

All patients underwent pre-treatment multichannel background EEG recordings in a state of quiet wakefulness with eyes closed and analysis of the absolute EEG spectral power (SP) in 8 narrow frequency sub-bands.

As well, markers of neuroplasticity — the levels of autoantibodies to the S100b protein (AAT-S100b) and to the myelin basic protein (AAT-MBP) were measured in each patient's blood plasma using the laboratory technology "Neuro-immuno-test".

The EEG and immunological parameters of the "COVID" group were compared with similar data of 40 depressive patients who were treated in 2018-2019, that is, they did not have COVID-19 ("pre-COVID" group), but matched by sex, age, syndrome structure, as well as the pre-treatment severity of depression (according to the HDRS-17 scale) to patients of the "COVID" group.

Statistical analysis of the data obtained was carried out by the correlation analysis method of the IBM SPSS Statistics, v.22 software package.

**Results:** In the "COVID" group, the AAT-S100b level values positively correlated with the EEG delta sub-band (2-4 Hz) SP values in T3, T4, P4, and O1 leads. The values of the AAT-MBP level correlated with the SP values of delta (2-4 Hz) and theta1 (4-6 Hz) EEG sub-bands in C3, T4, P3, P4, O1, and O2 leads. In the "pre-COVID" group, the values of the AAT-S100b level correlated positively with the SP values of not slow-wave, but alpha2 (9-11 Hz) and alpha3 (11-13 Hz) EEG activity in T3, P3, O1, and O2 leads.

**Conclusions:** Positive correlations of the AAT-S100b level with alpha2 and alpha3 SP values indicate that in the "before COVID" group, the AAT-S100b level reflects rather the reparative processes of neuroplasticity. On the contrary, in the "COVID" group, positive correlations of the AAT-S100b and of the demyelination marker AAT-MBP levels with the SP values of slow-wave (delta and theta1) EEG frequency components, reflecting a reduced brain functional state, indicate that elevated levels of AAT-S100b and AAT-MBP in this group are markers of nerve tissue damage caused by coronavirus infection.

The study supported by the Russian Science Foundation (grant No. 21-18-00129).

**Disclosure of Interest:** None Declared

## EPP0428

### EEG Correlates of suicidal intentions in depressive patients who survived and have not been ill with COVID-19

A. F. Iznak\*, E. V. Iznak and E. V. Damyanovich

Laboratory of Neurophysiology, Mental Health Research Centre, Moscow, Russian Federation

\*Corresponding author.

doi: 10.1192/j.eurpsy.2023.739

**Introduction:** The COVID-19 pandemic has caused an increase in suicidal intentions and attempts. One of the ways to prevent suicides is the timely detection of suicidal intentions. In this regard, it seems relevant to search for objective markers of suicidal intentions.

**Objectives:** The aim of the study is to identify EEG correlates of suicidal intentions in depressive patients who survived and not have been ill with COVID-19.

**Methods:** The study included 30 female patients aged 16-25 years with depressive disorders (F31.3-4, F21.3-4 + F34.0, according to ICD-10), who had previously a mild or asymptomatic coronavirus

infection (group "COVID"), and 40 depressive patients, matched by sex, age, syndrome and the pre-treatment severity of depression (according to the total score of the Hamilton HDRS-17 scale), but not sick with COVID-19 ("non-COVID" group). The severity of suicidal intentions was quantified by the number of points of item 3 of the HDRS-17 scale. All patients underwent pre-treatment registration of the background EEG in a state of quiet wakefulness with eyes closed in 16 monopolar leads: F7, F3, F4, F8, T3, C3, Cz, C4, T4, T5, P3, Pz, P4, T6, O1 and O2. The analysis of the absolute EEG spectral power (SP) was carried out in 8 narrow frequency sub-bands. Statistical processing of the data obtained was carried out using the methods of descriptive statistics, comparison of means and correlation analysis of the IBM SPSS Statistics, v.22 software package.

**Results:** In the "COVID" group, the mean number of points of item 3 of the HDRS-17 scale was slightly higher than in the "non-COVID" group ( $2.1 \pm 1.5$  and  $1.8 \pm 1.6$ , respectively), but these differences did not reach the level of statistical significance ( $p > 0.05$ ). However, the structure of correlations between the values of this indicator of the severity of suicidal intentions and EEG parameters in the two groups turned out to be different. In the "COVID" group, the largest number of significantly ( $p < 0.05$ ) positive correlation coefficients was noted between the number of points of item 3 of the HDRS-17 scale and the SP values of slow-wave EEG components, e.g. theta2 sub-band (6-8 Hz) in leads F7, F3, F4, F8, T4, C3, C4, P3 and P4, as well as the delta sub-band (2-4 Hz) in leads F7 and P4. In the "non-COVID" group, the number of points of item 3 of the HDRS-17 scale positively correlated with the SP values of the alpha2 sub-band (9-11 Hz) in leads F7, F8, F4, C3, C4, T4, P4 and O2, as well as with SP values of the delta sub-band (2-4 Hz) in leads F7, F3 and C3.

**Conclusions:** In depressive patients who underwent COVID-19, the severity of suicidal intentions is associated with EEG signs of a more reduced functional state of the cerebral cortex, including the anterior regions, than in patients who did not have coronavirus infection.

The study supported by the RSF grant No. 21-18-00129.

**Disclosure of Interest:** None Declared

## EPP0430

### Self-Compassion and General Well-Being among Self-Quarantined Residents: Mediation by Certainty in Control and Moderation by Positive Coping

A. Li<sup>1\*</sup> and S. Wang<sup>2</sup>

<sup>1</sup>College of Teacher Education, Nanjing University of Information Science & Technology and <sup>2</sup>Department of Mental Health Education, Nanjing Audit University, Nanjing, China

\*Corresponding author.

doi: 10.1192/j.eurpsy.2023.740

**Introduction:** The outbreak of the Coronavirus Disease 2019 (COVID-19) has caused adverse outcomes on tens of millions of people worldwide, both physically and psychologically. As a public health response, quarantine has been recruited as a national measure in COVID-19, which subjects people who are suspected and confirmed cases to strictly isolation. Unfortunately, people may suffer from various adverse effects under self-quarantine at home. Thus, it is crucial to explore how to improve the psychological

outcomes of self-quarantined residents to provide future intervention targets.

**Objectives:** During the COVID-19 pandemic, mandatory quarantine may threaten people's psychological health and well-being. This study aimed to test the relationship between self-compassion and general well-being among self-quarantined residents and to examine the mediating role of certainty in control (i.e., a component of psychological security) in the relation. It further explored the moderated role of positive coping in the correlation between self-compassion and certainty in control.

**Methods:** Participants were 312 self-quarantined residents (120 men, 192 women) from a community in Liaoning Province, China, who completed online questionnaires of the Self-Compassion Scale (SCS), Security Questionnaire (SQ), Simplified Coping Style Questionnaire (SCSQ), and General Well-Being Scale (GWBS). A moderated mediation model was conducted to test the hypotheses.

**Results:** The moderated mediation model suggested that self-compassion was positively associated with well-being. Certainty in control partially mediated the relationship between self-compassion and general well-being. Moreover, positive coping moderated the relationship between self-compassion and certainty in control. The link between self-compassion and certainty in control was stronger among low-level positive coping people than high-level ones.

**Conclusions:** Findings reveal that increased psychological security (e.g., certainty in control) by self-compassion contributes to general well-being during the self-quarantined period. People with low positive coping may benefit more from self-compassion. This study thus broadens the understanding of the mechanism underlying self-compassion on positive functioning and well-being. Psychological interventions should focus on self-compassion to enhance the general well-being of quarantined people in the pandemic.

**Disclosure of Interest:** None Declared

## EPP0431

### The impact of prenatal maternal mental health during the COVID-19 pandemic on birth outcomes: A cohort study within the CONCEPTION cohort

A. Berard<sup>1,2,3\*</sup>, V. Tchuente<sup>4</sup>, N. Pages<sup>3,5</sup>, J. Gorgui<sup>1,5</sup>, T. Fareh<sup>5,6</sup>, S. King<sup>7</sup> and G. Elgbeili<sup>7</sup>

<sup>1</sup>Faculty of Pharmacy, University of Montreal; <sup>2</sup>Research Center, CHU Sainte-Justine, Montreal, Canada; <sup>3</sup>Faculty of Medicine, Université Claude Bernard Lyon 1, Lyon, France; <sup>4</sup>Research Center, CHU Sainte-Justine; <sup>5</sup>Research Center, CHU Sainte-Justine, Montréal; <sup>6</sup>Faculty of Medicine, Université Claude Bernard Lyon 1, Lyon and <sup>7</sup>Faculty of Medicine, McGill University, Montreal, Canada

\*Corresponding author.

doi: 10.1192/j.eurpsy.2023.741

**Introduction:** External natural events, such as the COVID-19 pandemic, can contribute to increased stress, depression and anxiety in pregnant persons. Thus far, studies on the impact of maternal mental health during the pandemic on perinatal outcomes have been conflicting.

**Objectives:** Assess the impact of prenatal mental health during the COVID-19 pandemic on preterm birth (PTB) and low birthweight (LBW).

**Methods:** Pregnant individuals, >18 years were recruited in Canada, their data were collected through a web-based questionnaire. Our analysis includes data on individuals recruited between 06/2020 and 08/2021, who completed questionnaires at baseline and 2-month post-partum. Data on maternal sociodemographic, comorbidities, medication, mental health measures (Edinburgh Perinatal Depression Scale, General Anxiety Disorder-7, stress), hardship (CONCEPTION study Assessment of Stress from COVID-19 -150 points), gestational age at delivery and birth weight were self-reported. PTB defined as delivery before 37 weeks of gestation. LBW defined as birth weight less than 2,500 grams.

**Results:** A total of 1,265 and 1,233 participants were included in the analyses of PTB and LBW, respectively. After adjusting for potential confounders, we found no differences between prenatal mental health and PTB ([depression [adjusted RR [aRR] 1.01, CI 95% 0.91 to 1.11], anxiety [aRR 1.04, CI 95% 0.93 to 1.17], stress [aRR 0.88, CI 95% 0.71 to 1.10], hardship [aRR 1.00, CI 95% 0.96 to 1.04]). However, we found that the risk of PTB was increased with ethnicity/race (aRR 3.85, CI 95% 1.35 to 11.00), obstetrician/gynecologist follow-up (aRR 2.77, CI 95% 1.12 to 6.83). We didn't find any significant association between prenatal mental health and LBW. However, annual household income, previous delivery were associated with a decreased risk of LBW (aRR 0.15, CI 95% 0.05 to 0.49; aRR 0.39, CI 95% 0.20 to 0.77, respectively).

**Conclusions:** Conclusion: No association was found between prenatal mental health during the COVID-19 pandemic and the risk of PTB or LBW. However, it is imperative to continue the follow-up of mothers and their offspring in order to detect early any long-term health problems.

**Disclosure of Interest:** None Declared

## EPP0432

### Anxiety and depressive disorders in patients with Covid-19

A. Stolyarova\*, N. Tyvina, D. Golovkina, V. Vysokova, J. Zhao, K. Zhang and M. Kinkulkina

psychiatry and narcology, Sechenov University, Moscow, Russian Federation

\*Corresponding author.

doi: 10.1192/j.eurpsy.2023.742

**Introduction:** Coronavirus infection has shown a significant impact not only on physical health but also on mental health. Among the long-term consequences in the post-COVID period, depressive and anxiety disorders are well observed. A potential mechanism for developing mental disorders after undergoing SARS-CoV-2 is a neuroinflammatory process in the central nervous system.

**Objectives:** This study aimed to discover the features of anxiety and depressive disorders in people who suffered from COVID-19.

**Methods:** The study was conducted from October 2021 to September 2022 in outpatient and inpatient conditions of the S. S. Korsakov Psychiatric Clinic of Sechenov University. 58 patients (17 (29.3%) men and 41 (70.7%) women) with a diagnosis of F32, F34.1, F41-F48.0, or F06.3-06.4 according to ICD-10 who underwent COVID-19, mainly of mild and moderate severity (46 (79.3%) and (8 (13.8%) consequently), were examined clinically.