

**Results:** Regarding the PCL-S: for civilians and first responders respectively, the overall AUC was 0.947 and 0.899, and the optimal threshold were 38.5 and 39.5. Regarding the HADS-D: for civilians and first responders respectively, the overall AUC was 0.908 and 0.617 and the optimal thresholds were 7.5 and 1.5. For the HADS-A for civilians and first responders respectively, the overall AUC was 0.823 and 0.717, the optimal threshold were 9.5 and 6.5.

**Conclusions:** In the context of a terrorist attack, compared to the MINI, our study underlined satisfactory performance of the PCL-S and the HADS-D in screening for PTSD and depression respectively, while the screening of anxiety using the HADS-A was unsatisfactory.

**Disclosure:** No significant relationships.

**Keywords:** Mental health disorders; self-report questionnaires; Terrorist attack

## EPP0410

### A growing heart: a literary review on clozapine-induced Myocarditis

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**Introduction:** Clozapine, a unique antipsychotics, is well known for its adverse effects. Myocarditis is a rare but life-threatening complication, however not monitored at a global scale.

**Objectives:** This work aims to review the literature on clozapine-induced myocarditis.

**Methods:** Pubmed and Google Scholar search using Mesh terms clozapine, myocarditis, clozapine-induced myocarditis.

**Results:** Clozapine-induced Myocarditis (CIM) is potentially fatal, with mortality rates environ 21%. According to the World Health Organization Monitoring Program, notification rate is 0,93%, nonetheless incidence found in literature varies dramatically. Highest rates are reported in Australia, where this relationship was first established and a complete monitoring protocol is compulsory in all patients starting clozapine, which causes some authors to defend this condition is generally undernotified. Underlying mechanisms are not fully understood, but an imunomediaded hypersensitive reaction occurring in the first 3-4 weeks after treatment is suggested. CIM is rare after 6 weeks. Risk factors include age, cardiac disease, initial high dose, rapid titration and simultaneous valproate or other antipsychotics use. The most common symptoms, fever, tachycardia, dyspnea and malaise, are non-specific and can be indistinguishable from other clozapine benign adverse effects. Analytically, C-reactive protein and Troponine elevation are the most specific diagnostic markers, therefore the most suitable for monitoring. Prompt cardiological observation for further evaluation should be sought whenever CIM is suspected.

**Conclusions:** Diagnosis of CIM can be challenging. Systematic monitoring is not consensual but may increase detection, prevent severe outcomes and help clinicians decide whether to keep or

suspend therapy. Clozapine is beneficial and shouldn't be avoided or unjustifiably discontinued.

**Disclosure:** No significant relationships.

**Keywords:** clozapine-induced myocarditis; clozapine; myocarditis

## COVID-19 and Related Topics 05

### EPP0411

#### Mrna vaccination under clozapine treatment

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**Introduction:** Common side effects are agranulocytosis and myocardiopathy. There are reports of myocardite related to m-rna vaccine for covid-19 (Pfizer-Bionteck), while the interactions with clozapine has not been yet studied.

**Objectives:** The object of the study is to explore the safety of COVID-19 vaccination at patients treated with clozapine.

**Methods:** We report a group of 27 patients from the psychiatric rehabilitation unit of the General Hospital of Corfu who were treated with clozapine and another group of 27 patients on different antipsychotic. Levels of clozapine were measured before the 1st vaccination and one month after the individuals were fully vaccinated, as well their COVID antibodies. For myocarditis detection we used CRP >1mg/dl and quadruplication of the troponin of reference.

**Results:** No significant difference has been observed among the 2 groups in relation to antibody production, No difference has been detected between clozapine and nor-clozapine serum levels before and after vaccination. While there was no case of myocarditis or vein embolism noticed.

**Conclusions:** It seems that patients treated with clozapine develop immune response to COVID-19 as individuals in any other antipsychotic. No major side effects were reported at the two groups leading as to the conclusion that treatment with clozapine could not be an obstacle for COVID-19 vaccination. Thus to the small number of patients in this study further research is needed.

**Disclosure:** No significant relationships.

**Keywords:** clozapine; covid

### EPP0412

#### Emotional impact on Spanish health professional because of the COVID19 crisis

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**Introduction:** The COVID-19 pandemic has positioned health professionals around the world in an unprecedented situation, having to work in extreme conditions.

The reactions of healthcare personnel that concern us most are the negative psychological effects of the pandemic, such as exhaustion, moral injury, acute stress reactions, anxiety, depression or post-traumatic stress disorder.

**Objectives:** To assess the impact of the COVID19 crisis on mental health of Spanish health professionals during the start of the pandemic.

**Methods:** A descriptive, cross-sectional study is carried out, in which the population sample to be studied was the health professionals who responded to the online questionnaire designed to assess the emotional impact caused by the COVID-19 health crisis. The questionnaire collects sociodemographic and labor data, which correspond to the independent variables of the study. The dependent variables correspond to the two scales used in the questionnaire (SAS and SASRQ scales)

**Results:** The population sample was 473 people.

Analyzing the results of the SAS scale, 26.5% of the sample had anxiety symptoms in a normal range, 44.3% had mild-moderate anxiety levels, 24.4% marked-severe anxiety and 4, 9% had extreme anxiety levels.

The SARQ questionnaire assesses the presence of an acute stress disorder. In our study, 31.6% of those surveyed had this type of disorder.

**Conclusions:** Immediate interventions and support for health professionals are essential to improve psychological resilience and avoid the appearance of mental health problems.

**Disclosure:** No significant relationships.

**Keywords:** Emotional impact; Health professional; COVID19

### EPP0413

#### Psychological impact of COVID19 outbreak and coping strategies among Tunisian medical students

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**Introduction:** The COVID19 pandemic came with unprecedented measures that impacted every aspect of the student's life making them vulnerable to psychological distress.

**Objectives:** The aim of this study was to assess anxiety and depressive symptoms in relation to the coping strategies during the COVID19 pandemic among medical students.

**Methods:** We conducted a web-based cross-sectional study among Tunisian medical students. We used an anonymous survey comprising sociodemographic characteristics, the Hospital Anxiety and Depression scale and the brief COPE.

**Results:** A total of 216 students participated in the study; 78% were female and most respondents were enrolled in first and second year of medical studies (53%). The frequency of depressive and anxiety symptoms were respectively 28% and 40%; females experienced

significantly higher depression and anxiety scores ( $p < 10^{-3}$  and  $p = 0.02$  respectively). Most used coping strategies were self-blame, planning, acceptance, distraction, positive reframing, active coping and religion (99%-96%). The least used coping strategies were substance use (13%) and denial (52%). We found that gender was associated with a significant difference in the coping styles where females scored higher on religious coping and denial whereas males used more humor coping. Depression and anxiety were significantly associated with denial coping. Humor, acceptance, positive reframing and active coping were significantly associated with lower depression rates. Humor coping and active coping were associated with lower anxiety rates.

**Conclusions:** Our study shows alarming rates of depression and anxiety among Tunisian medical students during the COVID19 pandemic. A targeted intervention to promote mental health using the coping styles might be useful in this population.

**Disclosure:** No significant relationships.

**Keywords:** Anxiety and depression; medical students; covid 19; coping strategies

### EPP0414

#### Grief during the COVID-19 pandemic: A cross-sectional online survey in university students

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**Introduction:** Almost 5 million people worldwide have lost their lives due to SARS-CoV-2 (source: WHO coronavirus (COVID-19) dashboard, data of 1.10.2021; <https://covid19.who.int/>) and therefore, globally, there is an increase of people in grief due to the death of a significant other.

**Objectives:** To study psychological correlates of grief during the COVID-19 pandemic.

**Methods:** 591 university students, with a mean age of  $23.84 \pm 7.95$  years (range 18-65 years; 76.8% women; 91.2% Portuguese) completed an online questionnaire during the second COVID-19 confinement (from 15.02 to 13.03.2021), with socio-demographic questions, the Pandemic Stress Index, the Mental Health Inventory, Insomnia Scale, questions on physical/ psychological health, and social isolation.

**Results:** Students bereaving the death of a significant other ( $n=93$ , 15.7%;  $n=25$ , 26.9% reported cause was SARS-CoV-2; time since death:  $< 3$  months to 1-year), compared to those who did not ( $n= 498$ ; 84.3%), described poorer psychological health, higher psychological distress (depression, anxiety, lack of control) and sleep difficulties, higher levels of stress (higher impact of COVID pandemic in daily life, and higher behavior changes in response to COVID-19) and more social isolation.