

traumatic stress disorders in those recovering from Covid-19. The results confirmed the continuing effect of the program after the follow-up period.

**Conclusions:** Using metacognitive therapy has an effective effect in reducing post-traumatic stress disorder, and it can be used with many psychologically disturbed people.

**Disclosure of Interest:** None Declared

## O0092

### Prevalence of Prolonged Grief Disorder and Related Clinical Factors During the COVID-19 Pandemic in Turkey

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**Introduction:** Prolonged grief disorder has recently been added to the Diagnostic and Statistical Manual of Mental Disorders 5, Text Revision. To understand the health burden and then allocate economic and professional resources, it is necessary to provide epidemiological data for this new disorder. More information on the characteristics of people suffering from PGD is also beneficial to better identify individuals at risk.

**Objectives:** This study, therefore, aimed to estimate the prevalence of the PGD criteria in a special period such as the Covid-19 pandemic and in a representative population-based sample, evaluate the sociodemographic, and loss-related correlates of PGD case-ness and explore possible predictors.

**Methods:** The study included 126 people (97 females/29 males) who lost a relative for any reason during the Covid-19 pandemic period (March 2019-January 2022) in Turkey. We used self-reported data from participants who all completed questions on socio-demographic and loss-related characteristics plus Hospital Anxiety and Depression Scale (HADS), Prolonged Grief Disorder Scale (PG-13), Multidimensional Scale of Perceived Social Support (MSPSS), Adult Separation Anxiety Questionnaire (ASA-27).

**Results:** Median age was 34 years, range (18-63); 12 participants were diagnosed with PGD (9.5%). No difference was detected between deaths due to COVID-19 and its complications and deaths due to other causes in terms of PGD diagnosis and PGD symptom severity. When we divide the participants into two groups according to PGD diagnosis (PGD and nonPGD): The average age of the PGD group was higher ( $Z=-2.068$ ;  $p=0,31$ ) and they had more additional medical conditions ( $\chi^2=7.21$ ;  $p=0,007$ ). Thoughts of guilt were more common in the PGD group ( $\chi^2=7.92$ ;  $p=0,005$ ). Additionally, HADS-total, HADS -depression, HADS -anxiety and ASA-27 were higher in the PGD group (respectively:  $Z=-4.047$ ;  $P=0,00$ ,  $Z=-4.209$ ;  $P=0,00$ ,  $Z=-3.437$ ;  $P=0,001$ ,  $Z=-1.975$ ;  $P=0,048$ ). PGD occurred most frequently after first-degree losses ( $\chi^2=13.67$ ;  $p=0,00$ ) and was inversely proportional to the age of the loss ( $Z=-1.979$ ;  $P=0,04$ ). In the nonPGD group, the rate of believing in any religion ( $\chi^2=5.807$ ;  $p=0,016$ ). and the level of fulfilling the requirements of the religion were

higher ( $\chi^2=10.584$ ;  $p=0,05$ ). In the linear regression analysis examining the predictors associated with the severity of prolonged grief; the deceased person was a first-degree relative ( $t= 6.23$ ;  $p<0,001$ ) and younger in age ( $t=-3.71$ ;  $p<0,001$ ), the presence of guilt ( $t= 3.28$ ;  $p=0,001$ ), and increased separation anxiety ( $t= 4.13$ ;  $p<0,001$ ) and depression scores ( $t= 4.29$ ;  $p<0,001$ ) were significant boost of prolonged grief severity.

**Conclusions:** Although higher PGD rates were expected in deaths due to Covid-19 compared to deaths due to other causes, we did not detect any significant difference in this study. However, this study identified some possible predictors associated with PGD.

**Disclosure of Interest:** None Declared

## O0093

### Physical healthcare gap among patients with severe mental illness through the COVID-19 pandemic. Preliminary results from a real-world investigation in Lombardy, Italy

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**Introduction:** Patients suffering from mental disorders tend to be less adherent to the recommended therapies. Moreover, the COVID-19 pandemic had a global impact on physical and social well-being, which turned out stronger in the most fragile patients, like those with a mental condition.

**Objectives:** To assess whether the COVID-19 pandemic influenced the physical healthcare gap between patients with and without severe mental illness (SMI) treated for chronic conditions.

**Methods:** Data were retrieved from Healthcare Utilization Databases of Lombardy region (Italy). Prevalent users of antihypertensive drugs, statins or antidiabetic drugs, receiving healthcare in Lombardy during 2020, were identified. Among them, those with a previous diagnosis of schizophrenic or bipolar disorder were selected and matched with up to 3 patients without any sign of mental disorder by sex, age and number of contacts with the NHS during the previous year. 3 cohorts (not necessarily independent) were formed.

High adherence to specific recommended drug therapies and discontinuation during 2020 were evaluated.

Association between presence of SMI and high adherence was evaluated by using a log-binomial model (risk ratios, RR with 95% CI); a Cox model (hazard ratios, HR) was used for discontinuation.

As comparison, same analyses were performed to the cohorts of prevalent users in 2019, to evaluate the impact of the COVID-19 pandemic. Results were stratified according to the type of mental disorder.

**Results:** 36'436, 14'136 and 12'597 prevalent users of antihypertensives, statins or antidiabetics respectively were identified, of which 25% with SMI (9'109, 3'536 and 3'152 respectively).

During the pandemic period, for all the three cohorts, patients with mental illness had 10% lower probability of being adherent to the recommended drug therapies.

The association between SMI and discontinuation was significant and varied among the three cohorts, with HR (95% CI): 1.27 (1.21; 1.33) for antihypertensives users, 1.16 (1.07; 1.26) for antidiabetics users and 1.08 (1.01; 1.16) for statins users.

Compared with 2019 the gap remained similar, except for discontinuation of antidiabetics, where the gap diminished from 34% in 2019 to 16% in 2020.

No differences between the two mental disorders were found.

**Conclusions:** Results show that suffering from a mental disorder in people with chronic physical conditions affects their adherence to recommended drug therapies. During the pandemic period, the restrictive measures adopted may have led to a better care by family members, counteracting any increase in the gap.

The healthcare gap in patients suffering from mental illness remains an unsolved problem of primary importance for public health.

**Disclosure of Interest:** None Declared

## Depressive Disorders

### O0094

#### N-acetylcysteine counteracts increased brain excitatory/inhibitory balance following maternal high-fat diet and restores emotional and cognitive profiles in adult mouse offspring

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**Introduction:** High-fat diet (HFD) consumption during pregnancy can shape fetal brain development, increasing susceptibility to mental disorders. Nevertheless, the mechanisms underlying these negative outcomes remain unclear.

**Objectives:** We hypothesize that mHFD induces inflammation and oxidative stress (OS) in the fetal brain, disrupting excitatory/inhibitory (E/I) balance in the adult brain. This results in altered hypothalamic-pituitary-adrenal (HPA) axis reactivity, emotional regulation, and cognitive function. We tested the ability of N-acetyl-cysteine (NAC) - a powerful anti-oxidant and anti-inflammatory compound - to counteract mHFD effects.

**Methods:** Our mHFD model consists of female C57BL/6N mice fed either HFD (fat 58%, carbohydrate 25.5%, and protein 16.4%) or control diet (CD, fat 10.5%, carbohydrate 73.1% and protein 16.4%) before and during pregnancy (13 weeks). After 5 weeks on diets, half of them received NAC (1g/kg) for 8 weeks, until delivery. Gene expression of *Il-1b*, *Cd68*, *Tmem119*, *iNOS*, and *Arg1* was measured in fetal brains. Cognitive function and emotional phenotype were assessed in adult male and female offspring through the

Morris Water Maze (MWM) and the Emergence test, respectively. HPA axis functionality was assessed by measuring plasma corticosterone levels by ELISA following acute stress. Gene expression of vesicular glutamate transporter 1 (*Vglut1*) and vesicular GABA transporter (*Vgat*) were assessed as markers of E/I balance.

**Results:** Exposure to mHFD induced inflammation and OS in the fetal brain of both sexes, by increasing *Il-1b* and *iNOS/Arg1*. Additionally, *Cd68* and *Tmem119* were specifically increased in females. In adulthood, mHFD reduced latency to emerge from the shelter in the Emergence test in both sexes. In females, mHFD impaired cognitive function, reducing time spent in the MWM target zone, and increased HPA reactivity in response to acute stress. Furthermore, mHFD decreased *Vgat* expression in both sexes, resulting in an imbalanced *Vglut1/Vgat* ratio towards excessive excitatory input. Maternal NAC supplementation rescued this imbalance.

**Conclusions:** Overall, these data show that mHFD increases inflammation and OS in fetal brains, with greater effects in female offspring, inducing alterations in the E/I neuronal balance with concomitant disruptions of the neuroendocrine system and the emotional and cognitive profiles during adulthood. The supplementation with NAC was effective in rescuing the E/I imbalance as well as the behavioral phenotype.

**Disclosure of Interest:** None Declared

### O0095

#### Depressive Symptoms and Urbanization - A Cross-Sectional Network Analysis

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**Introduction:** With increasing urbanization, more people are exposed to mental health risk factors stemming from the urban social or physical environment. However, research on urbanization and depression is not clear.

**Objectives:** This study aimed to explore environmental and social factors with depression symptoms in view of a network theory of mental health disorders.

**Methods:** The study was conducted among a representative sample of 3,296 habitants of Metropolis GZM (63% of women) - the most urbanized region in Poland. The measurements used were PHQ-9, UCLA, Neighbourhood Cohesion (Neighbourhood Belonging and Social Cohesion), REAT 2.0 (Quality of architecture in neighborhood area), distance and frequency use of green public areas, Self-Rated Health, Physical Activity, size of place of residence per person.

**Results:** The prevalence of depression risk in villages ( $N=713$ ), towns under 20,000 ( $N=219$ ), towns (under 99,000;  $N=823$ ), and cities (under 300,000;  $N=1541$ ) was 44.2%, 44.7%, 39.2%, and 34.9% respectively.

The depression nodes with the highest centrality degree and expected influence were PHQ9 (suicidal thoughts), PHQ2 (feeling depressed), and neighborhood belonging. Living in a more urbanized area (UA) had a smaller centrality degree in the network.