposure Therapy
  - Eye Movement Desensitization and Reprocessing
  - Each of these grounded in learning theory
  - Each connected to theory about memory storage and retrieval

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Treatments for PTSD

- Cognitive Behavioral Therapy
  - Time limited psychotherapy
  - Weekly sessions either individual or group
  - Expressing distorted thoughts and explanations about trauma, challenging and re-assessing these
  - Behavioral interventions to reduce stress
  - May include emphasis on specific exposure

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Treatments for PTSD

- Exposure Treatments
  - Time limited
  - May be conducted in both brief (1-2 sessions) and prolonged (10 session) formats (stronger evidence for prolonged)
  - Focus on re-exposure to traumatic event (*in vivo*, imaginal, written, verbal)

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Treatments for PTSD

- Exposure Treatments
  - Purpose of exposure is to:
    - Improve recall of specifics of traumatic event
    - Allow recall without re-living trauma
    - Address distorted thoughts related to traumatic event

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Treatments for PTSD

- Eye Movement Desensitization and Reprocessing
  - Time limited – single or multiple sessions
  - Individual recalls specific event or aspect of event and do some form of physical stimulation until distress abates:
    - Horizontal eye movements
    - Vertical eye movements
    - Bilateral tapping of fingers/hands

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Treatments for PTSD

- Eye Movement Desensitization and Reprocessing – controversy
  - Some clinical trials have been conducted with participants without DSM diagnosis of PTSD
  - Different measures of improvement
  - Not always published in peer-reviewed journals

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Treatments for PTSD

- Eye Movement Desensitization and Reprocessing – controversy
  - Variation in methodology
  - Not clear which elements of the treatment are necessary for effectiveness
    - Eye movement – vertical, horizontal, gaze
    - Other physical/mental activities

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Treatments for PTSD

- Eye Movement Desensitization and Reprocessing – controversy
  - Meta-analyses show EMDR equivalent, but not superior, to other treatments
  - Jury still out on whether EMDR vs. other treatments particularly suited to certain kinds of trauma
    - Sexual abuse vs. military trauma

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Finding Services

- Commercial Insurers/Medicaid Health Plans –
  - Ask questions about provider training/certification
- Community Mental Health Service Providers
  - Developing capacity to screen, assess and treat trauma
    - Behavioral Health and Developmental Disabilities Administration
      - Trauma Policy
    - Children's Mental Health
      - Trauma Initiative – moving towards state-wide capacity
      - FASD initiative

Finding Services

- Other resources
  - State-Wide Initiative to Address Adverse Childhood Experiences (ACE's)
    - http://mahp.org/ace-grant
  - **MDHHS Trauma and Toxic Stress website**
    - www.Michigan.gov/traumatoxicstress

Conclusions

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- Trauma exposure has broad-ranging mental health consequences
- Neurocognitive studies have informed the development of treatment
- Evidence base for pharmacological treatment is still limited
- Evidence base for psychotherapeutic strategies ranges from strong to encouraging, more needed to tailor treatments to trauma exposure

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