

to their heterosexual peers. Minority stress (e.g., discrimination, victimization) may account for these differences, however little is known about these relationships and how generalized anxiety may play a role in sleep disturbance.

Objectives: Therefore, the aims of this study are to (a) understand the relationship between minority stress and sleep disturbance in a sample of sexual minority men, and (b) test whether these relationships are mediated by generalized anxiety.

Methods: In 2020, 241 sexual minority men were recruited across a south-eastern state in the USA. Participants were asked to respond to scales assessing perceived social stress, minority stress constructs (i.e., internalized homophobia, experiences of harassment, microaggressions), generalized anxiety, and sleep disturbance. Linear regressions were used to test the relationship between minority stress and sleep disturbance controlling for perceived social stress and to test mediation by generalized anxiety.

Results: Two minority stress constructs (experiences of harassment, and microaggressions) and perceived social stress were found to have a positive relationship with sleep disturbance. Generalized anxiety symptoms fully mediated the relationship between minority stress and sleep disturbance.

Conclusions: Because sleep quality has a profound impact on health, findings from this study suggest the need for psychological intervention to improve sleep for sexual minority men. Given that generalized anxiety fully mediates the relationship between minority stress and sleep, targeted anxiety-based interventions have the potential to reduce sleep disturbance disparities between heterosexual and sexual minority men.

Disclosure: No significant relationships.

Keywords: Anxiety; Sexual Minority; Sleep Disturbance; Minority Stress

EPV1476

Stress during the COVID-19 pandemic - impact on neuroplasticity

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Introduction: The world's population has been exposed to traumatic events and high levels of stress due to the ongoing COVID-19 outbreak. Stress is known currently as a universal experience, but the concept was first defined in 1936 by Hans Selye. It has been shown that stress is associated with impairments in neuroplasticity (e.g. neuronal atrophy and synaptic loss in the hippocampus, prefrontal cortex) and has a crucial role in almost all mental disorders.

Objectives: In this paper we aim to highlight the recent theoretical and experimental advances in neuroscience regarding stress induced neuroplasticity.

Methods: We analyzed scientific literature written in English and published between 2019-2021. We used the electronic portal PubMed-NCBI.

Results: In the last few years, molecular and cellular studies on animal models of stress related and stress-induced psychopathologies revealed alterations in gene expression, micro RNAs expression, as well as in intracellular signaling pathways that mediate the

stress induced adaptations. These findings have led to new theories regarding depression and anxiety in the molecular neurobiology field. It has been shown that stress reduces BDNF expression inducing neuronal atrophy in various brain areas. Contrastingly, other studies have demonstrated that chronic antidepressant treatment increases BDNF expression. Furthermore, a crucial role has been assigned to miRNAs in the development of chronic stress-induced depression-like behavior and neuroplasticity.

Conclusions: We hope that this paper will increase interest in the field of stress induced cellular and molecular changes. More research needs to be pursued in order to achieve a deeper understanding of the pathophysiology of stress-induced mental disorders.

Disclosure: No significant relationships.

Keywords: Depression; Stress; Neuroplasticity; Anxiety

EPV1479

Polysomnography Following Traumatic Brain Injury: A Systematic Review and Meta-Analysis

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Introduction: Sleep disturbances are common following traumatic brain injury (TBI) worsening morbidity and other neuropsychiatric symptoms. Post-TBI alterations in sleep architecture require further study.

Objectives: (1) To evaluate polysomnographic measures of sleep architecture in participants with history of TBI compared to controls and as meta-analyses of pooled means. (2) To evaluate effects of timing and severity of TBI on polysomnographic outcomes.

Methods: PRISMA compliant systematic review was conducted of MEDLINE, PsycINFO, EMBASE and Scopus. Inclusion criteria: 1) reporting polysomnography in the context of TBI and 2) operationalizing TBI using clear/formalized criteria. Data were pooled in random-effects meta-analyses with outcomes expressed as mean differences (MD).

Results: In participants with TBI, sleep was comprised of 19.39% REM sleep, 8.13% N1, 51.18% N2, and 17.53% N3, as determined by meta-analyses of single means. Total sleep time was reduced in chronic (>6 months) TBI compared to acute-intermediate TBI (<6 months) ($p=0.01$). Compared to controls, participants with TBI differed with increased N1 sleep (MD=0.64%; 95% CI=0.02,1.25; $p=0.04$), reduced sleep efficiency (MD=-1.65%; 95% CI=-3.18,-0.12; $p=0.03$), and reduced sleep latency on the multiple sleep latency test (MD=-5.90mins; 95% CI=-10.09,-1.72; $p<0.01$). On sub-group analyses, participants with mild TBI differed from controls with reduced total sleep time (MD=-29.22mins, 95% CI=-54.16,-4.27; $p=0.02$). Similarly, participants with acute-intermediate TBI exhibited increased sleep latency compared to controls (MD=8.96mins; 95% CI=4.07,13.85; $p<0.01$) and differed significantly from participants with chronic TBI ($X^2(1,N=608)=6.54$; $p=0.01$).

Conclusions: Sleep architecture is altered following TBI with potential implications regarding functional outcomes and recovery.

These alterations appear to differ based on severity of injury and time since injury.

Disclosure: No significant relationships.

Keywords: Polysomnography; sleep disturbances; sleep; traumatic brain injury

EPV1480

Cannabidiol (CBD) and Insomnia : Literature review

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Introduction: Cannabidiol (CBD) is one of 113 cannabinoids identified in cannabis plants. Considered as a psycho-inactive component, recently, the Court of Justice of the European Union published a ruling in which it establishes that cannabidiol extracted from the cannabis plant should not be considered a drug under the United Nations Single Convention on Narcotic Drugs of 1961. Due to increased publicity on social media of the supposed benefits of this product, in addition to the lack of clear regulations, it is becoming a widely used treatment for sleep disorders.

Objectives: To analyse literature for the effect of CBD in sleep disturbances, emphasizing advantages and disadvantages of its use.

Methods: We carried out a literature review in Pubmed choosing those articles focused on effect of CBD in sleep disturbances.

Results: The review of the effect of CBD on sleep cycle suggest that medium to high doses increased REM sleep latency, and medium-low doses decreased REM sleep latency. No evidence of withdrawal syndrome was found with abrupt discontinuation of short-term treatment with CBD.

Conclusions: Most of the literature revised shows that the data was taken by self-questionnaires to CBD users. Studies suggest that a short use of medium to high doses of CBD may improve insomnia, however, combined use with THC may result in a decrease in slow wave sleep. Longitudinal research should be done in order to understand the clinical impact of CBD on sleep.

Disclosure: No significant relationships.

Keywords: Treatment; CBD; Insomnia; sleep

EPV1481

Sleep characteristics in patients with substance use disorder after detoxification treatment: self-report and actigraphy data

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Introduction: Sleep problems are common in patients with substance use disorders (SUD) and have been related to poor treatment outcomes. Little is known about the sleep characteristics in patients with opioid and alcohol use disorders after detoxification program.

Objectives: To compare sleep quantitative and qualitative characteristics between patients with opioid and alcohol use disorders.

Methods: This is a secondary data analysis of the longitudinal data from the observational study in St. Petersburg, Russia. The sample included 75 patients (22.7% female) who received detoxification treatment for alcohol (n=49) or opioid (n=26) withdrawal. Participants completed the Pittsburgh Sleep Quality Index (PSQI) and underwent daily wrist actigraphy.

Results: Good internal consistency was demonstrated for self-report and actigraphy data ($r=-0.405$, $p<0.01$). Sleep duration and sleep onset latency were not different between alcohol and opioid groups (5.7 vs. 6.1 hours; 74 vs. 65 minutes, respectively) based on self-report data. The majority of the patients (57-100%) had sleep complaints and low quality of sleep after detoxification completion (at baseline). In both groups, the mean PSQI score had a tendency to decrease, representing better sleep quality, over the 1-week following detoxification program completion (from 12 at baseline to 10 at 1-week in alcohol group; from 13 to 12 in opioid group, $p<0.001$).

Conclusions: The findings show that sleep characteristics are similar in patients with different SUD and insomnia symptoms are prevalent after detoxification, suggesting the rationale for sleep assessment before hospital discharge. Despite the positive changes in sleep quality over 1-week abstinence, patients might benefit from the therapeutic sleep interventions.

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Keywords: substance use disorder; Russia; sleep; actigraphy

EPV1482

Improving sleep in a population at high risk of trauma: A pilot study examining self-reported sleep, psychological symptomology and actigraphy measured night-time sleep

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Introduction: Sleep disturbances (SDs), such as insomnia or regular nightmares, are associated with multiple mental health disorders, most notably PTSD, where SDs are reported in up to 92% of cases. Examining the effect of changing sleep on psychological symptomology is essential to develop the evidence base on the contribution of sleep to mental resilience.

Objectives: To examine the effect a short skills-based sleep intervention on psychological symptomology and actigraphy measured sleep.

Methods: A 4-session sleep skills training programme was used to treat active SDs in participants likely to have experienced occupation-associated trauma, namely military and first responders.