# Clinical Considerations in the Treatment of PTSD in Military Veterans

Andrew J. Darchuk, Ph.D., Christopher D. Chuick, Ph.D., and Brandy S. Peoples, MA

Harry S. Truman Memorial Veterans' Hospital, Columbia, MO


# Diagnostic Criteria

- DSM-IV-TR
  - 309.81 Posttraumatic Stress Disorder
  - Criterion A
    - Exposure to a traumatic event in which both of the following were present:
      - experienced, witnessed, or was confronted with an event or events that involved actual or threatened death or serious injury, or a threat to the physical integrity of self or others
      - response involved intense fear, helplessness, or horror

# Diagnostic Criteria

- Criterion B
  - Re-experience the trauma in the form of dreams, flashbacks, intrusive memories
- Criterion C
  - Evidence of avoidance and numbing of general responsiveness and reduced interest in the outside world
- Criterion D
  - Physiological hyperarousal
- Criterion E
  - Duration: more than 1 month
- Criterion F
  - Causes clinically significant distress or functional impairment
- Specify If:
    - Acute- less than 3 months
    - Chronic- 3 months or more
    - With Delayed Onset- at least 6 months after event

# Epidemiology

- Prevalence rates amongst general population
  - National Co-morbidity Survey, aka NCS (Kessler et al., 1995)
    - Conducted b/t 1990 – 1992
    - N= 8,098
    - Ages = 15 – 54 years
    - Lifetime PTSD = 7.8%
    - Women = 10.4%
    - Men = 5%
  - National Co-morbidity Survey Replication, aka NCS-R (Kessler et al., 2005)
    - Conducted b/t 2001 – 2003
    - N = 5,692
    - Ages = 18 + years
    - Current PTSD = 3.6%
    - Lifetime PTSD = 6.8%

# Epidemiology

- Prevalence of PTSD varies as a function of the type of trauma someone experiences (Kessler et al., 1995)
- Women
  - Women are more likely than men to develop PTSD following sexual assault
  - They're also more likely than men to develop PTSD following physical attacks and being threatened with a weapon
- Men
  - The two types of events most likely to lead to PTSD in men are combat and rape
  - Almost 40 % of men develop PTSD after combat and 65 % after rape

# Military Sexual Trauma (MST)

- MST is sexual assault on a Veteran while in the military
- Any sexual activity that a Veteran was involved in against their will, either physical or verbal, is considered MST
- VHA screens for MST (Nat'l Center for PTSD, 2008)
  - 1 in 5 women
  - 1 in 100 men

# Epidemiology

- Risk factors
  - History of abuse and/or trauma
  - Presence of psychiatric disorders
  - Lacking social support
  - Long-lasting trauma
  - Female
- Resilience factors
  - Seeking support from others
  - Finding a support group after the event
  - Having a coping strategy
  - Being able to act and respond effectively despite feeling fear

# Epidemiology

- Prevalence rates amongst Veterans
- Limitations
  - No comprehensive studies
  - Estimates based on results from various studies
  - Use of non-validated measures
  - PTSD diagnosis wasn't in existence until 1980, therefore the data before 1980 is limited

# Epidemiology

- OEF/OIF Millennium Cohort Study (Riddle et al., 2008; Smith et al., 2009)
  - Longitudinal study
  - 150,000 + men and women military personnel
  - Assessed periodically: 2001-2022
- PTSD Baseline
  - Women = 3.3%
  - Men = 2.2%
- 1st wave of data was collected b/t 2004-2006
- No PTSD at baseline
  - Non-deployed = 3.0%
  - Deployed w/o combat = 2.1%
  - Deployed w/combat = 8.7%

# Epidemiology

- OEF/OIF Invisible Wounds of War (Tanielian & Jaycox, 2008)
  - Representative sample
  - 2,000 men and women from all service branches
  - Surveyed b/t 2007-2008
- Findings
  - Current PTSD prevalence = 13.8%
  - About 15% of OEF/OIF Veterans have PTSD
  - Prevalence is 25% in VA users

# Epidemiology

- National Health Survey of Gulf War Era Veterans and Their Families (Kang et al., 2003)
  - Representative sample
  - 20,000 + Gulf War Theater Veterans and Gulf War Era Veterans
- Initial data collection b/t 1995-1997
  - 1995- 12.1%
  - 2005- 15.2%
- Prevalence of PTSD for non-deployed Veterans
  - 1995- 4.3%
  - 2005- 4.6%

# Epidemiology

- National Vietnam Veterans Readjustment Study (NVVRS) (Kulka et al., 1990)
  - Representative sample
  - 3,000 + Vietnam Veterans
  - Data were collected in the mid-1980s
- Lifetime PTSD
  - Women = 26.9%
  - Men = 30.9%
- Current PTSD
  - Women = 8.10%
  - Men = 15.20%

# Co-Occurring Conditions and Clinical Presentation of PTSD in VA Settings

- Mental Disorders (40%) are the second-most common medical condition in OEF/OIF veterans (Veterans Health Admin., 2008).

- Of those with PTSD, up to 80% have a co-occurring Axis I condition
  - Substance Abuse
  - Relationship Problems
  - Other conditions (e.g., mood, anxiety, and thought disorders, TBI, etc.)

- Common presenting complaints for veterans with PTSD:
  - Sleep disturbance (primary and middle insomnia)
  - Relationship problems
  - Occupational impairment
  - Substance Abuse
  - Legal Problems
  - Poor adjustment post-discharge

# PTSD and Substance Abuse

- Of those with SUD, up to 60% have a co-occurring Axis I condition.
- 33% of OEF/OIF veterans in a large survey endorsed problem drinking (Erbes, et al., 2007)
  - Combat exposure associated with ↑alcohol problems and binge drinking (Jacobson, et al., 2008)
- Estimated that 24% of OEF/OIF veterans meet criteria for SUD.
- 20% of VA pts with PTSD have co-occurring SUD (Petrakis, et al., 2011).
- Co-occurring PTSD and SUD, as opposed to either alone, is associated with ↑ aggression, domestic violence and ↓ treatment outcome (Ouimette, Moos, & Finney, 2003).

# PTSD and Other Axis I Conditions

- Odds Ratios for PTSD by Other Conditions (n = 1,000,000+; Petrakis, et al., 2011):

| | Vietnam | Post Vietnam | Persian Gulf | OEF/OIF |
|---|---|---|---|---|
| Affective Disorders | 1.48 | 1.93 | 1.66 | 1.89 |
| Anxiety Disorders | 1.10 | 1.18 | 1.25 | 1.17 |
| Bipolar Disorder | 1.58 | 2.07 | 2.12 | 2.51 |
| Schizophrenia | .94 | 1.20 | 1.22 | 1.86 |

# PTSD and Relationship Problems

- In couples where one/both have PTSD (v. no-PTSD couples):
  - 1.6x more likely to divorce (Kessler, et al., 1998)
  - 3.8x greater likelihood of marital distress (Whisman, et al., 1999)
- Of combat veterans, those with PTSD (v. those without):
  - ↑intimate relationship discord, domestic aggression
  - ↓self-disclosure/intimacy, parenting satisfaction

# PTSD and Relationship Problems

- Research on military families has suggested that wives of military personnel experience greater marital distress when their spouse lacks recognition of psychosocial problems (Renshaw, et al., 2008)
- In a sample (n=1000) of Marines deployed in OEF/OIF, there was a 400% increase in relationship problems 12 months post-deployment (Milliken et al., 2007)
- Hypervigilance most closely associated with post-deployment violence (Galovski & Lyons, 2004).
- Marriage may be a protective factor for men, risk factor for women (Fullerton, et al., 1999).

# Behavioral Observations

- Waiting Room
  - Position
  - Visual “scanning” of the room
- Therapy Room
  - Response to ambient noise (ESR)
  - Guarded demeanor
  - Irritability
  - Concerns about confidentiality
  - Verbal minimization of symptoms
  - External attribution of problems
  - Disengagement from groups
  - Avoiding elevators, enclosed spaces

# VA Roll-Out and other Treatments

- Cognitive Processing Therapy (CPT)
- Prolonged Exposure (PE)
- Eye Movement Desensitization and Reprocessing (EMDR)
- Pharmacotherapy for PTSD
- Other services

# CPT (Resick, Monson, & Chard, 2008; Foa, Keane, Friedman, & Cohen, 2008)

- CPT is a twelve session therapy based in social cognitive theory
  - Focused on cognition content and the effect cognitions distorted by trauma have on emotions.
  - Targets:
    - *Assimilation:* changing incoming information to fit beliefs/schemas
    - *Accommodation:* altering beliefs to integrate new experience
    - *Over-accommodation:* extreme alterations in beliefs in order to feel safer and in control

# CPT continued

**Twelve sessions**

1. Introduction and education
2. The meaning of the event
   2a. Optional bereavement
3. Identification of thoughts and feelings
4. Remembering the traumatic event
5. Identification of stuck points
6. Challenging questions
7. Patterns of problematic thinking
8. Safety issues
9. Trust issues
10. Power/Control issues
11. Esteem issues
12. Intimacy and meaning of event

# CPT continued

- Three different version typically used at the VA
  - CPT individual
    - Twelve weekly/bi-weekly sessions with trauma account exposure
  - CPT group
    - Twelve weekly group session with trauma account included.
  - CPT-C group
    - Twelve weekly sessions **without** trauma account exposure

# CPT research

- Originally developed with victims of sexual assault (Resick & Schnicke, 1992).
- Found to be as effective as PE (Resick et al., 2002).
- Group and individual adaptations were found to be efficacious in reducing PTSD and comorbid sx. (Chard, 2005)
- Randomized trials with veterans addressing military traumas produced findings that support CPT's effectiveness with this population. (Monson et al., 2006)
- A comparison study of OIF/OEF and Vietnam veterans found some differences and similarities in how these two cohorts respond to CPT treatments. (Chard et al., 2010)

# PE (Foa, Hembee, & Rothbaum,2007; Foa, Keane, Friedman, & Cohen, 2008)

- PE is a 10-15 session individual therapy based in emotional processing theory.
  - Treatment focuses on reducing anxiety symptoms through modifying pathological elements of fear structures.
  - Two conditions needed to change fear structures
    - Activation of fear structure (exposure).
    - New experiences that conflict with meanings set within fear structure must be available and incorporated (not avoiding the stimuli of the fear reactions).

# PE continued

- Four primary components
  - Psychoeducation about reactions to traumatic events
  - Relaxation through breathing retraining
  - **In Vivo Exposure**: systematic exposure to real world situations that are objectively safe, but avoided due to trauma related distress
  - **Imaginal Exposure**: to trauma memories through repeated description of the trauma event

# PE continued

Treatment Sessions

- ***Initial session***: Overview of tx, PE rationale, trauma assessment, breathing retraining
- ***Session 2*:** Common reactions to trauma (interactive), in vivo exposure rationale and development of hierarchy
- ***Sessions 3***: rationale for imaginal exposure, first imaginal exposures, processing postexposure thoughts/feelings, review in vivo homework.
- ***Sessions 4-9***: Imaginal exposure, “hot-spots”, processing postexposure thoughts/feelings, review in vivo homework.
- ***Session 10***: Final session with review of homework, shorter imaginal exposure, postexposure processing and detailed discussion of progress in treatment, and continued application of exposure strategies.

# PE Research

- Also originally developed with victims of sexual assault (Foa & Rothbaum, 1998)).
- Found to be more effective alone than Stress Inoculation (SI) or PE/SI combined (Foa et al., 1999).
- Effectiveness of PE in producing improvements in PTSD and comorbid depressive symptoms was not enhanced by inclusion of cognitive restructuring strategies (Foa et al., 2005).
- Rauch et al. (2009) found PE to produce statistically significant reductions in both PTSD and comorbid depressive symptoms in an OIF/OEF veteran population.
- These findings were confirmed in a study of OIF/OEF veterans who participated in PE (Tuerk et al., 2011). Treatment took place in an urban VA setting, prompting the authors to suggest that their results, which mirrored results from RCT's of PE, provide evidence that PE in a regular mental health care setting can be as effective as when it is provided in a controlled setting

# EMDR (Ruzek, 2010; Foa, Keane, Friedman, & Cohen, 2008)

- Eye Movement Desensitization and Reprocessing was first developed by Dr. Francine Shapiro (1989).Theoretically based in adaptive information processing.
  - Treatment goal: Access and process traumatic memories to bring them to an adaptive resolution.

# EMDR continued

Eight phases of tx

1. Patient history and tx planning
2. Preparation
3. Assessment
4. Desensitization and reprocessing
5. Installation of positive cognition
6. Body Scan
7. Closure
8. Reevaluation

# EMDR research

- EMDR initially had mixed results in research focused on its efficacy.
- Continued interest in EMDR lead to research that showed the manualized treatment to be of benefit.
  - Carlson et al., (1998) used a veteran population to show EMDR to be better than bio-feedback assisted relaxation and routine care, at reducing frequency, but not intensity, of PTSD symptoms post-treatment.
  - Rothbaum et al., (2005) compared EMDR to PE and to a waitlist, finding EMDR and PE to produce improvement in PTSD and comorbid depression symptoms. However, at six month follow-up, PE had produced significantly better symptom reduction than EMDR.
  - Hogberg et al., (2007) found EMDR to produce better outcomes than a waitlist remission of PTSD.
  - van der Kolk et al., (2007) looked at EMDR vs. Fluoxetine (Prozac, Sarafem) vs. placebo. While post-treatment outcomes were similar in all three conditions, EMDR had a significantly better efficacy at six month follow-up.
  - In a meta-analysis of EMDR research, Davidson and Parker (2011) concluded that the eye movement component of the therapy did not have empirical support and was therefore unnecessary.

# Medication (Jefferys, 2009)

- PTSD has psychological, social, and biological components.
- Medications treat reexperiencing, avoidance, and hyperarousal symptoms.
- Only FDA approved medications for the treatment of PTSD are Zoloft (Sertraline) and Paxil (Paroxetine).

# PTSD Medication Groups

- Selective Serotonin Reuptake Inhibitors (SSRI)
  - The cornerstone of pharmacotherapy for PTSD.
    - Zoloft (Sertraline)
    - Celexa (Citalopram)
    - Paxil (Paroxetine)
    - Prozac (Fluoxetine)
- Other Non-SSRI Antidepressants
    - Remeron (Mirtazapine)-sleep
    - Effexor (Venlafaxine)
    - Wellbutrin (Bupropion)
    - Desyrel (Trazadone)-sleep

# PTSD Medication Groups

- Mood Stabilizers
  - Efficacy in treating PTSD has not been consistently supported by research.
- Atypical Antipsychotics
  - Preliminary studies finding pt's who don't respond well to SSRI's may find increased benefit with augmented treatment with atypicals.
- Benzodiazepines for PTSD
  - Due to risk of addiction and disinhibition, not recommended for treating PTSD.
- Other medications for PTSD
  - Prazosin- nightmares
  - Buspirone- reduce anxiety in PTSD without sedation or addiction
  - Beta blockers- might help reduce risk of developing PTSD

# Other services

- Tele Mental Health
- Veteran Justice Outreach (VJO)
- Addiction Treatment Program
- Dual Diagnosis
- Homeless Veteran programming
- Vet Centers

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