emergency. During the pandemic, first- or second-line health workers reporting significant levels of emotional exhaustion are on average 23,89 ($\pm$4.22), those reporting feelings of depersonalization are on average 7.58 ($\pm$2.73), while those who report a good level of professional efficiency are on average 21.12 ($\pm$3.48). Predictors of increased levels of depersonalization are being a first-line worker and the presence of traumatic event avoidance symptoms. Furthermore, levels of professional fulfillment are negatively affected by age, the presence of intrusive symptoms, the presence of sleep disorders, and being a frontline worker.

Conclusions: The impact of the COVID-19 pandemic on the mental health of healthcare professionals involved in the first and/or second line COVID hospitals is indisputable. Although burnout syndrome is not a new clinical condition, the COVID-19 pandemic may further worsen the magnitude of the problem. However, our results could be a starting point to promote a change in the way we perceive the mental health of healthcare professionals.

Disclosure of Interest: None Declared

Depressive Disorders 04

EPP0593

Regionally decreased cortical gyrification in patients with major depressive disorder

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Introduction: Early neurodevelopmental deviations, such as abnormal cortical folding patterns, are a candidate biomarker for major depressive disorder (MDD). Previous studies on patterns of abnormal cortical gyrification in MDD have provided valuable insights; however, the findings on cortical folding are controversial.

Objectives: We aimed to investigate the association of MDD with the local gyrification index (LGI) in each cortical region at the whole-brain level and the association of the LGI with clinical characteristics of MDD, including recurrence, remission status, illness duration, severity of depression, and medication status of patients with MDD.

Methods: We obtained T1-weighted images of 234 patients with MDD and 215 healthy controls (HCs). LGI values were automatically calculated using the FreeSurfer software according to the Desikan–Killiany atlas. LGI values from 66 cortical regions in the bilateral hemispheres were analyzed. We compared the LGI values between the MDD and HC groups using the analysis of covariance, including patients' age, sex, and years of education as covariates. The association between clinical characteristics and LGI values was investigated in the MDD group.

Results: Compared with HCs, patients with MDD showed significantly decreased LGI values in the cortical regions, including the bilateral ventrolateral and dorsolateral prefrontal cortices, medial and lateral orbitofrontal cortices, insula, right rostral anterior cingulate cortex, and several temporal and parietal regions, with the

highest effect size in the left pars triangularis (Cohen's $f = 0.361$; P $= 1.78 \times 10^{-13}$). As for the association of clinical characteristics with LGIs within the MDD group, recurrence and longer illness duration of MDD were associated with increased gyrification in several occipital and temporal regions, which showed no significant difference in LGIs between MDD and HC groups.

Conclusions: Considering that the aforementioned cortical regions are involved in emotion regulation, abnormal cortical folding patterns in such regions may be associated with the dysfunction of emotion regulation-related neural circuits, which may lead to MDD. These findings suggest that LGI may be a relatively stable neuroimaging marker associated with the trait of MDD predisposition.

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EPP0594

The influence of physical activity during sleep deprivation on mood and reaction speed to visual and auditory stimuli

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Introduction: Sleep deprivation (SD) is being examined in the treatment of depression and other affective disorders for years. However, studies' outcomes remain ambiguous, with varying levels of clinical improvement and its ephemeral character. Thus, it is necessary to find new factors accounting for the variability of results to develop new therapeutic protocols.

Objectives: The study aimed to assess the influence of physical activity on mood and reaction speed following SD.

Methods: The study group consisted of 71 participants. SD lasted about 24 hours, beginning in the morning hours of the SD day to the morning hours of the following day. Physical activity (PA) was controlled using actigraphy (actigraph GENEActive Original, ActivInsights Ltd.) given to each participant. Participants underwent the reaction speed test (Response Time Test Apparatus, AT Smart Systems, Poland) and filled out a questionnaire assessing depression symptoms- Beck Depression Inventory (BDI), in the evening of the SD day, and the following morning. Based on the percentage of sedentary time (gravity-subtracted sum of vector magnitudes<386, DOI 10.1111/sms.13488) participants were classified as inactive ($\geq$70% of SD duration spent sedentary, n= 43) or active (n= 28).

Results: There were no significant differences between the active and the inactive participants regarding pre/post SD BDI score, reaction speed, and demographic data (age, sex, BMI) (all p>0.05). The inactive group had a significantly lower BDI score following SD in comparison with their baseline parameters (5, IQR 1-12 vs. 3, IQR 0-12, p=0.024) than the active group (3, IQR 1-6 vs. 3, IQR 0-7, p=0.408). Reaction speed after SD was impaired in both active (0.216, IQR 0.206-0.226 vs. 0.231, IQR 0.222-0.46, p<0.001) and inactive group (0.224, IQR 0.216-0.235 vs. 0.238, IQR 0.220-0.251, p<0.001). However, the difference between