strategies) in a sample of people with SMD compared with two control groups: other mental disorders (OMD) and healthy controls (HC).

Methods: An anonymous online questionnaire using a snowball sampling method was conducted from March 19-26, 2020 and included sociodemographic and clinical data along with the Spanish versions of the Depression, Anxiety, and Stress Scale (DASS-21) and the Impact of Event Scale (IES). A total of 21,279 people living in Spain answered the questionnaire, and 125 people with SMD were included in the analysis. Subjects in each of the two control groups (OMD, n = 250; HC, n = 250) were matched (ratio:1:2) for sex and age (± 1 year) with the SMD group. We performed descriptive and bivariate analyses and multinomial and linear regression models.

Results: People with SMD [mean age = 43.25 years (SD = 14.41); 61.6% females] had statistically significantly higher scores on anxiety, stress, and depression subscales of the DASS-21 compared with the HC group, but lower scores than OMD in all domains (p < 0.05). Most people with SMD (87.2%) were able to enjoy free time, although control groups had higher percentages. After controlling for confounding factors, anxiety was the only significant psychological domain with lower scores in HC than people with SMD (OR = 0.721; 95% CI: 0.579 - 0.989). In the SMD group, the multiple linear regression model (R2 = 0.580, F = 41.027, p < 0.001) found that higher anxiety was associated with being single (β = 0.144, t = 2.291, p = 0.024), having COVID-19 symptoms (β = 0.146, t = 2.395, p = 0.018), and a higher score on the stress subscale (β = 0.538, t = 7.635, p < 0.001); whereas being able to enjoy free time was a protective factor (β = -0.244, t = -3.692, p < 0.001).

Conclusions: Our results showed that patients with SMD reacted to the pandemic and the lockdown restrictions with higher anxiety levels than the general public, suggesting that this domain could be a criterion for early intervention strategies and closer follow-up.

No conflict of interest

References


P.860
Compassion fatigue, burnout and hopelessness of the health workers in COVID-19 pandemic emergency

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Background: Providing assistance and support to people with complex disabling organic and mental disorders can increase the work-stress burden. The current health emergency due to the coronavirus pandemic can aggravate and increase the exposure of health workers (stressful workload, with increased anxiety, increased responses to stress and Compassion Fatigue (CF) [1]. All this can lead to negative effects on mental and physical well-being, incorrect behavior and looking for help that can overburden healthcare facilities and on available resources [2]. In mental health workers the hope is one of the main coping strategies and is a resource that influences people’s ability to interact with stress in life-threatening situations [3].

Objective: The aim of our study was to investigate the stress of mental health workers (particularly psychiatrists, psychologists, social workers, psychiatric nurses, and healthcare support workers. To evaluate the role of the fatigue of compassion of health workers with patients hospitalized in different medical and surgical hospital departments or in psychiatric residential inpatients affected by subacute or chronic organic diseases. To assess the role of hope in the coronavirus pandemic explosion period.

Methods: In a natural observational study, we assessed the effects of the COVID pandemic on the psychological health of Multidisciplinary (psychiatric, cardiologic, orthopedic, neurological and respiratory) Rehabilitation Centre “Villa dei Pini”, Avellino, Italy. In 102 (54 F, 48 M) healthcare workers (doctors, psychologists, nurses, rehabilitators, social and health workers), we researched the levels of stress, fatigue of compassion and hope with the following rating scales: Fatigue Compassion Scale (FCs); Caregiver Burden Inventory (CBI); Professional Quality of Life (PROQoL)-Compassion Satisfaction and Fatigue Subscales; Beck Hopelessness Scale (BHS).

Statistical significance was ascertained by t-tests or repeated measures ANOVA (to test multiple groups) with EZ-Analyzer 3.1 Excel Platform. The second phase of the study involves evaluating the results of these scales after one year.

Results: Compassion fatigue (FCs): Data showed an increase of overall compassion fatigue scores in all workers; however, there was a more increase CF in psychiatric health workers (22% and 33%, respectively). With PROQoL data are superimposable (24% vs 37%, respectively). The most significant data of FC scale is represented by the percentage of vicarious trauma in psychologist group (39.26%); this group has also a high percentage also in job burnout (35.23%).
These data are similar to those of our previous study. Burnout (CBI): With CBI we observed a greater increase in the mean values in all the groups analyzed (p<.003). The highest mean total result is that of nurses (39.81%) at CBI scale.

Hopelessness (BHS): About half of the respondents scored above the average (47.5%) in mental health workers vs (34%) multidisciplinary workers.

Conclusions: During a health crisis, health workers are subjected to high levels of stress. In our small observational group, the fatigue of compassion and burnout are higher to previous data in mental health workers. The hopelessness can be an important indicator for implementing psychological and pharmacological intervention strategies.

No conflict of interest

References


P.861

Gender-specific involvement of Methyl-CpG binding protein 2 in vulnerability to stress: evidence from a healthy cohort

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Background: stress is a main issue nowadays, given the increasing prevalence of highly debilitating mental illnesses arising as a consequence of lifetime stressful experiences. Stress outcomes are strictly dependent on individual vulnerability. The ability to adaptively face stressful situations has been demonstrated to strongly contribute to stress susceptibility, but apart from the outlined gender differences, its biological basis have not been well defined yet [1]. Epigenetics, lying at the interaction point between genes and environment, is drawing increasing interest in the field of stress disorders. DNA methylation, in particular, has been associated with aberrant stress adaptation [2]. The X-linked Methyl-CpG binding protein 2 (MECP2) is the main reader of DNA methylome and has been found altered in a number of mental disorders of stress origin, suggesting MECP2 as a promising candidate protein at the basis of stress susceptibility [3-5].

Objective: we sought to explore whether MECP2 may predict the severity of certain traits and symptoms clusters that could confer vulnerability to stressor-related disorders in healthy humans and the effects of gender thereon.

Methods: MECP2 mRNA levels were analysed in blood samples from 217 healthy people of Caucasian ethnicity (73 females; mean age 22.01, s.d. 3.89). Participants filled questionnaires regarding stress coping style (SVF78), perceived exposure to chronic stress (TICS) and symptomatology pertaining to depressive, anxiety and dissociative symptom clusters (ADS, STAI, DES). Structural Equation Modeling was used to test the hypothesis that MECP2 expression influences stress-related symptomatology via the mediation of stress adaptation measures, i.e. the use of negative strategies to cope with stress and chronic stress perception, and gender effects thereon (females=1, males=2). Models were excluded when poorly fitted (c2/df >3; CFI<0.95; RMSEA<0.05). Mediation was assessed using Bias Corrected Bootstrapping method (95% confidence intervals; 2000 resamples).

Results: MECP2 was found to directly predict negative coping (β=-0.139, p<0.05) and, with its mediation, to be indirectly associated to chronic stress perception (β=-0.078, p<0.05), depressive (β=-0.082, p<0.05), anxiety (β=-0.098, p<0.05) and dissociative symptoms (β=-0.048, p<0.05). Gender was negatively related to poor coping strategies (β=-0.139, p<0.05) and predicted indirectly the chronic stress (β=-0.155, p=0.001), depression (β=-0.162, p=0.001), anxiety (β=-0.194, p=0.001) and dissociation (β=-0.095, p=0.001) measures. When the model was re-specified separately on males or females, MECP2 was directly associated to negative coping and indirectly predicted the other measures only in males (negative coping: β=-0.231, p<0.01; chronic stress: β=-0.11, p<0.05; depression: β=-0.122, p<0.05; anxiety: β=-0.149, p<0.05; dissociation: β=-0.078, p<0.05) but not in females. Importantly, MECP2 expression levels did not differ between genders (t215=-1.399, p=0.163).

Conclusion: present results stand for a gender-specific involvement of low peripheral MECP2 levels in supporting vulnerability to psychiatric disorders etiologically related to stress, by altering one’s ability to adapt to stressful circumstances. Present findings shed new light on the complex biology underlying stress vulnerability, suggesting MECP2 blood levels as a possible marker for identifying at-risk populations for stress disorders, and may pave the way for the development of a gender-specific medicine, even in preventive interventions.

No conflict of interest

References