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Investigation into the factors potentially associated with poor psychological wellbeing in Italian healthcare professionals during the COVID-19 pandemic

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Background: Italy was strongly affected by the COVID-19 pandemic during spring (first wave) and autumn 2020 (second wave); healthcare workers’ mental health was deeply conditioned by this situation and by the exposition to the highest risk to get infected themselves [1].
Aim: of this study was to investigate how healthcare workers’ mental wellbeing was altered by the massive exposition to the pandemic, together with pre-existing personal factors which can be involved in mental health.
Methods: Sixty-four healthcare workers from Fondazione IRCCS Policlinico, Milano, were included. Information were retrieved from an ad-hoc questionnaire. Mental health was assessed by the following rating scales: Impact of Event Scale-revised (IESR) and Patient Health Questionnaires-9 (PHQ-9). The first scale evaluates the post-traumatic stress symptoms, while the second severity of depression. The healthcare professionals were asked to fill the scales thinking about their symptoms during both the first and the second wave. Descriptive analyses were performed. Rating scale scores between first and second wave were compared by paired sample t-tests. In addition, second wave rating scale scores were compared between workers grouped by qualitative variables through analyses of variance. Correlations were used to analyze the relation between quantitative variables and second wave rating scale scores. Two final multivariable linear logistic regression models were finally performed with the two rating scale scores in the second wave as dependent variables and statistically significant variables in the univariate analyses as independent ones.

Results: Total sample included 25 males and 39 females. 53.2% of workers directly took care of COVID19-infected patients. 34% and 18% of the total sample manifested respectively in the first and second wave over the threshold scores for significant Post-Traumatic Stress Disorder (PTSD) symptoms as showed by IESR. In addition, 23.2% and 13% of the total sample manifested respectively in the first and second wave over the threshold scores for significant depressive symptoms as showed by PHQ-9. During the second wave the professionals showed less PTSD (t = 5.536, p < 0.001) and depressive symptoms (t = -5.599, p < 0.001) compared to the first one. Regression models showed that: (1) IESR scores were significantly associated with type of ward (COVID emergency or not) (β = 0.24, p = 0.03); (2) PHQ9 scores were significantly associated with male gender (β = 0.32, p = 0.01) and IESR scores (β = 0.62, p < 0.001).
Conclusions: despite most of available literature is focused on the negative effect of COVID-19 on patients’ mental health [2,3], also healthcare professionals suffered from the psychological consequences of the pandemic. The difference in the scores between the first and the second wave suggests the fact that health workers passed from an acute mental involvement to a chronic accommodation to a stressing situation. Given the large number of workers fighting worldwide against COVID19 pandemics, the presence of mental illness among them can reach huge proportions. Female workers globally showed lower scores at the PHQ9 scales, suggesting the necessity of further investigations on the association between gender and capacity to manage environmental stressors.

No conflict of interest

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COVID-19 and grieving in children and adolescents - non-systematic review

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Background: For some children and adolescents, the deaths related to COVID-19 are their first experience with death. And the loss of a loved one during this pandemic comes with extra-challenges such as COVID-19 death characteristics (e.g., intensive care admission, unexpected death, impossibility to visit the hospitals) and circumstances (e.g., secondary stressors, social isolation, deprivation of many funeral rites). This may precipitate a worldwide increase of prolonged grief disorder and persistent complex bereavement disorder. And children may in fact be at a higher risk for mental health effects, given their limited capacity to understand their surroundings, cope with stressors, and control their environments.

Methods: Bibliographic research in English, in the platforms PubMed, Web of science and Science Direct with the following search strategy: (mourning OR grieving OR grief OR bereavement) AND (COVID-19 OR coronavirus) AND (children OR adolescent). The studies where selected based on their relevance and the results are presented in a narrative form.

Results: We retrieved 385 articles after excluding duplicates. After evaluating the title and abstracts we included 10 articles in this review, including 2 case reports. No systematic reviews were retrieved.

Victims of the virus will likely leave behind a large number of grieving children and grandchildren, with rates of 2.2 children and 4.1 grandchildren bereaved for each person who dies. In usual circumstances, bereavement would result in mental health conditions for only a minority of this group. The particular circumstances associated with COVID-19 deaths may constitute a significant risk factor for children’s grief process, as research shows that unexpected and sudden losses or multiples deaths in the family are particularly impactful.

Of central concern is the transformation of normal grief and distress into prolonged grief and persistent complex bereavement. A mediating factor in this type of reaction in young people is the lack of social support at the time of loss, which may be intensified due to current social limitations and exhaustion of emotional resources in the caregivers (e.g., parents).

This pandemic has accelerated many of the risk factors for complicated grief. Social isolation has become a global policy, collective structures for grieving have been difficult or impossible to access, young people have been forced to say goodbye to loved ones via electronic devices.

Pre-Covid, research had established that young people from disadvantaged backgrounds were more likely to lose a parent early in life and to suffer from complicated grief due to fewer opportunities to bounce back. Covid-19 has impacted disadvantaged communities significantly and consequently, a significantly elevated risk of complicated grief for young people from disadvantaged backgrounds is expected.

Conclusions: It is likely that the effects of COVID-19 deaths on children’s and adolescents mental health will be profound. And given the traumatic and unexpected nature of Covid-19 deaths, we may see a rise in the numbers of complicated grief. Future research in this area is needed and should include observational and epidemiologic studies as well as a literature review on complicated grief and young people during and in the aftermath of this pandemic.

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Sex-dependent effects of a chronic treatment with lurasidone on the vulnerability to chronic stress exposure

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Introduction: Mental disorders are prevalent worldwide, resulting in a considerable social and financial burden. Exposure to stressful experiences throughout life accounts for almost half of the risk for mental disorders. Hence, stress-induced alterations represent a key target for pharmacological interventions aimed at restoring brain function in affected individuals. However, limited information exists on sex differences in stress susceptibility and in the ability of pharmacological treatments to improve core pathologic domains associated with stress exposure.

Aim: On these bases, we aimed to characterize sex differences in the susceptibility to chronic mild stress, a well-established animal model of depression, and to investigate the effects of a chronic treatment with the multi-receptor antipsychotic drug lurasidone in normalizing the behavioural and molecular alterations produced by chronic stress exposure.

Methods: To this end, we applied the chronic mild stress paradigm that consists in the application of different mild unpredictable stressors for several consecutive weeks. Adult male and female Sprague Dawley rats were subjected to the chronic mild stress procedure for seven/eight consecutive weeks. Following initial two/three weeks of stress, both stressed and control groups received once-daily administration of vehicle or lurasidone (3 mg/kg) for subsequent five weeks. 24 hours after the last stress session, all animals were sacrificed, and brain samples were collected for the molecular analyses. Sucrose intake was used as a measure of anhedonia and the data were analysed by three-way