(25 minute increase, p=0.001). Finally, sleep efficiency scores were significantly increased compared to baseline at week-2, week-3, week-4 and post-treatment (10–18 percent increase from baseline, all p<0.001).

Conclusion: Bedtime restriction therapy did not lead to increased levels of subjective sleepiness during CBT-I in patients with COMISA. In fact, by the fourth week of CBT-I, sleepiness scores were significantly lower than at baseline. This decrease in subjective sleepiness was accompanied by increased total sleep time and sleep efficiency throughout treatment. These data suggest that CBT-I is a safe and effective treatment in patients with COMISA.

Support (If Any): This research was made possible by an on-going National Health and Medical Research Council-funded grant examining different treatment options in patients with co-morbid insomnia and sleep apnea (nhmrc 104959).

0376 PATTERN OF SLEEP MEDICATION USE IN THE DEPARTMENT OF DEFENSE
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Introduction: Use of sleep medications in the U.S tripled from 1998–2006, with current estimates leveling off at 4% of the adult population. Although data on overall use in the military population is scarce, one small survey found 18% of active duty service members (ADSM) post-deployment used sleep medications. This study uses dispensing data to compare the prevalence of sleep medication use and demographic characteristics of users among ADSM and non-ADSM receiving care in the Joint Health Services Enterprise (JHSE) from 2009–2015

Methods: Patients dispensed estazolam, flurazepam, quazepam, temazepam, triazolam, eszopiclone, zalepon, zolpidem, ramelteon, doxepin or trazodone during the study time period were included in the study. Demographic characteristics were assessed at the first dispensing within each year. Prevalence of sleep medication use was calculated as the number of patients receiving one or more prescriptions divided by the total number of eligible beneficiaries within each year. Chronic therapy was defined as 90 days or more of any sleep medication dispensed within a six month time period among new users.

Results: Use of sleep medication in ADSM increased from 5.7% in 2009 to 6.8% in 2012 and declined to 5.4% in 2015. However, use in non-ADSM remained consistent over time, with a slight decline from 4.0% in 2009, to 3.8% in 2015. Overall and age-specific use was consistently 1%-3% higher for ADSM compared to non-ADSM with greater differences in the older age group. Specifically, ADSM 18–24 years had about 1% higher use while ADSM 45–64 years had 3.5% higher use compared to non-ADSM of similar ages. In both populations, use was consistently higher among females and increased with age. Zolpidem, temazepam and eszopiclone comprised more than 70% of all medications dispensed. Approximately 25% and 35% of all users had at least one episode of chronic therapy for ADSM and non-ADSM, respectively.

Conclusion: While military beneficiaries have similar rates of sleep medication use to the U.S. population, ADSM have higher overall and age-specific usage. Although use in ADSM is decreasing, sleep disturbances and insomnia are highly prevalent disorders in this population that require further evaluation.

Support (If Any): Supported by: National Health and Medical Research Council-funded grant examining different treatment options in patients with co-morbid insomnia and sleep apnea.

0377 ACTIVITY MEASURES POST CBT-I FOR CHRONIC PAIN
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Introduction: CBT-I has been shown to improve both sleep and pain in chronic pain patients. The mechanisms by which CBT-I improves pain are poorly understood. While studies have shown that increase in physical activity is associated with positive outcomes, the impact of CBT-I on activity has been largely unexplored. In the present analysis, the association between improved pain and diurnal activity was assessed.

Methods: 15 patients (Mean Age=42.9±10.4; f=12) with chronic pain (non-cancer neck or back pain) who received 8-session CBT-I were evaluated by 7-day actigraphy at baseline and post-treatment (only 10 subjects completed actigraphy at both time-points), and completed the Multidimensional Pain Inventory (MPI) for a pain severity score (MPI-Severity) at both time-points (all 15 participants completed both MPI assessments). Activity was averaged per-hour using minute-by-minute activity count epochs. Mixed models were utilized to allow for actigraphic missing data and to evaluate the relationship between pain improvement (Responders vs. Non-Responders), phase (baseline vs post-CBT-I), and diurnal time (24-hr day) with activity counts per hour. Treatment response was determined based on improvement on MPI-Severity≥30% from baseline. Additionally, exploratory paired-sample t-tests were utilized to evaluate time-of-day of improved activity.

Results: Based on the MPI-Severity score, there were 8 Responders and 7 Non-Responders. There were no significant differences in activity at baseline. Mixed models revealed a significant phase*group interaction (p=0.003) with significant main effects for phase (p=0.003) and time of day (p<0.001). While there was no phase*group*time-of-day interaction, paired-sample t-tests revealed that Responders significantly increased activity in the morning (6-9AM) while no significant activity increase is noted for Non-Responders.

Conclusion: These pilot findings suggest that CBT-I improvements in pain severity are associated with diurnal activity increase. Chronic pain patients who achieved clinically meaningful pain reduction tended to have increased activity during the day compared to Non-Responders. The change was more notable with the morning activity. The results suggest the potentially greater role of improving morning activities for pain management. Future studies utilizing larger sample sizes are necessary.

Support (If Any): Supported by: NINR NR5R21NR009080-02.

0378 OCCUPATIONAL THERAPIST DELIVERED COGNITIVE BEHAVIORAL THERAPY FOR INSOMNIA TO POST-9/11 VETERANS IN COLLEGE: A WAIT LIST CONTROL PILOT STUDY
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Introduction: The prevalence of chronic insomnia in post-9/11 Veterans is substantial, especially for those with service-connected injuries. Veterans’ access to cognitive behavioral therapy for insomnia...
B. Clinical Sleep Science

0379

EFFECTS OF AN INTERNET-BASED VIDEOCONFERENCE COGNITIVE BEHAVIORAL THERAPY FOR INSOMNIA INTERVENTION

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Introduction: Insomnia is a prevalent condition affecting 30–50% of breast cancer survivors (BCS). Insomnia can originate during primary cancer treatment and persist for years, affecting long-term health and well-being throughout survivorship. Cognitive Behavioral Therapy for Insomnia (CBTI) is an effective treatment, but a dearth of trained providers requires the exploration of creative methods of CBTI delivery. Rural BCS, already vulnerable due to a lack of healthcare providers, have little access to specialty care such as CBTI. The aim of this study was to examine the results of an internet-based videoconference CBTI in a rural BCS population.

Methods: Eighteen rural BCS were enrolled in a 6-week CBTI intervention, using a pre/post study design. The individualized CBTI was provided via an internet-based videoconference using Adobe Connect. Participants completed sleep diaries daily throughout the 6-week CBTI, and symptom and quality of life surveys before and after the intervention. Dependent t-tests were used to compare changes in primary sleep outcomes, symptom burden, and quality of life.

Results: All primary sleep measures improved significantly after the CBTI intervention, including sleep efficiency (p < .001), sleep latency (p < .001), wake after sleep onset (p = .001) and total sleep time (p = .001). Symptoms including fatigue (p < .001), pain (p < .001), and menopausal symptoms (p < .001) decreased significantly after treatment. Global quality of life increased significantly (p < .001), as well as the subscales of emotion (p < .001) and cognition (p < .001).

Conclusion: CBTI is an established treatment for insomnia in BCS, but many rural survivors lack access to CBTI as a face to face intervention. This study contributes to the evidence that an online, videoconference CBTI intervention can be an effective method to help treat insomnia in rural BCS.

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0380

OBJECTIVE AND SUBJECTIVE EFFECTS OF FOUR CLASSES OF HYPNOTICS ON SLEEP CONTINUITY IN PATIENTS WITH CHRONIC INSOMNIA: A FIRST PASS ANALYSIS

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Introduction: Little is known about the relative efficacy of the medications used to treat insomnia. Accordingly, a meta-analysis was undertaken to examine how objective (PSG) and subjective (sleep diary) measures of sleep continuity vary by drug class.

Methods: PubMed searches, from 1967-June 2016, yielded 327 possible articles. Inclusion criteria were that the studies: 1) were randomized placebo controlled trials of medications commonly used as hypnotics (BZs, BZRAs, SADs, DORAs, or melatonin agonists [MELA]); 2) were between 1 and 14 days in duration; 3) had pre- and post-treatment sleep continuity data and reported as means and standard deviations (or equivalent). Studies were excluded if they allowed for non-nightly dosing (or middle-of-the-night dosing) and/or included participants not diagnosed with insomnia based on DSM or ICSD criteria. Weighted effect sizes (ES) were computed for the pre-post change data and were compared to the study placebo condition. Between class differences were assessed using a threshold approach (if the ES of one class was 2x larger than another, the difference [for this preliminary analysis] was considered to be significant).

Results: Sufficient data were available for only BZRAs, SADs, DORAs, and MELA. On PSG measures, the relative efficacy for the four classes of medications were as follows: SL (BZRAs>MELAs>DORAs>SADs); WASO (SADs>BZRs>DORAs>MELAs); and TST (BZRAs>SADs>DORAs>MELAs). On sleep diary measures, the relative efficacy for the four classes of medications were as follows: SL (BZRAs>MELAs>DORAs>SADs); WASO (BZRAs>SADs>DORAs>MELAs); and TST (BZRAs>SADs>DORAs>MELAs).

Conclusion: These preliminary results suggest that, on PSG measures, BZRAs and MELAs have larger effects on sleep initiation and SADs have larger effects on sleep maintenance. On sleep diary measures, BZRAs have larger effects on sleep initiation and BZRAs and SADs have larger effects on sleep maintenance.