and REM (-0.002, 0.001) [unstandardised β/SE], p=0.008), and increased pNN50% during wake (-0.24, 0.08), p=0.005) [unstandardised β/SE] suggesting MAS efficacy relates to these improvements.
Conclusion: We found evidence of reduced sympathetic and increased parasympathetic modulation, following short-term MAS therapy. This suggests MAS therapy has potential to improve cardiac autonomic function and hence reduce cardiovascular risk.

P152

POOR SLEEP QUALITY, INDIVIDUAL EXPERIENCES AND INCREASED RISK OF SELF-HARM – A MULTI-METHOD STUDY

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Introduction: The COVID-19 pandemic has caused significant psychological distress to many people across the globe. Poor sleep quality may be linked to poor mental health and increased suicide ideation. To contextualise the risk factors associated with self-harm or suicidal ideation during the COVID-19 pandemic, this cross-sectional study examined links between poor sleep quality, individual experiences and self-harm risk.
Methods: N=1544 (Mage=44.3y) from 63 countries completed an online survey in March-April 2020. Participants reported their pandemic experiences as free text responses, which were examined quantitatively for frequent word usage using Linguist Inquiry and Word Count software. Pittsburgh Sleep Quality Index assessed poor sleep quality (cut-off score >8). Item-9 of Patient Health Questionnaire-9 measured the risk of self-harm.
Results: Individuals with poor sleep quality (45%) used more negative emotional tone and had greater use of anxiety or money-related words in their comments than good sleepers (all ps<.05). Additionally, 19% of respondents (n=295) reported thoughts of self-harm at least several days a week (3.4% nearly every day). Logistic regression indicated that younger individuals, males, and those feeling isolated or less resilient had 1.2 to 1.5 times greater risk of self-harm (all ps<.001). Poor sleep quality was associated with a two-fold increased risk of self-harm (95%CI=1.5–2.7, p<.0001) after controlling for demographic variables.
Discussion: Poor sleep quality is linked to negative emotionality and increased risk of self-harm during the COVID-19 pandemic. Sleep is a modifiable factor; therefore interventions aimed at addressing sleep disturbances may improve resilience and reduce the risk of self-harm in vulnerable individuals.

P153

SLEEP TIMING AND CHRONOTYPE IN PERINATAL PERIODS: LONGITUDINAL CHANGES AND ASSOCIATIONS WITH WELLBEING FROM PREGNANCY TO 2 YEARS POSTPARTUM

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Introduction: Significant changes to sleep occur during perinatal periods. Existing research focuses on sleep duration and quality, but not sleep timing or chronotype. This study investigated change trajectories of sleep timing and chronotype from late pregnancy to two years postpartum, and examined associations between chronotype and insomnia, sleep-related impairment, and mood at seven different perinatal time-points.
Methods: Data were from a 2-arm randomised controlled trial testing behavioural sleep and diet interventions. A community sample of nulliparous females without severe sleep/mental health conditions participated. Participants self-reported bedtime, rise-time, chronotype (short Morningness-Eveningness Questionnaire), Insomnia Severity Index, and PROMIS Depression, Anxiety, and Sleep-Related Impairment over seven time points: gestation weeks 30 and 35, and postpartum months 1.5, 3, 6, 12 and 24.
Results: 163 participants (mean age 33.4±3.4 years) took part. Mixed effects models adjusting for age and group allocation showed that both bed- and rise-times became progressively earlier by approximately 20–30 minutes over time (p<.001); chronotype shifted progressively towards more morningness (p<.01). After adjusting for covariates (sleep duration and efficiency, mental health history, social support, age, group allocation), greater morningness was significantly associated with lower symptoms of insomnia and sleep-related impairment over time (p-values<.001); at each time-point, associations between chronotype and symptoms of depression and anxiety were non-significant (p-values>0.65).
Conclusions: Sleep timing and chronotype became progressively earlier over the first two postpartum years. Greater morningness was associated with less sleep complaints and sleep-related daytime impairment during the postpartum period. The mechanisms of these findings may be investigated through further research.

P154

UPPER AIRWAY SENSATION IN OBSTRUCTIVE SLEEP APNEA - A SYSTEMATIC REVIEW AND META-ANALYSIS TO INFORM PATHOGENESIS, TREATMENT AND FUTURE RESEARCH.

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Introduction: Upper airway sensory impairment may contribute to obstructive sleep apnea (OSA) for certain patients. However, the type of sensory impairment and its role in OSA pathogenesis remain unclear. This study aimed to: (1) evaluate methods of upper airway sensory testing in the OSA literature, (2) compare upper airway sensation in people with and without OSA and (3) investigate the relationship between OSA severity and upper airway sensory impairment.
Methods: Electronic databases were searched up to February 2020 for studies reporting methods of upper airway sensory testing in people with OSA (n=3,819). From the selected studies (n=38), information on the type of sensation, testing methods, validity and reliability were extracted. Meta-analyses were performed on case-controlled studies and studies reporting correlations between upper airway sensation and OSA severity.
Results: Seven types of upper airway sensation were reported: olfactory, gustatory, chemical, tactile, vibratory, thermal and neurosensation. Methods of upper airway sensory testing varied. No tests were validated or assessed for reliability in OSA populations. People with OSA had impaired sensation on airflow (p<0.001), chemical (p<0.001), gustatory (p=0.01), olfactory (p=0.04) and tactile (p<0.001) tests. Upper airway sensory impairment correlated with OSA severity (p<0.001).