

impact and significant psychosocial impact. Besides, this pandemic has had a profound negative effect on the mental health of people worldwide, particularly among those who are faced with combating the virus.

**Objectives:** The aim of this research was to examine the impact of the COVID-19 pandemic on healthcare workers' mental health (HCWs), as they are on the front line of the pandemic.

**Methods:** An internet-based questionnaire was created including the following scales: (1) Posttraumatic Stress Disorder Checklist (PCL-5), (2) Secondary Traumatic Stress Scale (STSS) (3) Quality of Professional Life (ProQOL) (4) Post-Traumatic Growth Inventory, (PTGI), (5) Brief Resilience Scale (BRS), (6) Brief Orientation to Problems Experienced Inventory (Brief Cope), (7) Self-Compassion Scale (SCS-SF). It was distributed to 120 Greek health professionals, including nurses, doctors, midwives and physiotherapists.

**Results:** Most of the participants were female with an average age of 46 years. HCWs had low levels of both primary and secondary traumatic stress. They presented post-traumatic growth in the dimension of relationship with others. They used predominantly the coping strategies of positive reframing, acceptance of the situation, venting, and instrumental support.

Females had statistically significant higher levels of post-traumatic growth, better quality of life, and used more positive coping strategies compared to males. Humor and acceptance were coping strategies used mainly by physicians. Nurses and midwives had worse quality of professional life potentially due to increased workload. HCWs with more functional ways of coping were more resilient and seemed to have better quality of life, such as higher compassion, satisfaction, lower burnout, and lower post-traumatic stress.

**Conclusions:** The experience of the COVID-19 pandemic highlights the need to implement some strategies to protect health care workers' mental health and to take extensive prevention measures in highly stressful situations. Further research is needed to clarify the long-term negative and positive psychological effects of the pandemic on healthcare personnel's mental health.

**Disclosure of Interest:** None Declared

## EPP0590

### Psychological Consequences of Covid on Health Care Workers and their Coping strategies

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**Introduction:** Research findings show that during the COVID-19 pandemic, healthcare workers (HCWs) have been subject to increased workload while also exposed to many psychosocial stressors.

**Objectives:** The aim of this study was to investigate Covid's impact on healthcare professionals' mental health and their coping strategies

**Methods:** The study population consisted of 144 health professionals from health care facilities in Patras. An internet based questionnaire was distributed, which included demographic survey

questions and the following three scales: (1) The Psychological Consequences Questionnaire (PCQ) scale, (2) The Kessler Psychological Distress scale (k6) and (3) Toulouse's scale for coping strategies (E.T.C.).

**Results:** 144 health care workers participated in the survey, who were basically women (72.2%) and nurses (60%) In terms of psychological consequences, participants felt pressured, stressed (3.12), and sad/depressed (2.78). The most frequently used coping strategies were acceptance (3.44), active focus (3.38), cognitive focus (3.31), cognitive control and planning (3.30), emotional control (3.17), social informational support (3.16) and cooperation (3.15). In contrast, the strategies used to a lesser extent are substance addiction (1.91), emotional focus (2.13), denial (2.27) and alexithymia (2.49). Generally, positive strategies (3.11) were chosen to a greater extent than negative ones (2.38).

**Conclusions:** It is very important for hospital administrations to design specific psychological support programs and encourage health professionals to participate in them in order to manage their fear, anxiety and stress experienced.

**Disclosure of Interest:** None Declared

## EPP0591

### The impact of COVID-19 pandemic on the healthcare workers mental health

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**Introduction:** The COVID-19 pandemic represents an unprecedented in health events that has had a negative impact on the mental health of the population in general as well as on specific categories, including patients with mental and physical disorders, and healthcare professionals. In particular, COVID-19 pandemic has produced extraordinary stress in healthcare workers, especially frontline physicians, nurses and healthcare professionals.

**Objectives:** In the present study we aimed to evaluate levels of burnout, a clinical condition characterized by emotional, psychological and physical exhaustion, in a sample of health workers from the Campania region, Italy, during the first phase of the COVID-19 pandemic. Secondary objectives of the study include the assessment, in the same group, of levels of anxiety-depressive symptoms, insomnia, suicidal ideation and symptoms on the post-traumatic spectrum.

**Methods:** An online survey was released through the official website of the University of Campania "L. Vanvitelli" and social media. The Maslach Burnout Inventory was used to assess burnout in the healthcare professionals; Depression Anxiety Stress Scale-21 Short Version to measure levels of anxiety, depression and stress; the Insomnia Severity Index was used to identify insomnia-related symptoms; the Suicidal Ideation Attributes Scale was adopted to select individuals based on the presence of suicidal thoughts while the Impact of Event Scale-Revised was administered to evaluate trauma-related dimensions.

**Results:** A total of 389 health workers was recruited. They were predominantly female, with an average age of 39.06 ( $\pm$  11.85) years, working mainly in the second line hospitals during the COVID-19

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.

**Disclosure of Interest:** None Declared

### 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, 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