

What the Latest Research Tells Us About Treating PTSD Nightmares

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Sleep aspects of PTSD

- Intrusion: recurrent distressing dreams in which the content and/or affect of the dream are related to the traumatic event(s)
- Arousal: Sleep disturbance (e.g. difficulty falling or staying asleep or restless sleep)
- Are insomnia and nightmares purely symptoms of PTSD or are they a 'hallmark' of the disorder?

Sleep disturbance is the norm

- Sleep disturbance and nightmares are part of a normal and typical response to trauma (Pillar, Malhotra, & Lavie, 2000) and are usually transient (Lavie, 2001).

What are nightmares?

- Recurrent episodes of disturbing dream narrative
- Associated emotions: fear, anxiety, anger, disgust
- Upon waking: full alertness, little confusion, and narrative remembered
- Delay in return to sleep
- Occurrence in latter half of night

Not everything that looks like a nightmares is one!

Other parasomnias also prevalent

- Confusional arousals
- Sleep paralysis
- Sleep-related hallucinations
- REM Behavior Disorder

Trauma Exposure and Nightmares

- Survey of OEF/OIF/OND veterans with trauma exposure
 - Prevalence of insomnia symptoms:
 - 77.1% moderate or severe
 - Prevalence of nightmares:
 - 50.7% moderate or severe

PTSD and Nightmares

- 52% of Vietnam Veterans w/ PTSD had nightmares compared to 5% w/o PTSD (Neylan et al. 1998)
- Community PTSD sample 19% vs 4% (Ohayon and Shapiro 2000)
- Female sexual or physical assault survivors w/PTSD reported nightmares on average 5 nights a week (Krakow, Schrader, et al., 2002)

Across studies, prevalence ranges from 52%-96%

Nightmare content

- Can be symbolic or replicative
 - Veterans w/PTSD 50% combat themes, 85% mod to highly threatening, 53% set in present, 79% distorted elements
 - Veterans with PTSD more likely to be trauma-related compared to non-military PTSD

Nightmare patterns

- Significant variability in nightmare frequency and distress across nights
- May be multiple nightmares / night
- Days with higher stress associated with more frequent nightmares (Gehrman et al 2015)

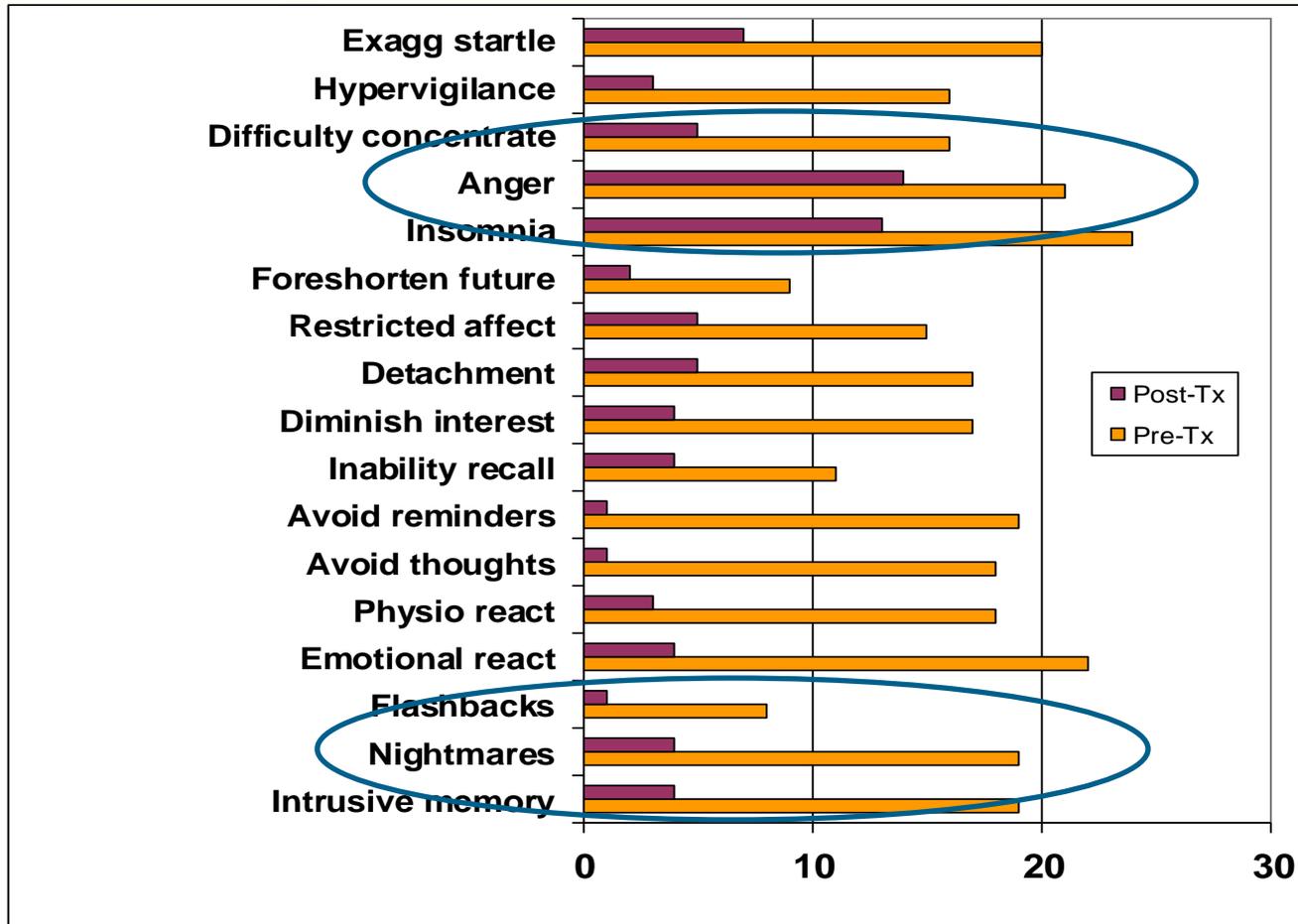
Consequences of nightmares

- Negative impact on quality of life
- Contributes to insomnia and a fear of sleeping
- Associated with greater suicidality
 - After controlling for depression, anxiety and other sx of PTSD



Treatment of PTSD-related nightmares

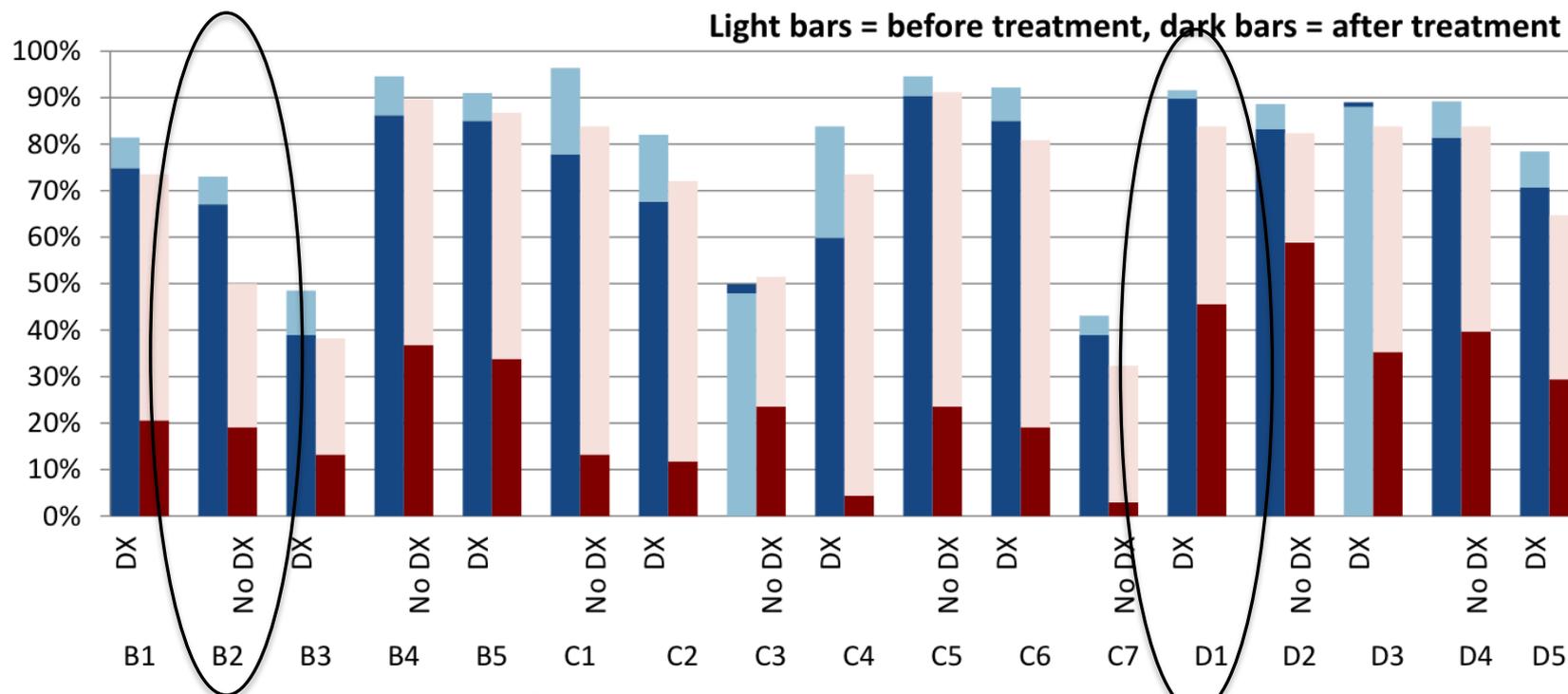
Residual sleep disturbance after trauma-focused treatment



Residual sleep disturbance after trauma-focused treatment



Symptom Presence by Loss of Diagnosis



Imagery Rehearsal Therapy (IRT)

- Nightmares are often resistant to treatment
- IRT is a cognitive behavioral intervention
- Based on the finding that pre-sleep thoughts are often incorporated into dreams

Imagery Rehearsal Therapy (IRT)

- Several versions around
 - Imagery Rehearsal (David Forbes)
 - Imagery Rehearsal Therapy (Barry Krakow)
 - Exposure, Relaxation and Rescripting Therapy (Joanne Davis)
- Biggest difference is in the amount of exposure

Imagery Rehearsal steps

- Identify a recurring nightmare
 - If multiple nightmares recur can pick one that is more distressing (Forbes) or less distressing (Krakow)
- Write out a nightmare script in detail
- Brainstorm possible changes to dream
- Write out new dream script
- Rehearse new version nightly before bed

Imagery Rehearsal steps

- Types of dream changes
 - Different ending
 - Inserting reminders
 - Transforming threatening objects
 - Distancing
- Can be realistic or unrealistic

Imagery Rehearsal efficacy

- ~20 published trials to date
- Generally reported to be efficacious
- Systematic review of published trials (Harb et al 2013)
 - Reviewed 16 trials
 - Rated on a scale for psychotherapy trials
 - Mean rating of 3.14 (out of 10)
 - Most had significant methodologic limitations

Imagery Rehearsal efficacy

- Largest trial to date (Cook et al 2010)
 - Vietnam veterans with PTSD
 - Randomized 61 to IR and 63 to a psychoed control delivered in groups
 - No significant improvement in nightmare frequency (primary outcome)
 - Some improvement in nightmare distress
- Similar trial conducted in OEF/OIF/OND veterans with similar results

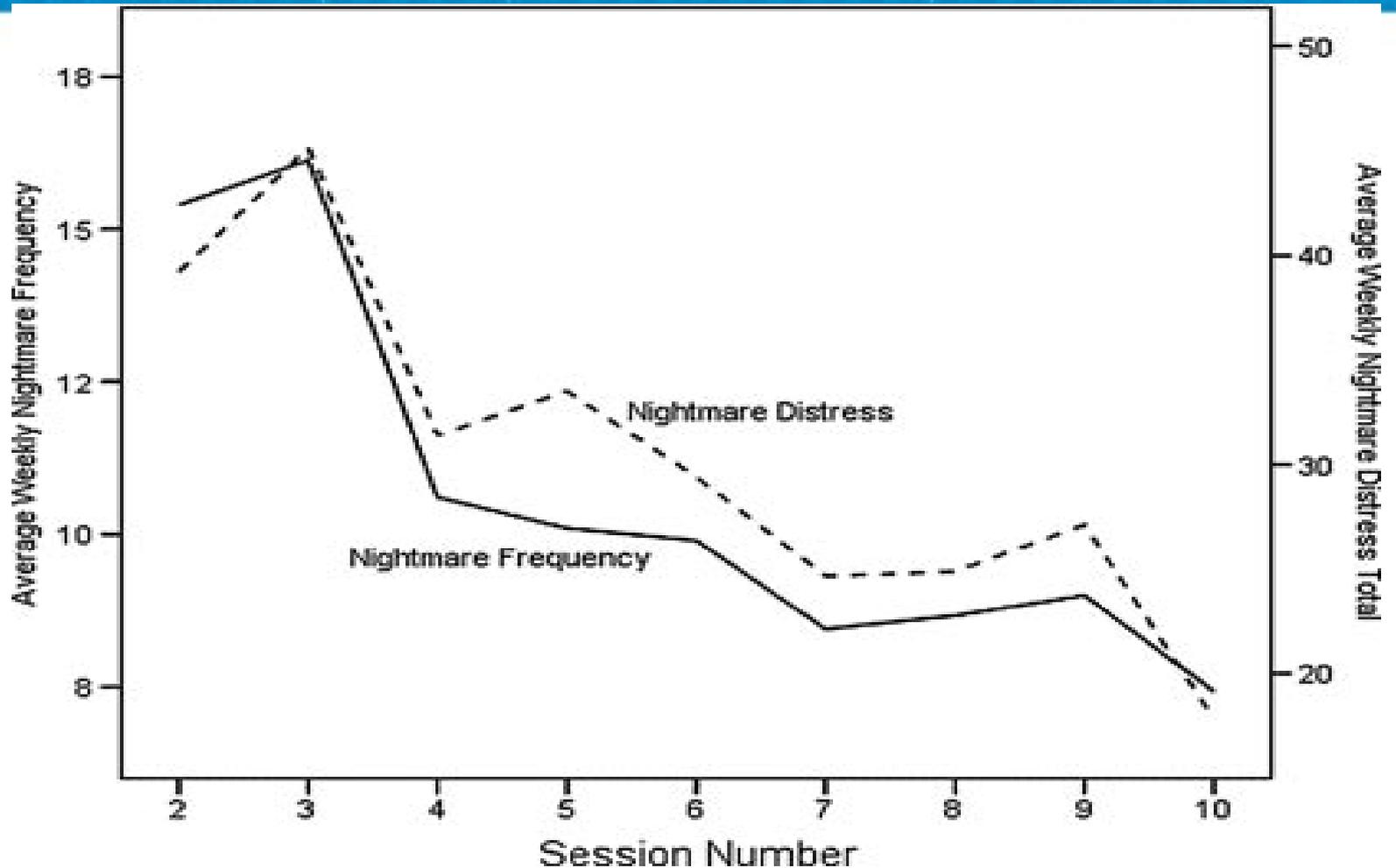
Imagery Rehearsal efficacy

- Summary of trials
 - Overall effects for veterans are modest
 - Works very well for some individuals
 - Preliminary: better effects in women and in those with high verbal learning

IR combined with other treatments

- Cognitive behavioral treatment of insomnia (CBT-I)
- Trauma-focused treatment
- How should sequencing be done?
 - If ready to start trauma-focused treatment, strike while the iron is hot
 - If reluctant to engage, consider starting with sleep-focused treatment

Combined CBT-I + Imagery Rehearsal



Prazosin

- Alpha-1 adrenergic antagonist usually used to treat high blood pressure
 - Crosses blood-brain barrier
 - Short half-life
 - Titrate dose slowly to avoid orthostatic hypotension
 - Doses of 12 mg or higher may be needed
 - Side-effects: light-headedness, nasal stuffiness

Prazosin

- Overall effects in several clinical trials
 - Reduces nightmare frequency
 - Reduces “non-nightmare distressed awakenings”
 - Improves REM sleep continuity
 - Not curative (“don’t take – don’t sleep”)

Prazosin

- Largest trial to date (Raskind et al, NEJM 2018)
 - Part of VA Cooperative Studies Program
 - 13 VA medical centers
 - 304 participants randomized to prazosin or placebo
 - At 10 and 26 weeks of treatment, no significant difference in nightmares (CAPS) or sleep quality

Very surprising, disappointing results

Prazosin

- Does prazosin work?
 - Problems with the selection of subjects?
 - Those with higher pretreatment blood pressure had larger improvements in nightmares (Raskind et al, Biol Psychiatry 2016)
 - Need to target those with greater hyperarousal?

Prazosin

VA/DOD Clinical Practice Guideline for the Management of Posttraumatic Stress Disorder and Acute Stress Disorder

- 28a For global symptoms of PTSD, we suggest against the use of prazosin as mono- or augmentation therapy.
- 28b For nightmares associated with PTSD, there is insufficient evidence to recommend for or against the use of prazosin as mono- or augmentation therapy.

Thinking beyond nightmares

- Part of trauma-associated sleep disorder (TSD)? (Mysliwiec et al, Sleep Med Rev 2018)
- Features of TSD
 - Trauma-related nightmares
 - Disruptive nocturnal behaviors (vocalizations, motor behavior)
 - Autonomic hyperarousal

Trauma-associated Sleep Disorder

- Proposed as a new type of parasomnia
- Initial treatment studies find efficacy of prazosin treatment
- Does this diagnosis help us better understand the nature of post-traumatic nightmares and their treatment?
 - Future research is needed

Conclusions

- Nightmares are common in veterans with PTSD
- Nightmare features and patterns can vary
- Psychotherapy (imagery rehearsal) has mixed evidence of efficacy
- There is a lack of good pharmacotherapy treatment options
- Need for personalized treatment



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*Follow the
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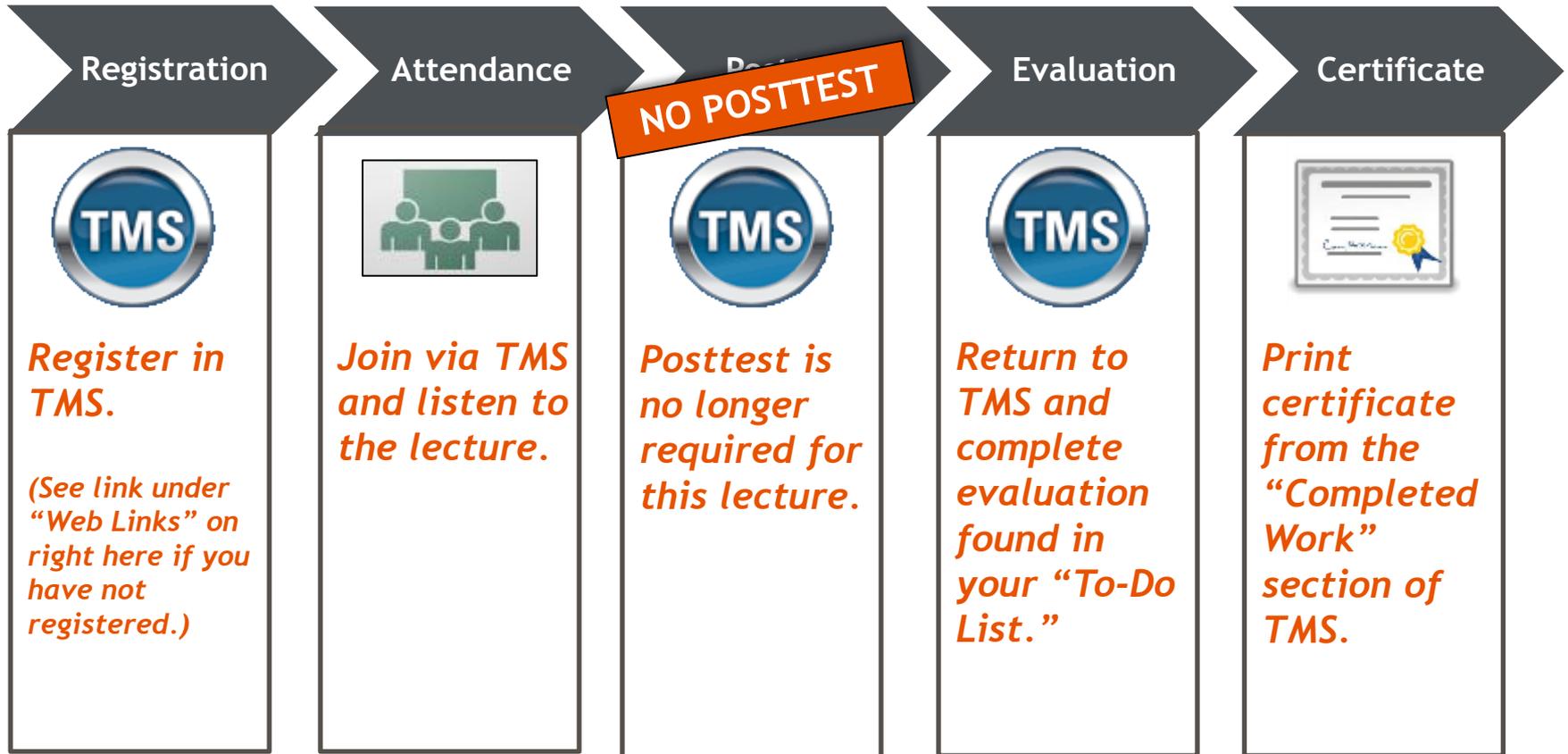
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CEU Process (for VA employees)





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UPCOMING TOPICS

SAVE THE DATE: Third Wednesday of the Month from 2-3PM (ET)

July 18 Balancing Clinical Flexibility while Preserving Efficacy in Delivering EBPs for PTSD Tara Galovski, PhD

August 15 The Continuum of Care for PTSD Treatment Kelly Phipps Maieritsch, PhD

September 19 PTSD and Women's Mental Health Suzanne Pineles, PhD

October 17 Dementia Risk in Veterans with PTSD and a History of Blast-Related TBI David Cifu, MD

For more information and to subscribe to announcements and reminders go to www.ptsd.va.gov/consult