



# Epidemiology, Assessment, and Treatment of PTSD

Center for Deployment Psychology  
Uniformed Services University of the Health Sciences



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## Epidemiology of PTSD



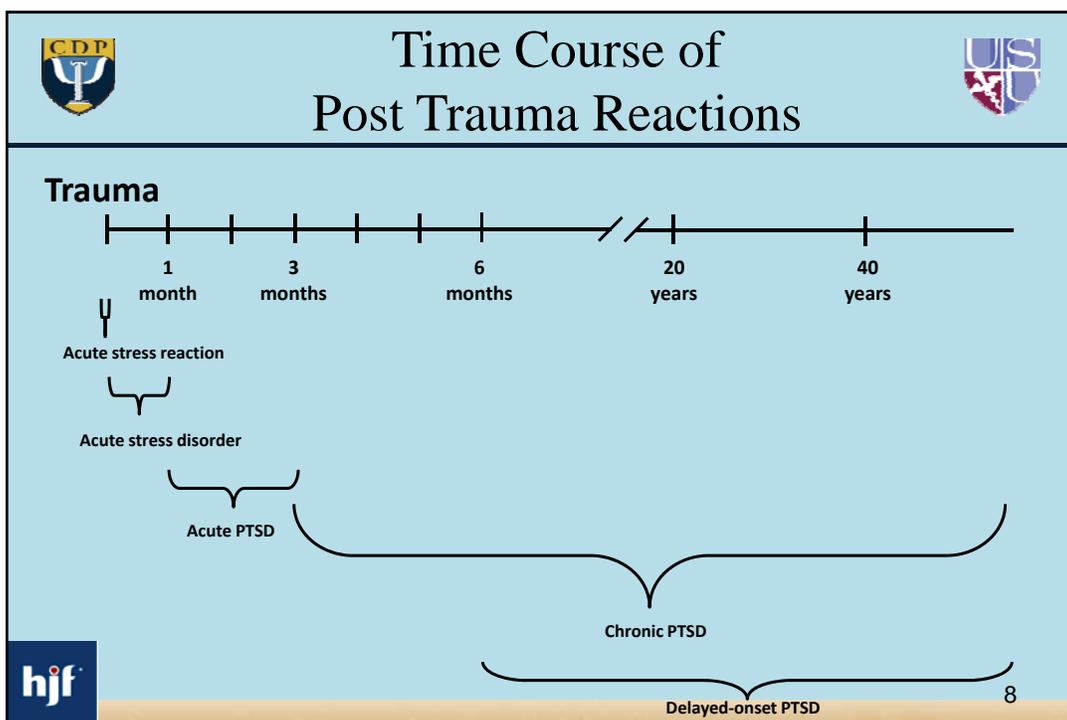
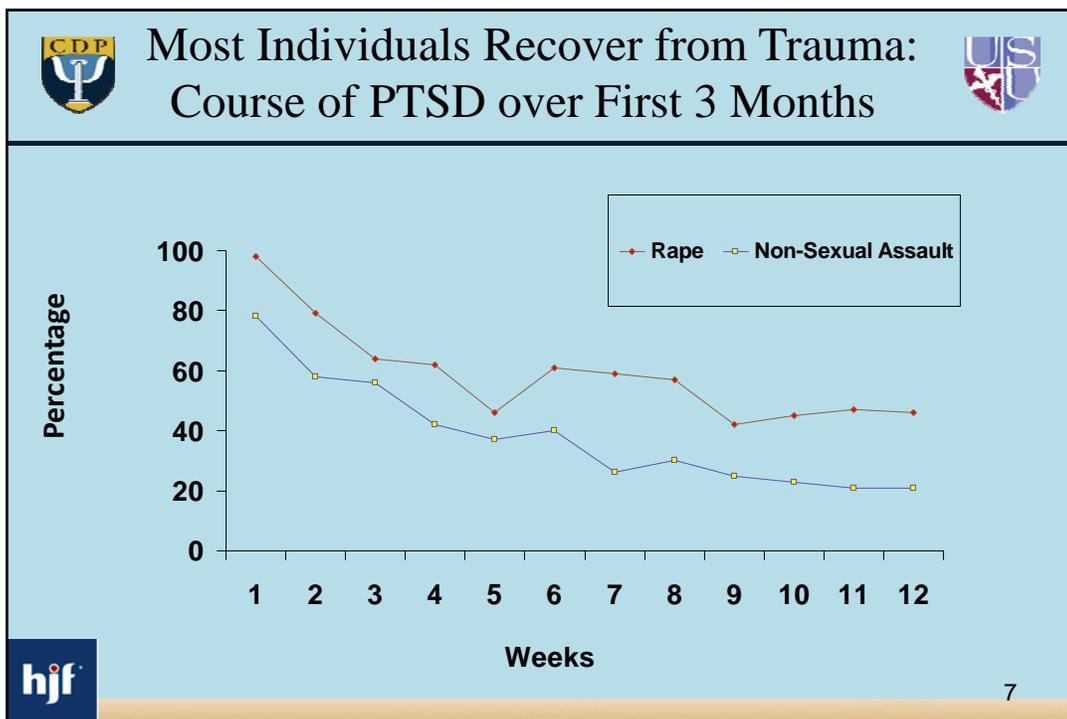
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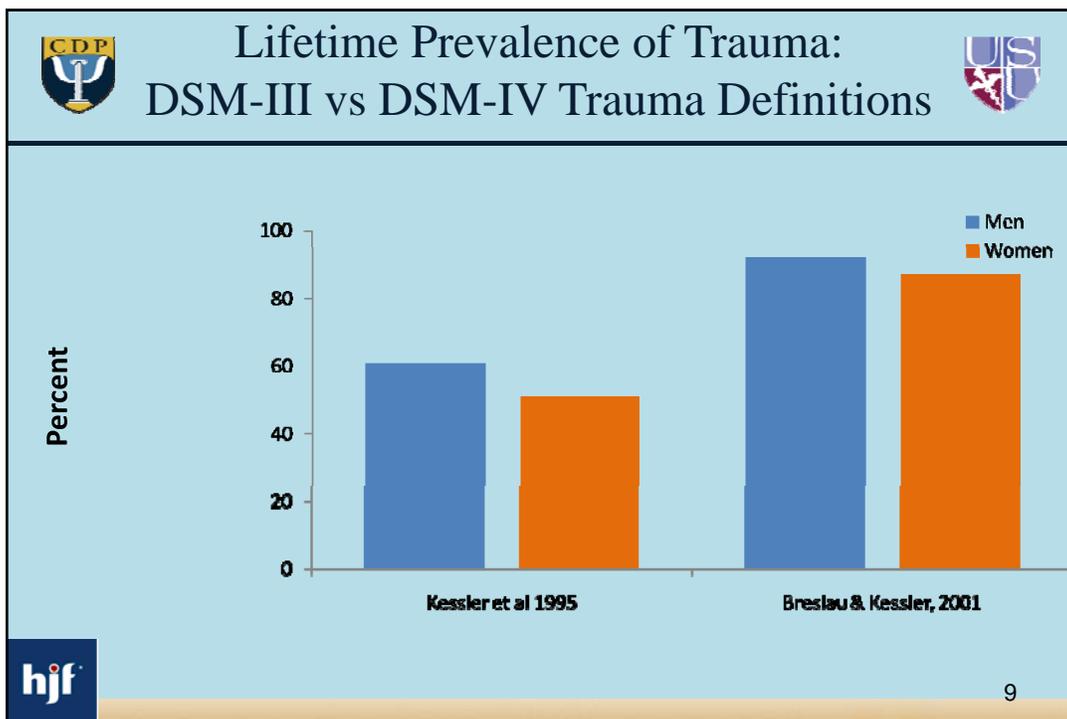


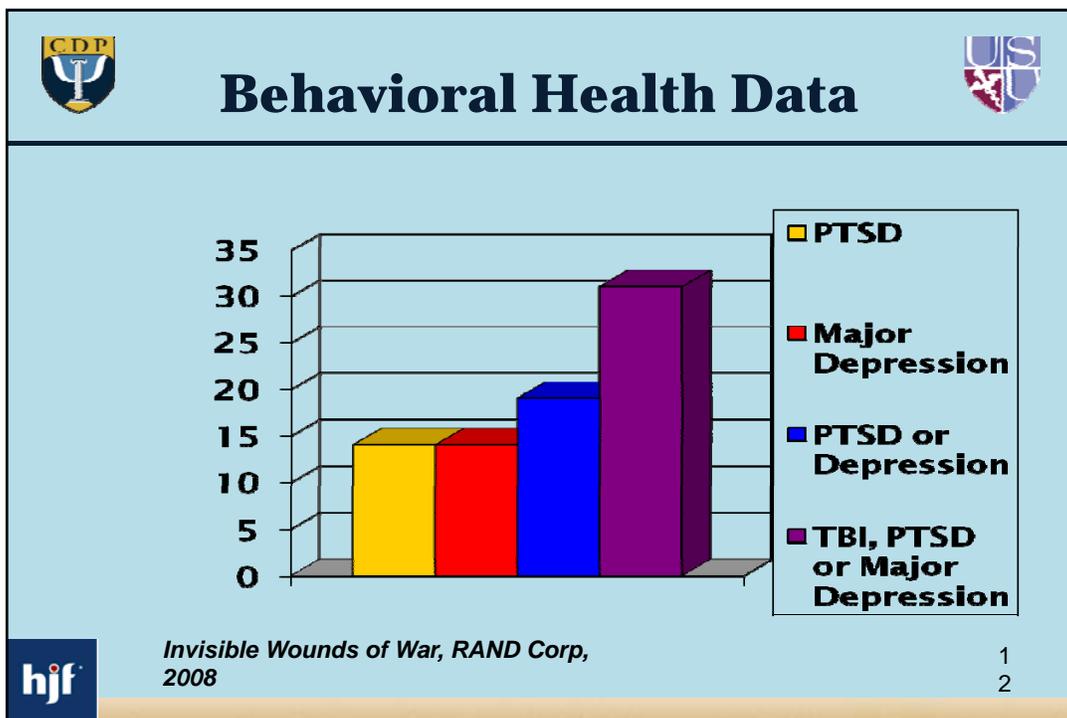
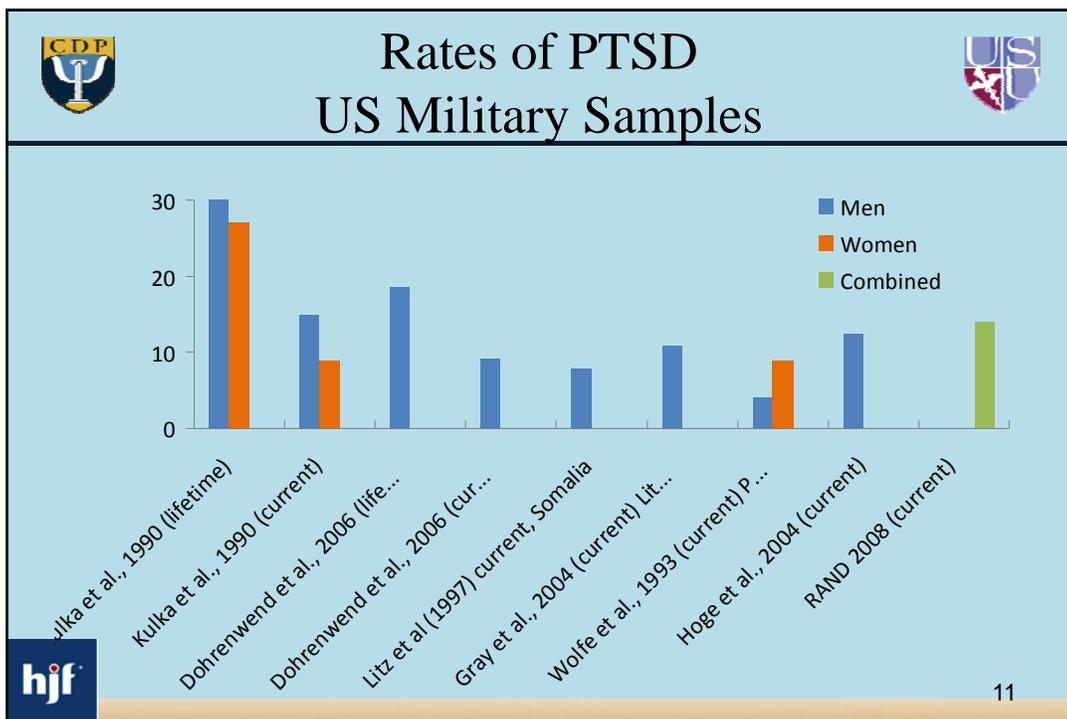
# Trauma

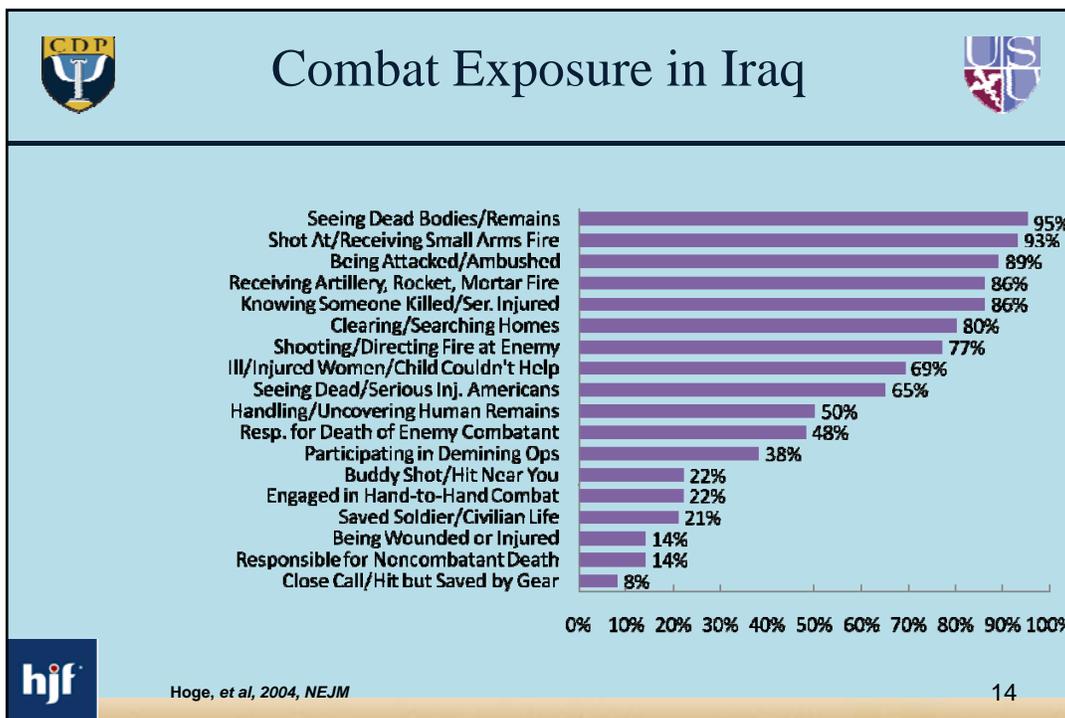
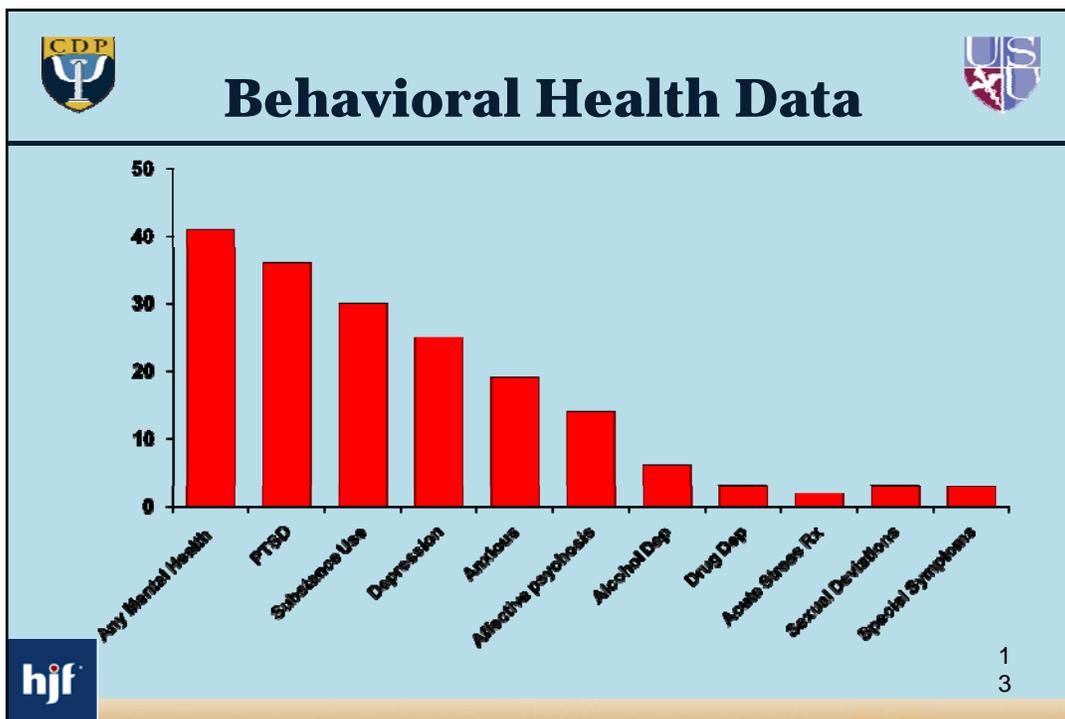


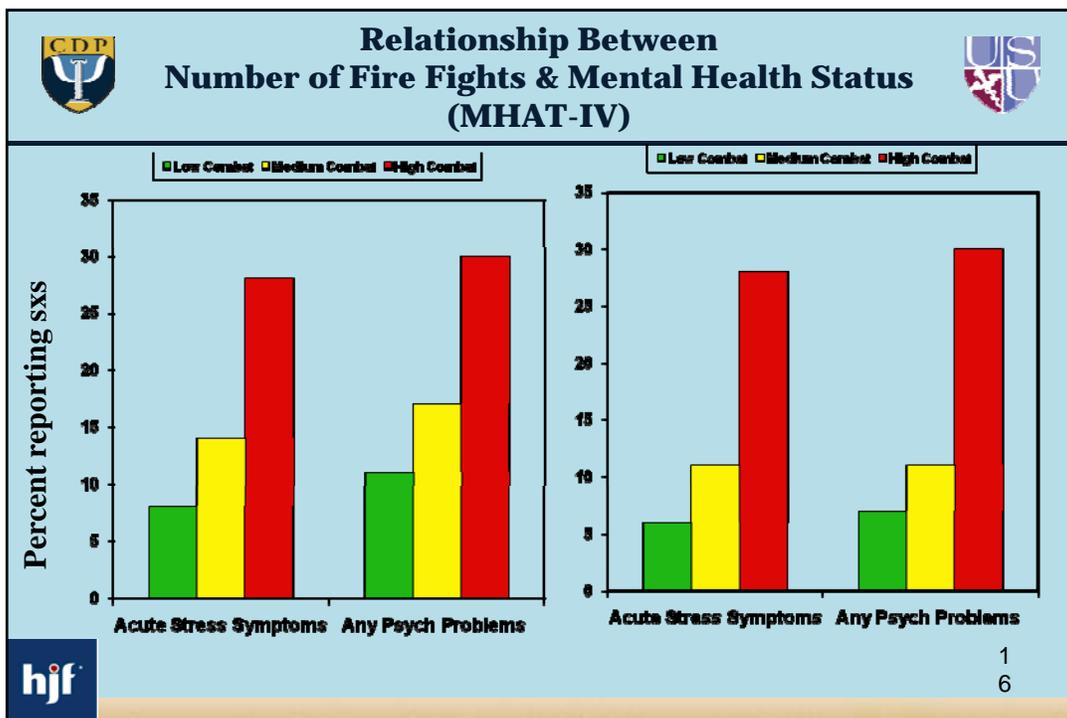
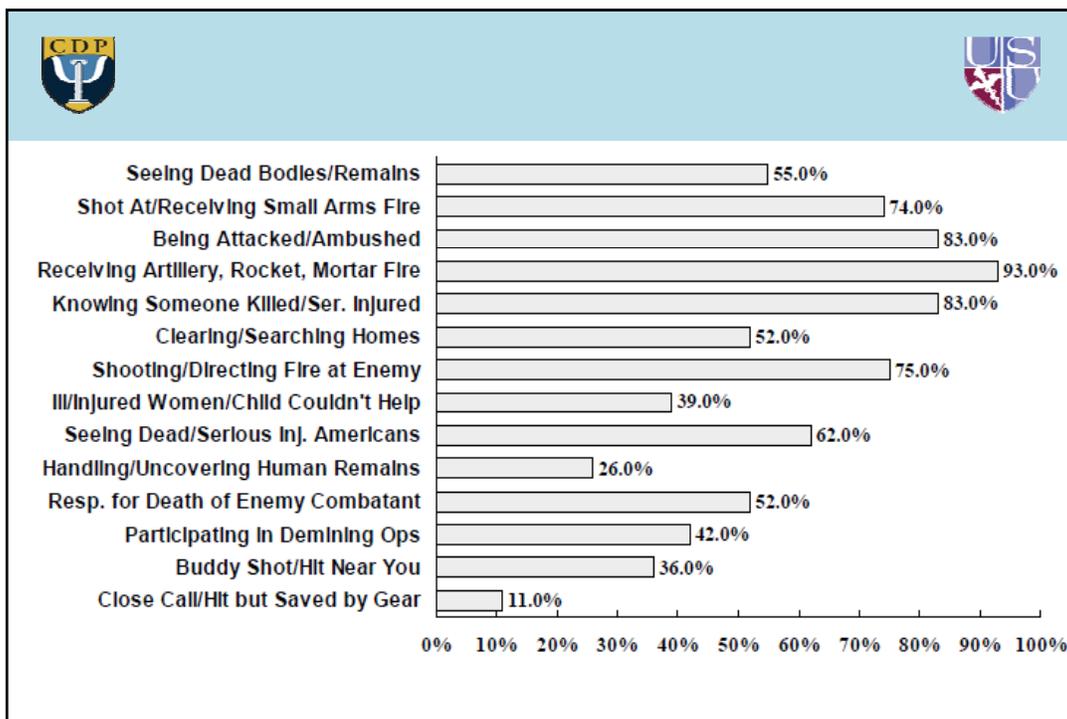
**PTSD is a disorder of non-recovery**

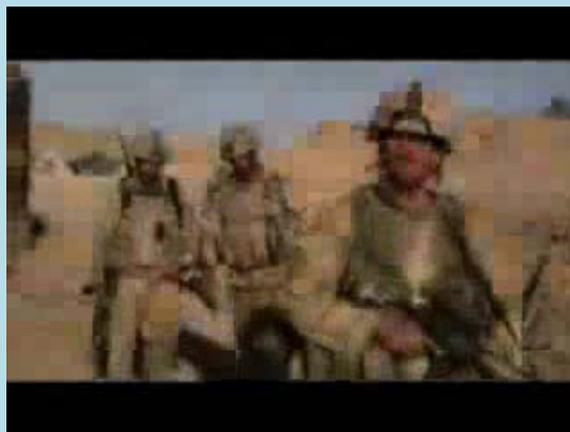












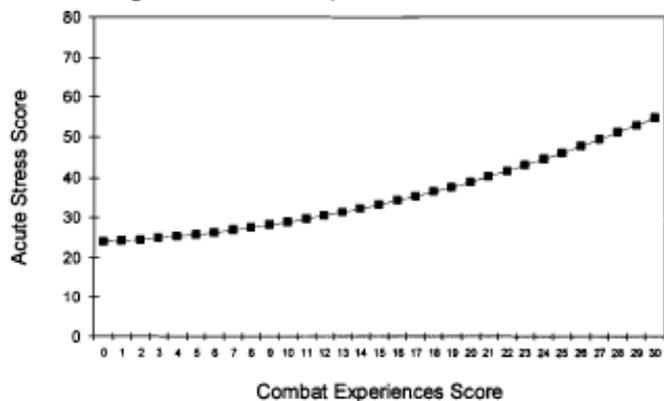
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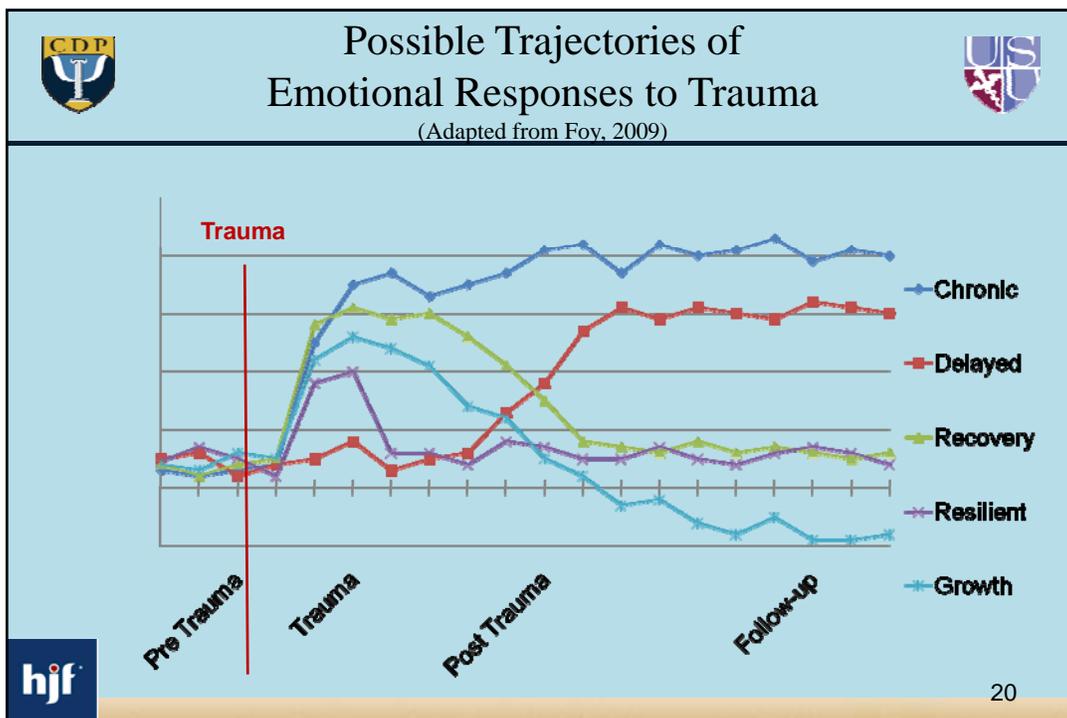
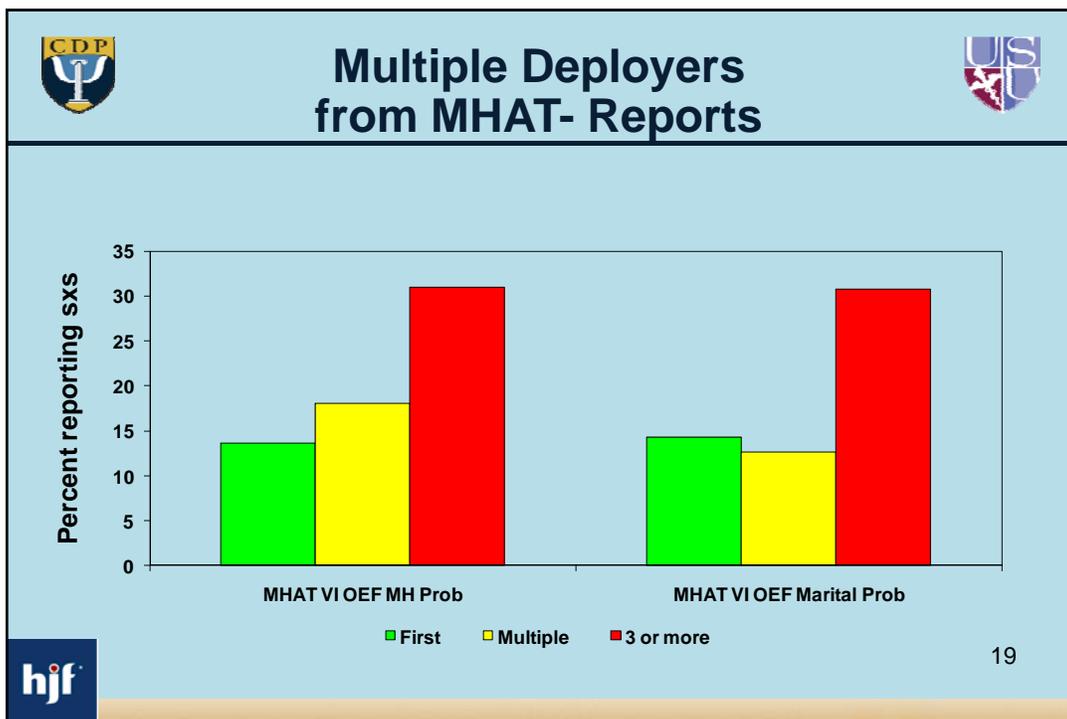
### MHAT-VI: Acute Stress Increases with Increases in Combat Experiences



Figure 9: Combat Experiences and Acute Stress



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## PTSD Criteria – DSM-IV

- A: Stressor Criterion
- B: Re-experiencing
- C: Avoidance
- D: Arousal
- E: Time Criterion
- F: Functional Impairment or Distress

*The defining symptoms alone, without connections to the stressor, are not regarded as PTSD (Breslau, 2002).*



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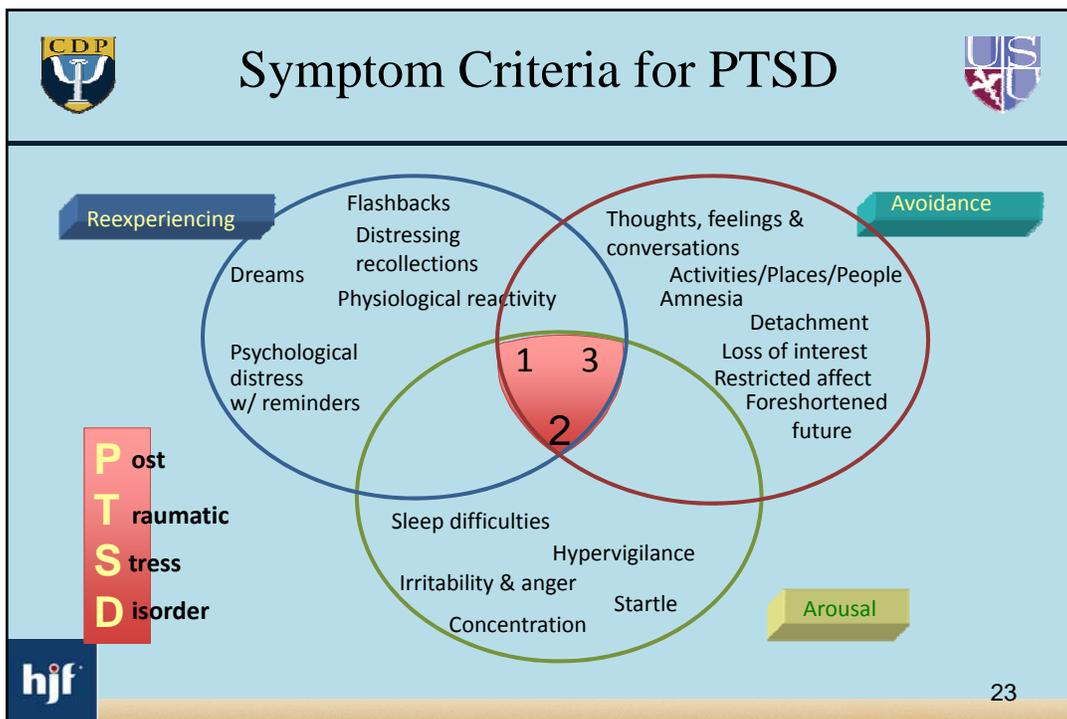


## DSM-IV Definition of a Trauma Criterion A

- A1 Experienced, witnessed, or been confronted with an event that involves actual or threatened death or injury, or a threat to the physical integrity of oneself or others. (objective)
- A2 Response involved intense fear, horror or helplessness. (subjective)



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**Acute Stress Disorder (ASD):  
DSM-IV Diagnostic Criteria**

**Dissociation** (at least 3)  
 amnesia, detachment, numbing, reduced awareness of surroundings, derealization, depersonalization

**Reexperiencing** (at least 1)  
 Thoughts, nightmares, flashbacks, emotional reactions, physiological reactions

**Avoidance** (at least 1)  
 Avoid thoughts, avoid reminders

**Arousal** (at least 1)  
 Sleep disturbance, concentration problems, anger, hypervigilance, startle

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CDP

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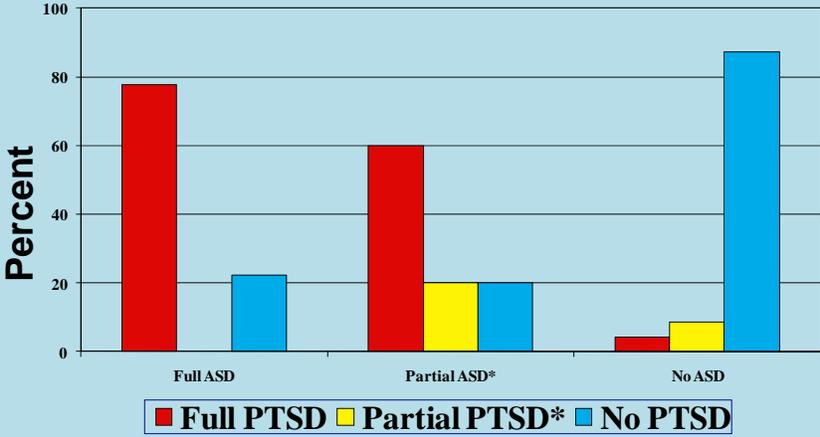
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### ASD and PTSD

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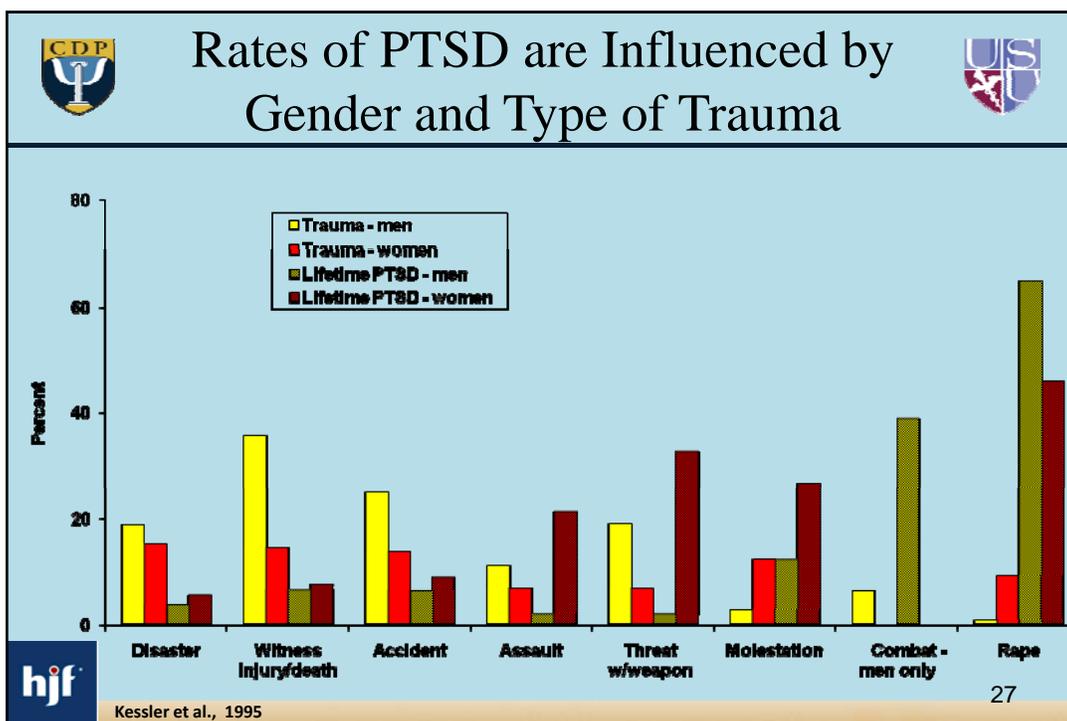


| ASD Category | Full PTSD (%) | Partial PTSD* (%) | No PTSD (%) |
|--------------|---------------|-------------------|-------------|
| Full ASD     | 78            | 0                 | 22          |
| Partial ASD* | 60            | 20                | 20          |
| No ASD       | 5             | 10                | 85          |

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Harvey & Bryant, 1998

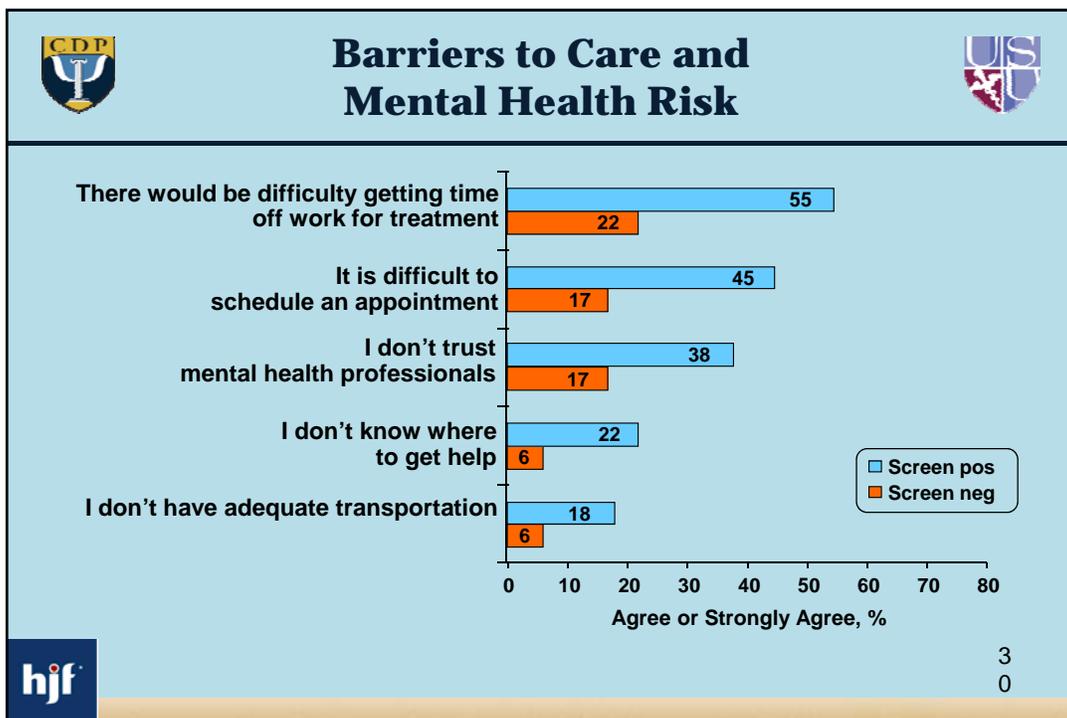
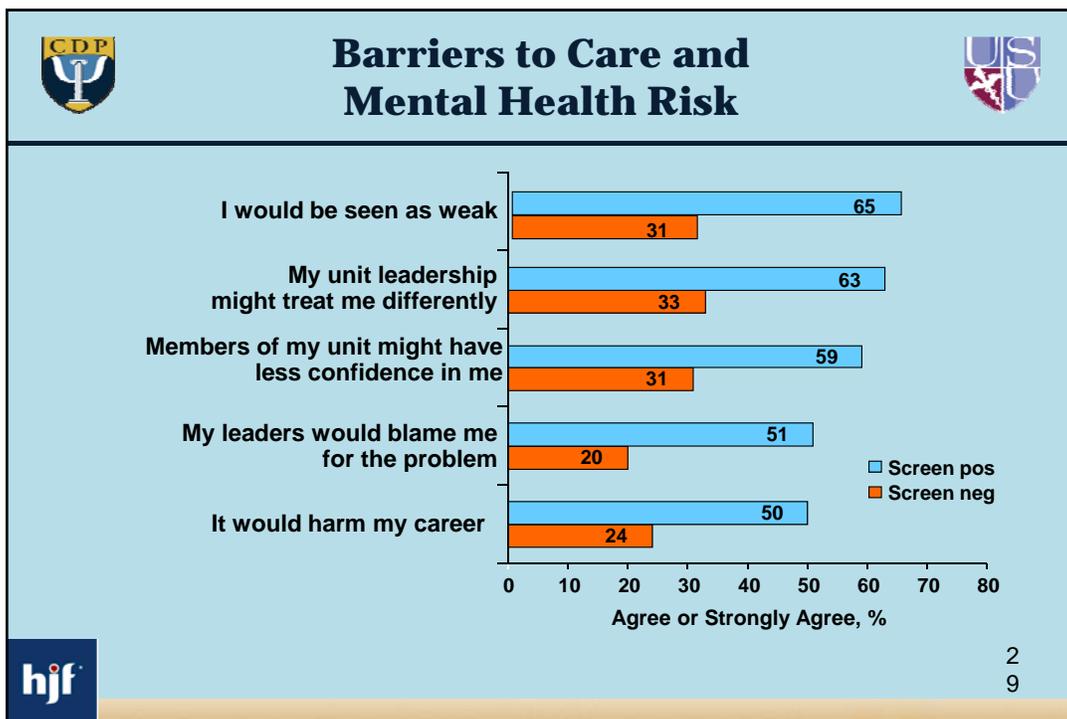
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### Impact of PTSD on Social Support

- Can reduce available social support
  - Emotional numbing
  - Detachment
  - Hostility and aggression
  - Distrust of others
  - Social problem solving deficits
- Can exhaust support and resources

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## Summary – Epidemiology of PTSD



Greater trauma exposure in theater is associated with higher rates of combat stress reactions.

Combat stress reactions are normal, however, and for most, they are transitory.

The intensity of distress after a trauma may alter the course of recovery.

No one vulnerability model exists for PTSD, but exaggerated and lingering reactions defines the disorder.

Social support is important for recovery from PTSD.

Positive leadership and good unit cohesion appear to mitigate the negative impact of combat trauma.



## Assessment of PTSD



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## PTSD Self-Report Measures

- Primary Care PTSD Screen = 4 items
- PTSD Check List - Military (PCL-M) = 17 items
- PTSD Check List - Civilian (PCL-C) = 17 items
- Impact of Event Scale - Revised (IES-R) = 22 items
- Mississippi Combat Scale for PTSD = 35 items
- Mississippi Civilian Scale for PTSD = 35 items
- PTSD Symptom Scale Self Report (PSS-SR) = 17 items
- Posttraumatic Diagnostic Scale (PDS) = 49 items
- PK Scale of the MMPI-2 = 46 items
- PTSD Cognitions Inventory (PTCI) = 36 items

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## Primary Care PTSD Screen



(Veterans – cut score 2)

- Population – 10000
- Base rate – 10%
- Sensitivity = .93
- Specificity = .79
- PPP = .33
- NPP = .99
- Accuracy = .80  
 $(930 + 7110)/10,000 = 0.80$

|             |   | True Status   |   | Total  |
|-------------|---|---|---|--|
|             |   | +   | -   |  |
| Test Status | + | True Positive<br>930<br><small><math>930/1000 = 0.93</math></small> | False Positive<br>1890  | 2820<br><small><math>930/2820 = 0.33</math></small>  |
|             | - | False Negative<br>70  | True Negative<br>7110<br><small><math>7110/9000 = 0.79</math></small> | 7180<br><small><math>7110/7180 = 0.99</math></small> |
|             |   | 1000  | 9000  | 10000  |


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## What Makes a Good PTSD Self-Report Measure?



Relatively quick and easy to administer

Reading level and language appropriate for patients taking the screen

Reliable or consistent over time

Assesses what it is designed to and does so reliably across time and across various populations


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## Factors To Keep in Mind with PTSD Self-Report Measures



- They do not provide a diagnosis or prognosis
- Often no validity scales
- Can be false positives and false negatives
- Often use dichotomous questioning
- Often no intensity or frequency scales
- Secondary gain /malingering

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## Importance of PTSD Structured Diagnostic / Clinical Interview



*“No psychological test can replace the focused attention, visible empathy, and extensive clinical experience of a well-trained and seasoned trauma clinician.”*

Briere, J. (2004). *Psychological Assessment of Adult Posttraumatic States: Phenomenology, Diagnosis and Measurement.*

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## PTSD Structured Interviews



Clinician-Administered PTSD Scale (CAPS)

PTSD Symptom Scale - Interview (PSS-I)

Structured Interview for PTSD (SIP)

Structured Clinical Interview for DSM-IV  
(SCID)

PTSD Module

Mini International Neuropsychiatric Interview  
(MINI)

PTSD Module



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## Additional PTSD Assessment Considerations



Reactions of fear, helplessness or horror may not be identified during assessment if dissociated or repressed.

No history of trauma rules out PTSD, but the presence of it does not mean PTSD.

Re-experiencing and avoidance symptoms may occur on four levels: 1) emotionally; 2) cognitively; 3) behaviorally; and 4) physically.

PTSD can be precipitated by a non-traumatic stressor yet it originates from earlier traumatic event.



A. S. Blank, 1994, Psychiatric Clinics of North America, Vol 17, No 2

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## Multimethod Approach to PTSD Assessment

Keane et al. (2000; 2008) recommend:

- A structured diagnostic interview and self-report measures
- Psychophysiological measures (if possible)
- Assessment of symptom frequency, intensity and duration
- Identification of Criterion A event to which subsequent symptoms are endorsed; measurement of both A1 & A2
- A culturally sensitive test battery
- Addition of indices of functional domains
- Addition of indices of comorbid conditions



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 Comorbid Conditions to Assess for and Monitor:   
Suicidal Behavior

- PTSD patients are 6 times more likely to attempt suicide than the general population
- PTSD has higher risk of increased number of suicide attempts than all other anxiety disorders
- 19% of patients with PTSD will attempt suicide

 Kessler et al. *Arch Gen Psychiatry*. 1999;56:617 43

 Comorbid Conditions to Assess for and Monitor:   
Depression

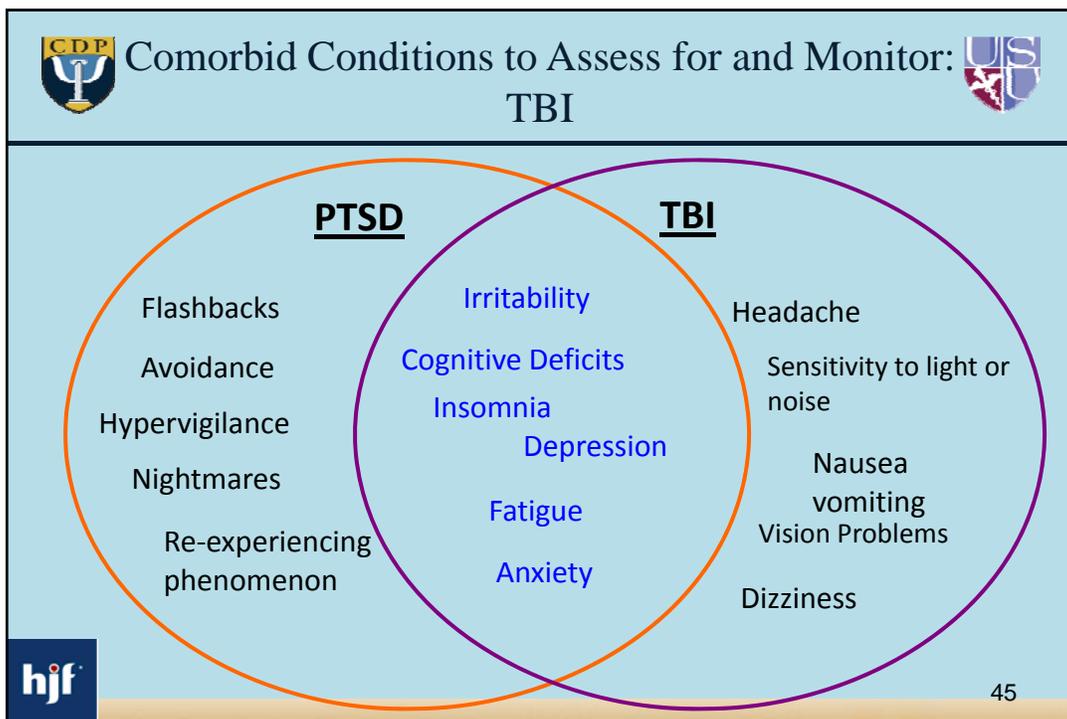
- ❖ Sleep disturbance
- ❖ Flat affect
- ❖ M...
- ❖ ...s
- ❖ ...t
- ❖ ...e of future
- ❖ Feeling hopeless

**Which complaints reflect depression?**

- ❖ Low self esteem
- ❖ ...th intimacy
- ❖ ...s
- ❖ ...ess
- ❖ Suicidal thoughts

**Which complaints reflect PTSD?**

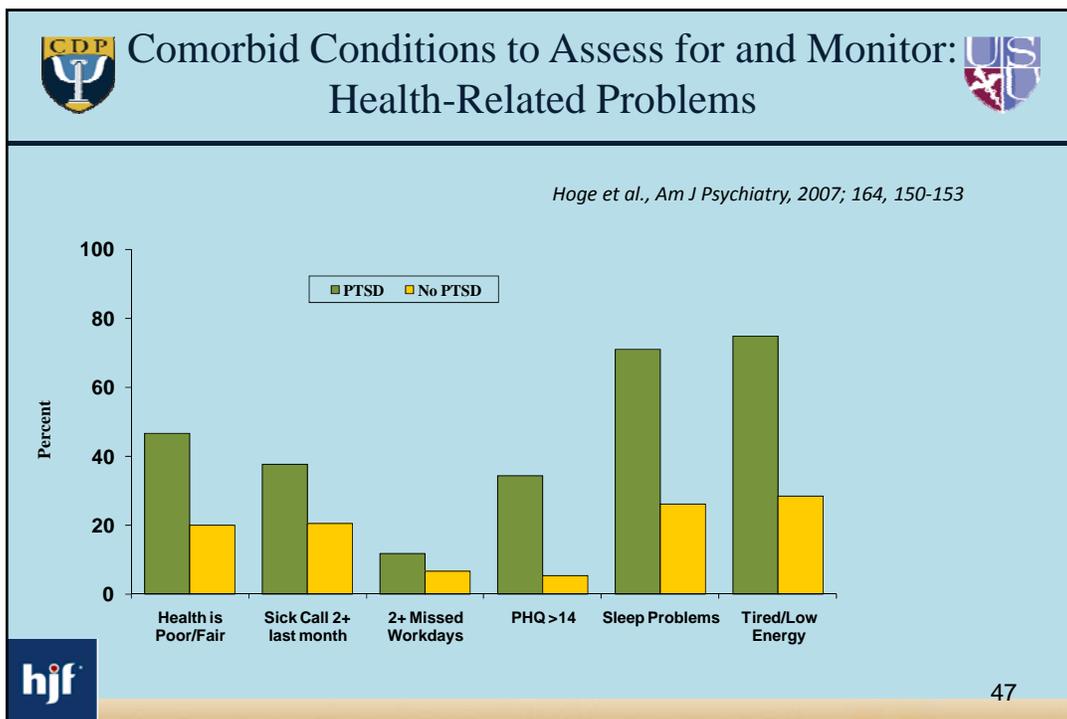
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 Comorbid Conditions to Assess for and Monitor:   
Substance Use Disorders

|                                 |                        |            |
|---------------------------------|------------------------|------------|
| Estimates of trauma exposure:   |                        |            |
|                                 | In general population: | 40% - 70%  |
|                                 | In SUD population:     | 35% - 90%  |
| Estimates of PTSD               |                        |            |
|                                 | In general population: | 5% - 12.5% |
|                                 | In SUD population:     | 30% - 50%  |
| Estimates of Alcohol Dependence |                        |            |
|                                 | In general population: | 7% - 9%    |
|                                 | In PTSD population:    | 30% - 68%  |

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**CDP** Comorbid Conditions to Assess for and Monitor: **US**  
**Anger**

PTSD

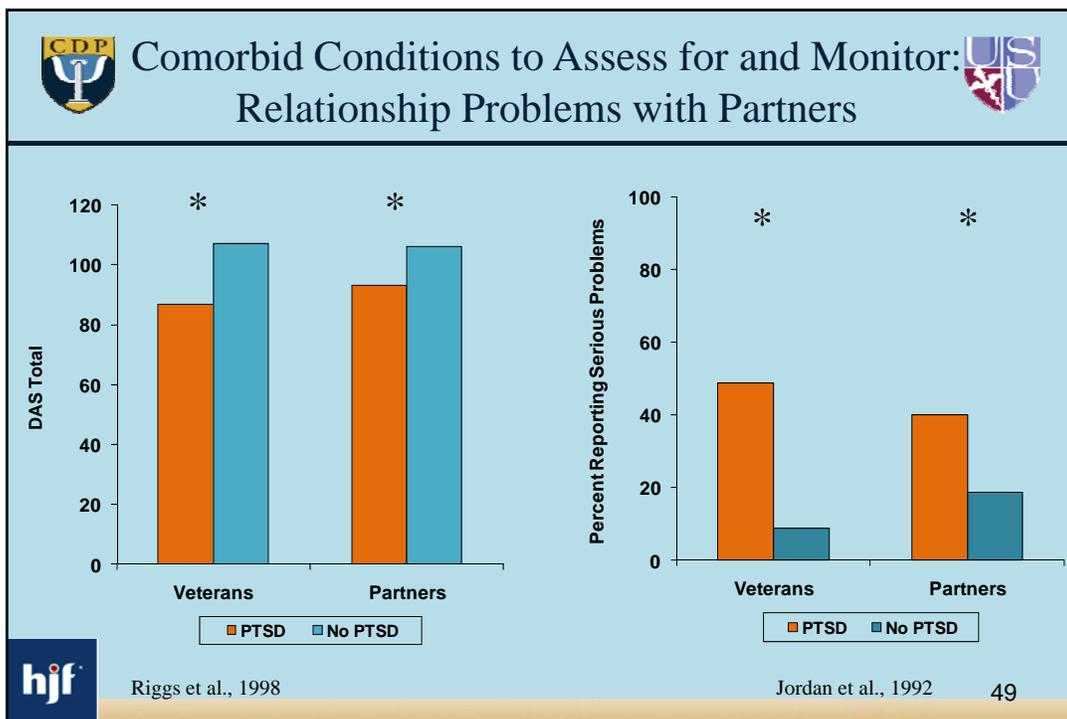
Anger

How common is anger in veterans with PTSD?

PTSD or ASD

64% had history of law violation (14% Assault, 14% Forcible entry)

**hjf** 48




**Summary – Assessment of PTSD**


PTSD self-report measures should be used with a clinical interview to determine a PTSD diagnosis.

PTSD self-report measures are helpful in tracking client progress before, during, and after the course of PTSD treatment.

Assessment of conditions comorbid with PTSD is important because associated problems are common

In the military in particular, stigma and secondary gain, among other factors, may affect how clients rate symptoms of PTSD on self-report measures.


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## BATTLEMIND Skills



| <u>WHILE DEPLOYED</u>            | <u>HOME</u>                            |
|----------------------------------|--|
| <b>Buddies (cohesion)</b>        | <b>vs. Withdrawal</b>                  |
| <b>Accountability</b>            | <b>vs. Controlling</b>                 |
| <b>Targeted Aggression</b>       | <b>vs. Inappropriate Aggression</b>    |
| <b>Tactical Awareness</b>        | <b>vs. Hypervigilance</b>              |
| <b>Lethally Armed</b>            | <b>vs. “Locked and Loaded” at Home</b> |
| <b>Emotional Control</b>         | <b>vs. Anger/Detachment</b>            |
| <b>Mission OPSEC</b>             | <b>vs. Secretiveness</b>               |
| <b>Individual Responsibility</b> | <b>vs. Guilt</b>                       |
| <b>Non-Defensive Driving</b>     | <b>vs. Aggressive Driving</b>          |
| <b>Discipline and Ordering</b>   | <b>vs. Conflict</b>                    |


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## Overview of Evidence-Based Treatments and Commonly Used Strategies for PTSD



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## PTSD Treatment Modalities



- Individual
- Group (for service members or spouses)
- Family
- Couples
- Internet /Telehealth

*\*We will focus on individual treatment modalities*



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## Evidence-Based Treatments for PTSD (DoD/VHA Guidelines)



- Medication
  - Sertraline (Zoloft) - FDA indication in 1999
  - Paroxetine (Paxil) - FDA indication in 2001
- Cognitive Behavioral Treatments
  - Exposure Therapy (PE, Dream Rehearsal)
  - Cognitive Therapy (CPT, CT, CR)
  - Stress Inoculation Training (SIT)
  - EMDR
  - Combination of CR and Exposure Therapy



## PTSD Treatments and Strategies We Will Discuss



1. Medication
2. Cognitive Processing Therapy (CPT)
3. Prolonged Exposure Therapy (PE)
4. Imagery Rehearsal Therapy (IRT)
5. Eye Movement Desensitization Reprocessing Therapy (EMDR)
6. Stress Inoculation Therapy (SIT)
  - Psychoeducation
  - Relaxation Training (breathing retraining & guided imagery)
  - Anger Management



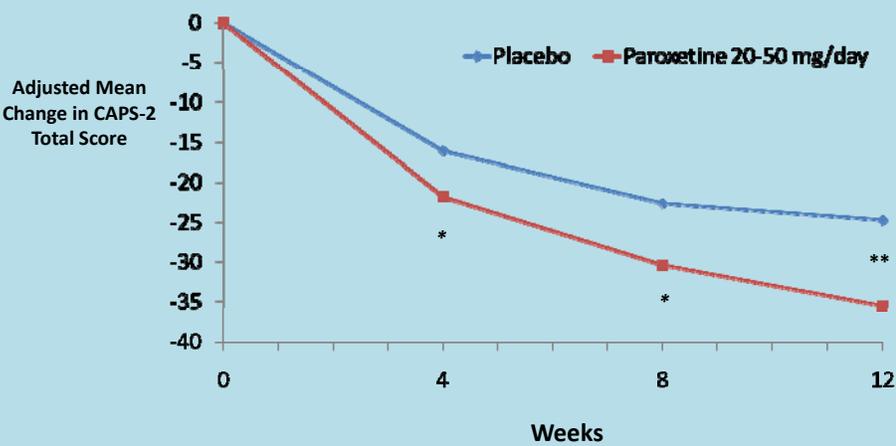

# 1. Medication


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## Paroxetine Flexible-Dose Study





| Weeks | Placebo (Adjusted Mean Change) | Paroxetine 20-50 mg/day (Adjusted Mean Change) |
|-------|--------------------------------|--|
| 0     | 0                              | 0  |
| 4     | -16                            | -22*   |
| 8     | -23                            | -31*   |
| 12    | -25                            | -36**  |

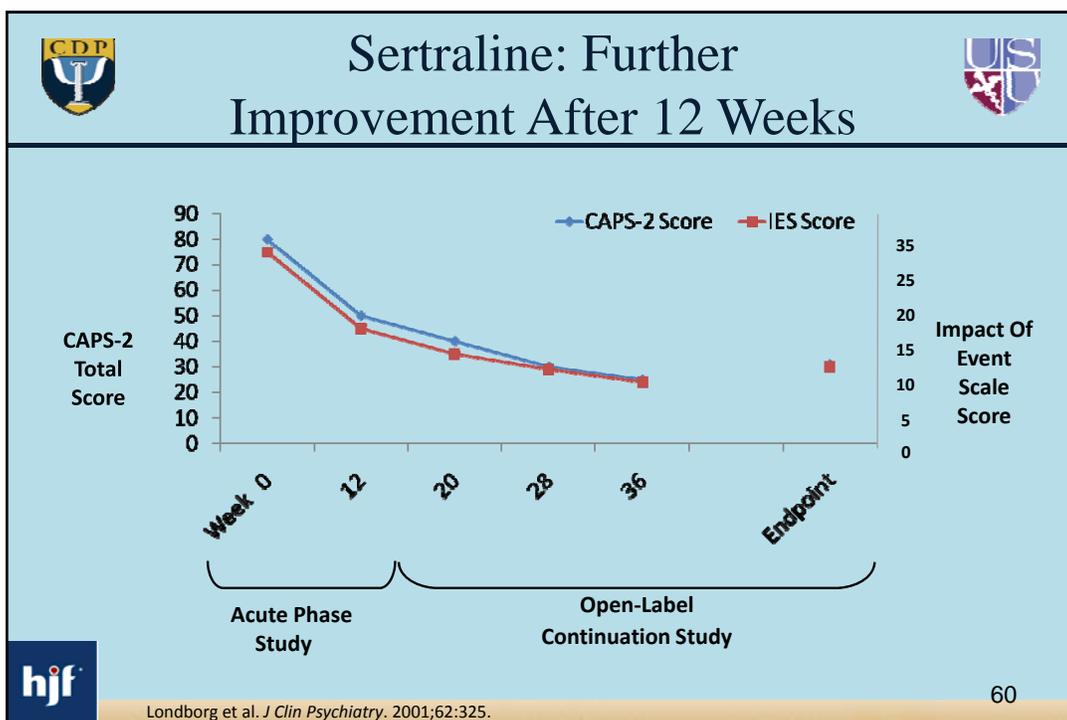
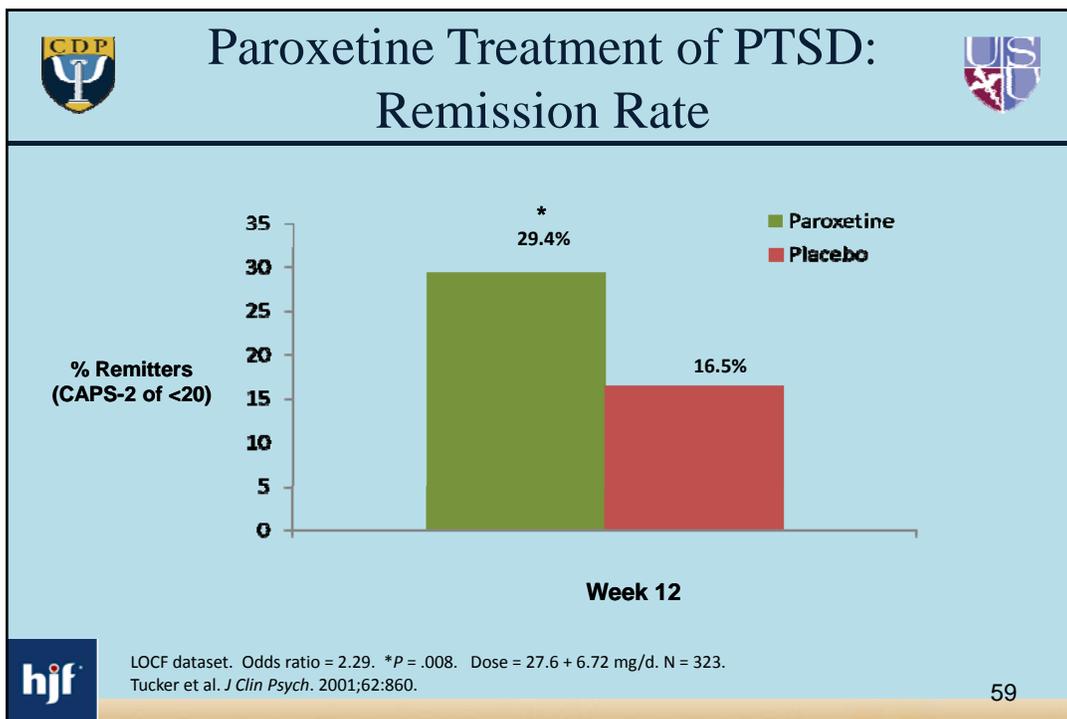


LOCF dataset. \* $P < .05$ ; \*\* $P < .001$ .

Mean dose at endpoint = 32.5 mg/day.

Tucker et al., 2001.

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## 2. Cognitive Processing Therapy (CPT)



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### Cognitive Processing Therapy Is...



a short-term  
evidence-based  
treatment for PTSD

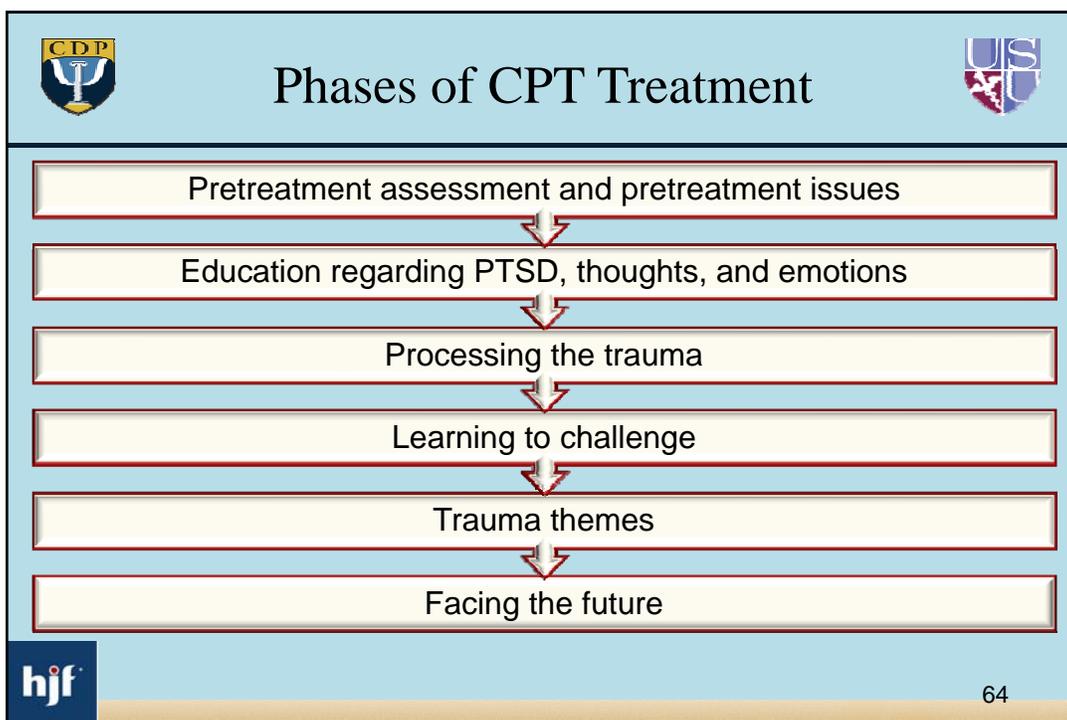
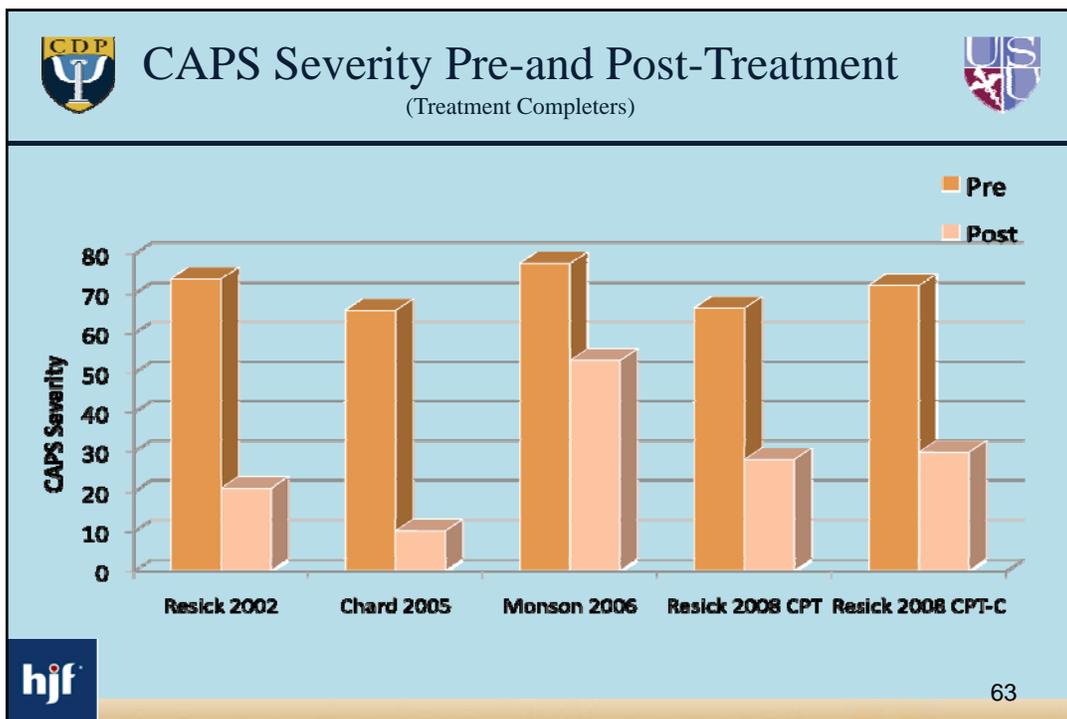
a specific protocol  
that is a form of  
cognitive behavioral  
treatment

predominantly  
cognitive and may  
or may not include a  
written account

a treatment that can  
be conducted in  
groups or  
individually



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### 3. Prolonged Exposure Therapy (PE)



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### Prolonged Exposure Therapy (PE)

Two main factors serve to prolong and worsen post-trauma problems:

- 1) Avoidance of trauma-related material including triggers, feelings, activities, thoughts, images, and situations.
- 2) The presence of inaccurate or unrealistic thoughts and beliefs.
  - “The world is unpredictably dangerous.”
  - “I can’t cope.”

**Avoidance prevents the client from processing the trauma and modifying cognitions.**



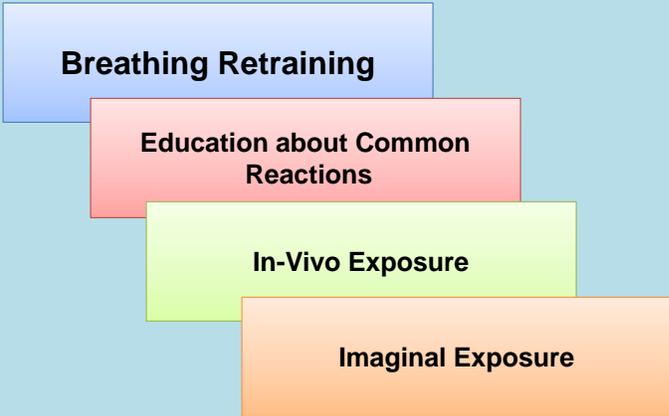
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## Prolonged Exposure Therapy (PE)



- Appr 10 sessions
- 90 minutes each
- Structured
- Homework
- Taping /recording



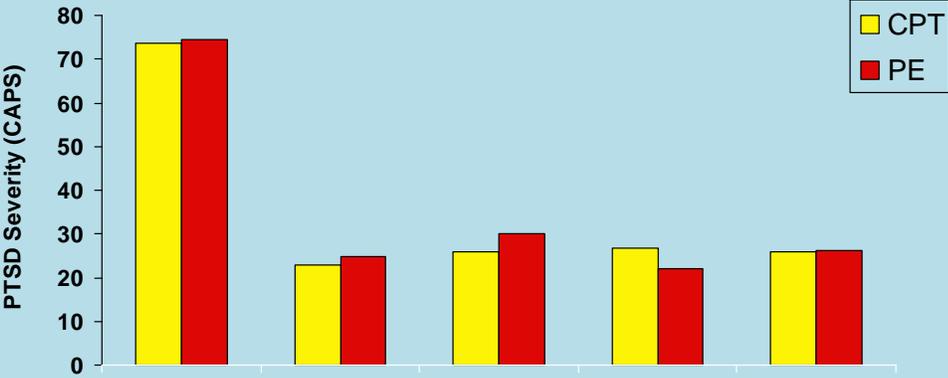
*Confront, confront, confront what you want to avoid!*


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## CPT and PE Follow-Up (“Cross-sectional”)





|         | Pre | Post | 3 mo | 9 mo | 5+ yr |
|---------|-----|------|------|------|-------|
| CPT, N= | 83  | 55   | 50   | 41   | 63    |
| PE, N=  | 88  | 55   | 51   | 39   | 64    |


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All participants who were available at each data point Resick et al., 2005



## 4. Image Rehearsal Therapy (IRT)



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## Imagery Rehearsal Therapy (IRT)



- Session 1: Introduce treatment approach
- Session 2: Identify a recurring nightmare
- Session 3: Brainstorm possible changes to dream  
Write out new dream script
- Session 4: Review success with practice and any changes in nightmare  
Consider any changes necessary to new script



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## 5. Eye Movement Desensitization Processing (EMDR)



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## Eye Movement Desensitization Reprocessing (EMDR)

Steps:

1. History and treatment planning
2. Preparation
3. **Assessment**
4. **Reprocessing, Desensitization and Installation**
5. **Same as Step 4**
6. Body Scan
7. Closure
8. Reevaluation



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## Eye Movement Desensitization Reprocessing (EMDR)



### Step 3: Assessment

Therapist asks patient to identify:

- a. Target or visual image of the trauma memory and related emotions and sensations
- b. Negative belief related to the trauma memory
- c. Positive belief he /she would like to have about self

### Steps 4 & 5: Reprocessing, Desensitization, and Installation

- a. Therapist has patient recall target image while using a set of rapid bilateral eye movements for brief period
- b. Therapist asks patient for reactions and associations.
- c. Therapist repeats procedures to facilitate “digestion” of trauma

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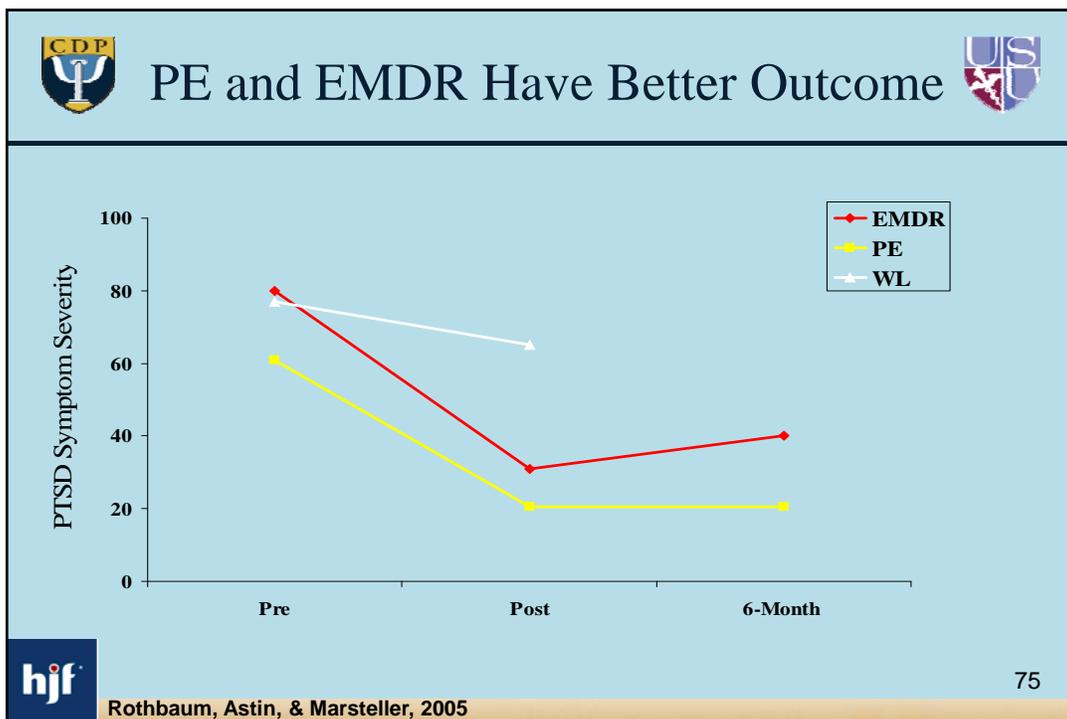
## Eye Movement Desensitization Reprocessing (EMDR)



Imagine the traumatic event  
Engage in lateral eye movements  
Focus on changes to image  
Repeat eye movements  
Generate alternative cognitive appraisal  
Focus on the alternative appraisal  
Repeat eye movements

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## 7. Stress Inoculation Therapy (SIT)

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## Stress Inoculation Therapy (SIT)



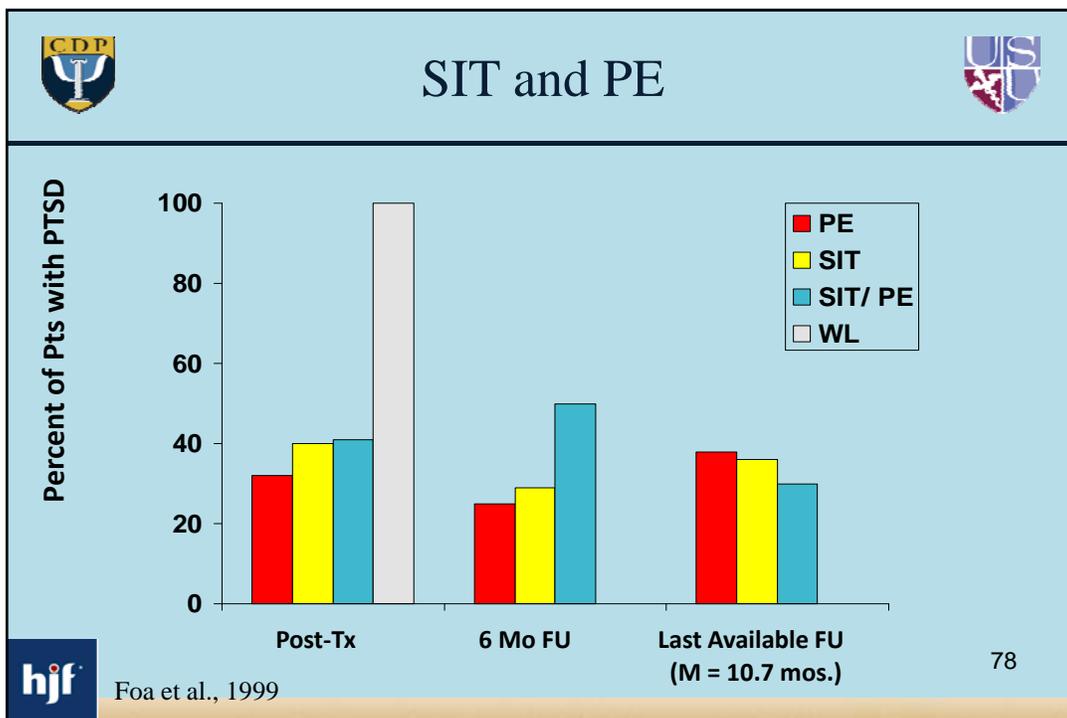
Phase I: Education  
Explanation of fear reaction, the role of cognitions, and the effect of relaxation

Phase II: Skill Building  
Relaxation training  
Thought stopping  
Cognitive restructuring  
Covert modeling  
Role playing

Phase III: Application  
Skill building and application phase overlap  
Help clients apply new skills to current life situation  
Relapse prevention  
Discuss future applications



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1. Elicit patient's experience of PTSD symptoms and related problems
2. Validate and normalize the patient's experiences and symptoms
3. Instill hope that many of the patient's problems are related to PTSD and should improve with treatment
4. Promote communication and foster the therapeutic alliance needed for successful treatment

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## Psychoeducation: Common Reactions to Trauma



- |  |  |
|--|--|
| <p>Fear and anxiety</p> <p>Intrusive thoughts about the trauma</p> <p>Nightmares of the trauma</p> <p>Sleep disturbance</p> <p>Feeling jumpy and on guard</p> <p>Concentration difficulties</p> <p>Avoiding trauma reminders</p> | <ul style="list-style-type: none"> <li>• Feeling numb or detached</li> <li>• Feeling angry, guilty, or ashamed</li> <li>• Grief and depression</li> <li>• Negative image of self and world             <ul style="list-style-type: none"> <li>• The world is dangerous</li> <li>• I am incompetent</li> <li>• People can not be</li> </ul> </li> </ul> |
|--|--|

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## Summary – Treatment of PTSD



Various evidence-based treatments for PTSD are available including PE, CPT, EMDR, SIT, and medication.

While different modalities for treating PTSD also are used, the strongest evidence supports individual treatments, although Group CPT is substantiated by research and there is growing support for CBT Couple's Therapy (C. Monson).

What evidence-based treatment approach works best with certain types of client has not been identified in the research. At this point, therapist preference for, confidence in, and comfort level with a treatment approach seem most important.

When using an evidence-based treatment, adhering to the protocol is extremely important instead of mixing elements from different "packages."