

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

K.-M. Han<sup>1\*</sup>, Y. Kang<sup>1</sup> and B.-J. Ham<sup>2</sup>

<sup>1</sup>Department of Psychiatry, Korea University Anam Hospital, Korea University College of Medicine and <sup>2</sup>Department of Biomedical Sciences, Korea University College of Medicine, Seoul, Korea, Republic Of

\*Corresponding author.

doi: 10.1192/j.eurpsy.2023.892

**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.

**Disclosure of Interest:** None Declared

### EPP0594

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

M. Sochal<sup>1\*</sup>, M. Ditmer<sup>1</sup>, S. Turkiewicz<sup>1</sup>, F. Karuga<sup>1</sup>, D. Strzelecki<sup>2</sup> and A. Gabryelska<sup>1</sup>

<sup>1</sup>Department of Sleep Medicine and Metabolic Disorders and <sup>2</sup>Department of Affective and Psychotic Disorders, Medical University of Lodz, Poland, Lodz, Poland

\*Corresponding author.

doi: 10.1192/j.eurpsy.2023.893

**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, Acti-Insights 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

pre/post SD response time was slightly higher in the active individuals (0.015, IQR 0.011-0.028 vs. 0.012, IQR 0.003-0.022,  $p=0.047$ ).

**Conclusions:** This study shows, that a sedentary behavior during SD might improve mood and slightly less impair the response time to auditory or visual stimuli than a higher activity level. Thus, PA could be an important modulator of clinical outcomes observed in individuals with affective disorders subjected to SD. PA should be accounted for in the SD protocols designed for future studies.

**Disclosure of Interest:** None Declared

## EPP0595

### Telehealth treatment of patients with major depressive disorder during the COVID-19 pandemic: Comparative safety, patient satisfaction, and effectiveness to prepandemic in-person treatment

M. Zimmerman

Brown University, Providence, United States  
doi: 10.1192/j.eurpsy.2023.894

**Introduction:** The COVID-19 pandemic impelled a transition from in-person to telehealth psychiatric treatment. The COVID-19 pandemic has been depressogenic. Major disruptions in lifestyle due to social isolation, job loss, financial strain, and deaths of neighbors, family and friends are potential contributors to the increased levels of depression due to the pandemic. As one of the core elements of psychotherapeutic approaches towards treating depression is behavioral activation and increased social contact the psychosocial limitations imposed by COVID-19 might make it more difficult to treat depression during the pandemic.

**Objectives:** There are no studies of partial hospital telehealth treatment for major depressive disorder (MDD). In the present report from the Rhode Island Methods to Improve Diagnostic Assessment and Services (MIDAS) project, we compared the effectiveness of partial hospital care of patients with MDD treated virtually versus in-person.

**Methods:** Outcome was compared in 294 patients who were treated virtually from May, 2020 to December, 2021 to 542 patients who were treated in the in-person partial program in the 2 years prior to the pandemic. Patients completed self-administered measures of patient satisfaction, symptoms, coping ability, functioning, and general well-being.

**Results:** In both the in-person and telehealth groups patients with MDD were highly satisfied with treatment and reported a significant reduction in symptoms from admission to discharge. Both groups also reported a significant improvement in positive mental health, general well-being, coping ability, and functioning. A large effect size of treatment was found in both treatment groups. Contrary to our hypothesis, the small differences in outcome favored the telehealth-treated patients. The length of stay and the likelihood of staying in treatment until completion were significantly greater in the virtually treated patients.

**Conclusions:** In an intensive acute care setting, delivering treatment to patients with MDD using a virtual, telehealth platform was as effective as treating patients in-person.

**Disclosure of Interest:** None Declared

## EPP0596

### 50% Improvement: Should Treatment Response Go Beyond Symptom Improvement When Evaluating the Treatment of Depression?

M. Zimmerman

Brown University, Providence, United States  
doi: 10.1192/j.eurpsy.2023.895

**Introduction:** The emphasis on symptom resolution in depression treatment research is at variance with the recommendations of official treatment guidelines and the results of surveys of depressed patients' views of the most important treatment goals.

**Objectives:** In the present study, we examined the interrelationship between response rates on various outcome domains and whether response on each domain was associated with patients' global rating of improvement (PGI) reported upon treatment completion. We also examined whether the PGI was associated with the number of domains on which the patients had achieved responder status and which domains were independent predictors of PGI response.

**Methods:** Eight hundred and forty-four patients with major depressive disorder completed the Remission from Depression Questionnaire (RDQ), a self-report measure that assesses 6 constructs considered by patients to be relevant to assessing treatment outcome. The patients completed the RDQ at admission and discharge from the treatment program. For each domain, response was defined as a 50% or greater reduction in scores. At discharge, the patients rated the PGI.

**Results:** The patients significantly improved from admission to discharge on each of the 6 domains assessed on the RDQ. The responders on each domain reported significantly greater improvement on the global rating of improvement at discharge. Responder status in one domain mostly co-occurred with responder status in another domain. In a logistic regression analysis, responses on all domains, except nondepressive symptoms, were independently associated with PGI response.

**Conclusions:** The results of the present study are consistent with multiple surveys which have suggested that focusing on symptom reduction is too narrow of an approach when measuring outcome in the treatment of depression. Expanding the assessment of outcome beyond symptoms and viewing nonsymptomatic outcome domains as critical composites of primary endpoints would be more consistent with a patient-centered approach towards the treatment of depression.

**Disclosure of Interest:** None Declared

## EPP0597

### Social connection and depression: an umbrella review of meta-analyses assessing the magnitude of risk and protection

M. Pettorruso<sup>1\*</sup>, R. Collevocchio<sup>1</sup>, F. Zoratto<sup>2</sup>, B. Collacchi<sup>2</sup>, M. Boffa<sup>2</sup>, M. Santorelli<sup>3</sup>, M. Clerici<sup>3</sup>, G. Martinotti<sup>1</sup> and M. Borgi<sup>2</sup>

<sup>1</sup>Department of Neuroscience, Imaging and Clinical Sciences, "G. d'Annunzio" University of Chieti-Pescara, Chieti; <sup>2</sup>Center for Behavioural Science and Mental Health, Istituto Superiore di Sanità, Rome and <sup>3</sup>School of Medicine and Surgery, University of Milano-Bicocca, Milan, Italy

\*Corresponding author.

doi: 10.1192/j.eurpsy.2023.896