An Experience Sampling Study of Sleep, PTSD, and Alcohol

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Purpose
This study will analyze temporal (i.e., day-to-day) associations between sleep disturbance, posttraumatic stress symptoms (PTSS), and alcohol use disorder (AUD) symptoms. Additionally, it will test the effects of a sleep intervention on PTSS and AUD symptoms in Operation Enduring Freedom (OEF), Operation Iraqi Freedom (OIF) and Operation New Dawn (OND) veterans.

Background
- Posttraumatic Stress Disorder (PTSD) negatively affects the lives of many veterans and increases risk for AUD.
- Sleep disturbance is common in those with PTSD and AUD and especially common in veterans though understudied and undertreated.
- Very few studies have analyzed sleep, PTSD, and alcohol use concurrently. None of these studies were longitudinal and they did not use objective measures of sleep.
- Cognitive Behavioral Therapy for Insomnia (CBT-I), the gold standard of sleep interventions, was recently adapted for veterans.
- CBT-I is effective at treating primary insomnia in veterans though its effect on comorbid PTSD and AUD is unknown.

Study Population and Setting
100 OEF/OIF/OND veterans age 18-55 recruited from USD and areas surrounding Vermillion, SD.
- Inclusion Criteria: Experienced posttraumatic stress symptoms and alcohol-related problems.
- Exclusion Criteria: Significant suicidal ideation, psychotic symptoms, incapacitating alcohol use disorder, severe sleep apnea, and receiving current treatment for sleep problems

Measures
Objective Sleep Measure: actigraphy collected via Readiband™
CBT-I Intervention: five-week at-home intervention administered via MP3s and PDFs
Baseline Variables
- Demographics
- Trauma Exposure – DRRI-2 and the CES
- PTSD symptoms – PCL-5 & CAPS-5
- Alcohol Use and Problems – DDQ, AUDIT, SIP-2R
- Sleep Disturbance – PSQI
Control Variables
- Depression – HRSD
- Affect – PANAS
Experience Sampling Variables will be collected 8 random daily and 1 morning questionnaires on participants' mobile phones
- PTSD symptoms
- Alcohol consumption and AUD symptoms
- Sleep Quality
- Compliance with sleep intervention

Aims
Aim #1:
Conduct a randomized controlled pilot trial of veterans to examine the effectiveness of a brief therapeutic sleep intervention (CBT-I) that is hypothesized to:
- Improve sleep
- Decrease PTSS
- Decrease AUD symptoms

Aim #2:
Conduct an experience sampling study to examine temporal (i.e., day-to-day) associations between:
- Sleep disturbance
- PTSS symptoms
- AUD symptoms

Next Steps
- Encourage routine sleep assessments in clinical settings if disturbed sleep is shown to be a risk factor in maintaining PTSD symptoms and alcohol misuse.
- If effective, the intervention could be implemented in rural settings where veterans have limited access to treatment.

Contact Information
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References available upon request.