Conclusion: After adjusting for overall encounter rates, ED encounters for suicidal ideation are more likely to occur in the morning. Although the morning peak in incident risk is later than the reported nocturnal risk for incident suicide, this may reflect a delay between when an individual develops suicidal ideation and when they seek or receive treatment.
Support (If Any):

0665

MINDFULNESS AS A PROTECTIVE FACTOR FOR CHRONIC INSOMNIA IN COLLEGE STUDENTS

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Introduction: College students are at high risk for developing insomnia and co-morbid psychological distress. The aim of this research was to assess whether the lack of endogenous mindfulness was a risk factor for insomnia.
Methods: In order to address this issue, an archival analysis was conducted with a data set from MUN where the relationship between chronotype, mental health, sleep quality, and social support was assessed (n=3,160; 2,266 women; $\bar{X}$age=22 years). The proband subsample of interest were subjects that completed the HADS, MEQ, the ISI, and the Mindful Attention Awareness Scale (MAAS). The MAAS is a 15 item self-report measure, where each item is scored on a six-point Likert scale. Scores range from 15-90, higher scores are indicative of greater mindfulness. In order to evaluate the relevance of mindfulness, the overall sample was split into two groups (endogenous mindfulness [average score of ≥4.2]): n=647; $\bar{X}$age=22.4 years; nonendogenous mindfulness [average score of ≥4.2]: n=1,505; $\bar{X}$age=22.04 years).
Results: Subjects (n=2,152) were between the ages of 18-35 ($\bar{X}$=22+/- 3.72) and included primarily Caucasian individuals (86.6 %) and individuals who identified as female (71.7%). The means and ranges for the ISI, MAAS, and HADS were as follows: 9.0 + 5.6 (0-28), 3.7+.98 (1-6), and 5.3 + 3.9 (0-21), respectively. A correlation of -0.27 ($p<0.001$) was found for endogenous mindfulness (scale score range 1-6) and insomnia (scale score range 0-28) and -0.25 ($p<0.001$) for non-endogenous mindfulness (scale score range 1-6) and insomnia. Moderator analyses were conducted, and it was found that depression moderates the relationship between mindfulness and insomnia, (HADS depression, $\Delta R2 = .2$, $\Delta F(3, 643)=57.6$, $p=.012$, $b=-.3$, $t(643)=-2.5$ $p< .05$. Results should be interpreted with caution as the effect size was less than 0.1.
Conclusion: There was a relationship found, in both groups, between mindfulness and the ISI, where the scores on the ISI were lower when mindfulness was high. This suggests that there is a moderate linear relationship between mindfulness and insomnia. This association needs to be further evaluated in samples that have a broader range of ISI scores and with analyses that more carefully parse the moderating influence of depression. Analyses are ongoing.
Support (If Any): Support: K24AG055602

0666

SLEEP QUALITY AND DEPRESSION AMONG HIGH-RISK PERINATAL WOMEN: IMPACT OF THE COVID-19 PANDEMIC

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Introduction: The COVID-19 pandemic has negatively impacted sleep and mood on a global scale. To date, a handful of studies have reported on sleep and mood in perinatal women during the pandemic. They suggest that many pregnant women have poor sleep quality and depression. However, since these studies are cross-sectional with no comparison group, it is difficult to determine whether they are suffering more now.
Methods: The current study compared sleep quality and the presence of likely clinical depression in perinatal women from two studies (one prior to the pandemic (~1998)) and one during the pandemic (Aug 2020 – April 2021). All women had a history of MDD/PPD. Sleep quality and depression were ascertained at ~36 weeks and 4 weeks postpartum for both groups. Sleep quality was characterized by the Pittsburgh Sleep Quality Index (PSQI). Depression was ascertained by the Hamilton Depression Rating Scale (HRDS) for the non-pandemic group and the Edinburgh Postnatal Depression Scale (EPDS) for the pandemic group. PSQI scores were analyzed continuously and categorically, while the depression scales were categorized according to published cutoffs.
Results: The Mage = 31.1 (4.2) and did not differ between groups; 84% were White. Sleep quality in late pregnancy did not differ between groups (7.62 (3.5) vs 7.16 (3.8), (ns), pre-pandemic vs pandemic), but they did differ at 1 month PP (7.10 (3.1) vs 8.7 (2.6), $P < .001$). The number of women who met criteria for depression in late pregnancy differed (28(41.1%) vs 7 (7.5%) $X2 = 26.1$, $P < .001$), but not at 1 month PP (9 (13.2%) vs 18(19.3%), $X2 = 1.05$, $P = .31$). Sleep quality in late pregnancy was correlated with whether a woman met criteria for depression during pregnancy ($r = .22$, $P = .005$), but not at 1-month postpartum (ns).
Conclusion: Our findings suggest that the pandemic negatively impacted sleep quality in the first month postpartum, but not the rate of depression. We interpret these findings with caution due to varying methodologies. The pre-pandemic group was a RCT of 4 drug treatment groups in postpartum, and the pandemic group women used the SNOO®, a robotic, responsive bassinet.
Support (If Any): Happiest Baby, Inc

0667

THE EFFECT OF TINNITUS ON SLEEP ARCHITECTURE IN PATIENTS WITH DEPRESSION

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Introduction: There is an established link between tinnitus (an auditory symptom affecting sound in the ear or head, in the absence of auditory stimulus) and depression in adults. However, there is a lack of research into the effect of tinnitus on sleep architecture in this depression.

Methods: Female participants (n=149) with sleep disturbance and temporomandibular joint (TMJD) pain were recruited as part of a treatment trial. Data were used to identify a cohort of participants with clinically significant depressive symptoms (CES-D >16), with and without tinnitus. We examined the pre-randomization polysomnography (PSG) dataset, and calculated sleep architecture, and relative spectral power (Alpha, beta, theta, delta). We compared cohorts using independent t-tests, testing for differences in architectural and spectral sleep parameters, controlling for anxiety symptoms.
Results: 14 females (mean age = 41.76) reporting current tinnitus were age and depression severity matched with 14 females reporting no tinnitus (mean age = 41.27). Groups did not differ significantly in age (p = 0.91), BMI (p = 0.868), race (p = 0.328) or severity of depressive symptoms (CES-D: 23.93 No tinnitus vs 25.07 Tinnitus, p = 0.540), but the tinnitus group reported significantly higher anxiety (GAD-7: 9.43 no tinnitus vs 13.36 Tinnitus, p = 0.016). Data indicated TMJD patients with tinnitus had greater N2 sleep percentage (24.243% no tinnitus vs 57.200% Tinnitus, p = 0.033) compared with controls. There were no significant differences in N1% (4.2% No tinnitus vs 3.7% Tinnitus, p = 0.874), SWS% (23.164% No tinnitus vs 17.236% Tinnitus, p = 0.217) or REM% (26.386% No Tinnitus vs 21.88% Tinnitus, p = 0.238) between groups. Analysis of spectral data showed no significant differences in relative alpha (0.129 No tinnitus, 0.143 Tinnitus, p = 0.099), beta (0.186 No tinnitus vs 0.188 Tinnitus, p = 0.814), theta (0.123 No Tinnitus vs 0.125 Tinnitus, p = 0.069), or delta power (0.360 Tinnitus vs 0.346 Tinnitus, p = 0.399).
Conclusion: Our results indicate an association between tinnitus and increased N2% in TMJD participants reporting sleep disturbance and depressive symptoms. The effect of tinnitus on objective sleep parameters, in the context of depressive symptoms warrants further study.
Support (If Any): This research study was supported financially by the NIH Grant R01 DE019731 (Haythornthwaite, JA and Smith, MT).[MR1] [MR1]Don't include this in the main body, it'll use too many words. If there's a section on the submission portal to include this, add it. If not can just put the grant reference (as one word) in brackets after "treatment trial"

0668

THE EFFECT OF ANTIDEPRESSANT MEDICATIONS ON SLEEP ARCHITECTURE IN A PRIMARILY MIDDLE-AGED SAMPLE OF WOMEN WITH MULTI-MORBIDITIES: CHRONIC INSOMNIA, CHRONIC PAIN, AND DEPRESSION

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Introduction: Depression commonly impacts sleep architecture by increasing REM and decreasing stage 3 sleep. Growing evidence suggests antidepressants may reduce or reverse those effects in depressed individuals but has largely ignored their impact in the context of multi-morbidities. Depression, chronic insomnia, and chronic pain are common in middle-aged women and are thought to share a common neurobiological basis. They often co-occur, and thus, represent a common multi-morbidity triad. Here we examine whether %REM and %stage 3 sleep differ as a function of antidepressant use (yes/no) in a primarily middle-aged sample of women with all three morbidities.
Methods: Female adults (18+ years, n=91, Mage=51, SD=10.16) with comorbid insomnia, chronic pain, and depression (≥17 BDI-II score) completed one night of ambulatory polysomnography and reported antidepressant medication use (yes/no) and type (SSRI/SNRI/SARI/TCA/NDRI) as part of baseline data collection for a RCT (SPIN, NCT02688569). ANCOVA (R v4.1.1) examined group differences (antidepressant use: yes/no) in %REM and %stage3 sleep, controlling for age and sleep medication use.
Results: Only %REM was significantly lower (F=6.213, p=.015) in antidepressant users (n=48, M=14.85, SD=9.38) versus non-users (n=43, M=19.23, SD=6.70). An exploratory follow-up ANCOVA examined whether antidepressant type was important. Two groups were formed based on antidepressant mechanism of action (medications affecting serotonin, i.e., SSRI/SNRI/SARI vs medications affecting other neurotransmitters, i.e., TCA/NDRI), and their means were compared. Only %stage3 sleep was significantly lower (F=7.937, p=.007) in SSRI/SNRI/SARI users (n=37, M=11.18, SD=9.28) versus TCA/NDRI users (n=11, M=19.36, SD=13.04).
Conclusion: Thus, general antidepressant medication use may help decrease REM, but the increase of stage 3 sleep depended on which medications were used (i.e., TCA/NDRI). These findings suggest a neurophysiological functioning difference between types of antidepressants, particularly for this population of women with chronic pain, insomnia, and depression. This difference may be due to SSRI/SNRI/SARIs impacting serotonin, which may have an impact on REM, but not stage 3 sleep. However, the current study only had a small group of people using TCA/NDRIs, limiting generalizability and inferences. Future longitudinal research with a larger sample size is needed to parse out the effects of each antidepressant medication type individually and over time.
Support (If Any): ClinicalTrials-NCT02688569, PI McCrae.

0669

THE ROLE OF HYPERSOMNOLENCE IN DEPRESSION: RESULTS FROM A LONGITUDINAL STUDY OF THE AMERICAN GENERAL POPULATION

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Introduction: Insomnia symptoms have often been pointed out as an important factor for the relapse and/or the maintenance of depression. However, the contribution of hypersomnolence in depression is less studied and the conclusions are unclear. Our aim is to examine the association between hypersomnolence and depression in the US general population.
Methods: This longitudinal study was carried out in eight states in the U.S. A total of 12,218 subjects were interviewed by phone during the first wave (W1) and 10,931 at the second wave (W2) three years apart. The analyses included only the subjects who participated in the 2 waves (N=10,931). Hypersomnolence symptoms and Major Depressive Disorder (MDD) were assessed according to DSM-5 criteria.
Results: At W1, 27.2% (95% CI 26.4%-28.0%) of the sample had at least one hypersomnolence symptoms listed in the DSM5 occurring at least 3 days per week. This prevalence at W2 was 26.4% (95% CI 25.6%-27.2%). The incidence of DSM5 hypersomnolence symptoms was 20.5% which represents a yearly incidence of 5.8%. For MDD, the prevalence was 5.1% (95% CI 4.7%-5.5%) and 4.2% (95% CI 3.8%-4.6%) in W1 and W2, respectively. At W1, 54.2% of participants with a MDD also had hypersomnolence. At W2, 50.7% of MDD subjects also reported hypersomnolence. After adjusting for age, gender and medical conditions, persistent hypersomnolence (i.e., reported at both interviews) predicted incident MDD (i.e., absent at the first interview but present at the follow-up) with a relative risk