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 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

Zayfert & Deviva, 2004
Residual sleep disturbance after trauma-focused treatment

Symptom Presence by Loss of Diagnosis

Light bars = before treatment, dark bars = after treatment

Slide courtesy of Paula Scnurr, Ph.D.
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

Swanson et al., Journal of Traumatic Stress, 2009
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
Please enter your questions in the Q&A box and be sure to include your email address.

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

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<td>Balancing Clinical Flexibility while Preserving Efficacy in Delivering EBPs for PTSD</td>
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<td><strong>August 15</strong></td>
<td>The Continuum of Care for PTSD Treatment</td>
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