

18 840 in April 2020 and was the highest number since 2009 when the legislation was enacted in Taiwan.

We preliminarily examined the impact of COVID-19 confirmed cases and number of employees with unpaid leave on the number of domestic violence in all 22 counties and cities in Taiwan. Undoubtedly, higher numbers of COVID-19 confirmed cases corresponded with higher numbers of employees passively volunteered for unpaid leave in that county/city (r(14) = 0.915, P < 0.001). Results of the Pearson correlation indicated that there were significant positive associations between domestic violence detected by police and number of COVID-19 confirmed cases (r(14) = 0.649, P = 0.006), as well as the number of employees with unpaid leave (r(20) = 0.497, P = 0.019). The higher number of COVID-19 confirmed cases and employees with unpaid leave in the county/city saw a higher prevalence of reported domestic violence.

The rise in domestic violence during the COVID-19 pandemic was not only seen in the countries with higher numbers of cases, but also in countries experiencing social distancing like Taiwan. Of note, it is not only economic crisis that contributes to domestic violence with forced proximity itself also being a risk factor. Stressful life events during the COVID-19 pandemic, accompanied by economic pressure, injury, and illness, may exacerbate preexisting familial conflicts. The reported number of domestic violence is always underestimated and the impact of COVID-19 on domestic violence noticed currently is just the tip of the iceberg. While we are still grappling with the novel coronavirus, it is crucial to address the issue of the rise in domestic violence and take an actionable step forward, for instance, increasing accessibility to public resources through new technology and mental health resource allocation. At least, as the UK Government suggests, guidance on social isolation does not apply if you need to leave your home to escape domestic violence. 10 Besides providing reimbursements for economic loss, early screening and identification of those vulnerable to domestic violence, particularly those infected with COVID-19, experiencing unpaid leave or disruption of social networks, are warranted in this pandemic period. Appropriate screening tools should be more readily available and first responders, physicians and other healthcare personal need to be made aware of the potential for increased domestic violence. Social media outlets should be used to raise awareness of the psychological repercussions of social isolation. Telehealth-related service should be expanded during this pandemic, including the accessibility to 24/7 public health service through teleconference, initial screening and psychiatric evaluation by videoconference, and telemedicine services for those in home isolation and quarantine.

### **Disclosure statement**

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# Impact of the SARS-CoV-2 pandemic on psychiatric emergencies in northern Greece: Preliminary study on a sample of the Greek population

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We write to communicate the results of our study on the impact of the SARS-CoV-2 pandemic on mental health, and in particular on psychiatric emergencies, in a Greek population sample. This Letter to the Editor was written on 15 May 2020, examining the lockdown period in Greece, which lasted from March to mid-May 2020.

All data known so far regarding the conditions in everyday human life had recently been overturned worldwide by measures proposed by experts and implemented by governments in order to fight the outbreak of the novel coronavirus pandemic.<sup>1</sup>

In Greece, the novel coronavirus pandemic broke out and expanded from 26 February 2020 onwards, while a reduction in the number of cases was not noticed until 30 April 2020. Following the announcement of the first three confirmed cases in Greece on 27 February, all festive religious and political activities that involved gatherings of people were canceled until further notice in order to reduce the contamination risk. In addition, hospital outpatient clinics ceased operations on 28 February. Further measures were taken on 10 March, including the suspension of operation of all educational structures at all levels, followed by the closure of public gathering places on 13 March. From 23 March, significant restrictions were imposed on public and car transportation of citizens throughout the country. On 4 May, the government decided to gradually de-escalate emergency measures and gradually resume operations. By 15 May, the resumption had not yet been completed.<sup>2</sup>

As people were forced to stay indoors and reduce social interactions to a dramatic degree, an escalation of inner tension in the population would be a reasonable hypothesis. There might have been an intensification of already existing relational issues among people living together, while individuals living alone may have faced aggravating issues of loneliness, <sup>3–5</sup> especially high-risk individuals (including those who would have experienced worsening mental disorder symptoms when deprived of care due to the predominating challenging circumstances; people experiencing difficulty in making ends meet or other financial problems created or aggravated by the lockdown; and those already with a history of major psychiatric disorders, previous suicide attempts, or other forms of expressed violence). <sup>6, 7</sup> It is worth noting, however, that Greece has a relatively low suicide rate of five suicides per 100 000 inhabitants and 526 suicide cases per year (incidence; male : female [M : F] ratio, 4.05:1). <sup>8</sup>



The authors of the present article constitute a team of mental health professionals working in the mental health department of AHEPA University General Hospital of Thessaloniki, which is the reference hospital for novel coronavirus cases in northern Greece. The purpose of the present communication was to record and detect a possible change in the profile of psychiatric emergencies during the period of implementation of restrictive measures, as well as the social and psychological impact of the pandemic.

All records of emergency cases addressed at the psychiatric emergency department of AHEPA University General Hospital of Thessaloniki were investigated during the following equal time intervals: March to mid-May 2019, mid-November 2019 to end of January 2020, and March to mid-May 2020. The variables examined were raw numbers of cases attending the psychiatric emergency room (n), their M: F ratio, as well as their age range and mean age. The cases were diagnostically recorded according to the ICD-10 and then grouped and counted based on the first digit of the ICD-10 taxonomy. Therefore, all F1\* (F10-F19) cases stood for mental and behavioral disorders due to psychoactive substance use: all F2\* (F20-F29) cases stood for schizophrenia spectrum disorders; all F3\* (F30-F39) cases stood for affective disorders; all F4\* (F40-F49) cases stood for anxiety, dissociative, stress-related, somatoform, and other nonpsychotic mental disorders; all F6\* (F60-F69) cases stood for disorders of adult personality and behavior; all F0\* (F01-F09) cases stood for mental disorders due to physiological conditions; Z04.6 stood for psychiatric examination requested by authority; and Z65.1 stood for psychiatric examination of detainees. In addition, it was recorded and counted whether the case concerned a suicide attempt. The data of the examined period of March to mid-May 2020 were compared separately with the same period of the previous year (March to mid-May 2019), but also with the exact previous period of the same year, mid-November 2019 to end of

A bivariate analysis was performed to examine relations between the examined variables. Fisher's exact test and the Mann–Whitney U-test were used in IBM SPSS V21. All tests were two-tailed and statistical significance was set at P < 0.05.

During the time of expansion of the novel coronavirus pandemic accompanied by restrictive measures in Greece, the number of emergency cases arriving at our hospital for psychiatric examination approximately decreased by half, which was a statistically significant outcome (P-value < 0.01). The M: F ratio (males outnumbering females) did not change significantly, nor did the mean or median age of the subjects (early 40s). Despite the steep fall in the total number of cases examined, a significant increase of the psychiatric emergencies associated with relapses of schizophrenia spectrum disorders was noted (P-value < 0.05) accompanied by an increase in prosecutorial orders for psychiatric assessment and involuntary hospitalization (P-value < 0.05). A moderate statistically significant increase was also observed in suicide attempts (P-value < 0.05), which, as a percentage of the total number of cases examined, increased threefold (Table S1).

The results of the present preliminary study on the implications of the SARS-CoV-2 pandemic on psychiatric emergencies in a sample of the Greek population reflected that schizophrenia spectrum disorders may have been much more prone to relapse compared to other mental disorders. Furthermore, patients with schizophrenia spectrum disorders may have been more indifferent to the fear of infection contamination.

An increase in prosecutorial orders for psychiatric assessment and involuntary hospitalization was noted, which indicated a potential hypervigilance on the part of the police and the judicial authorities in order to safeguard the national measures against infection spread.

A moderate statistically significant increase was also observed in suicide attempts. This finding is consistent with other studies on suicidal rates during the novel coronavirus pandemic, attributing the increase to the fear of the infection itself as well as to social stigma, isolation, depression, anxiety, emotional imbalance, economic lockdown, lack and/or distorted information, and financial and future insecurities. Furthermore, as schizophrenia spectrum disorders are in a high suicide risk category, an increase in their relapse may be associated with the number of suicide attempts.

The present letter aims to communicate preliminary results of an assessment of the SARS-CoV-2 pandemic's impact on psychiatric

emergencies in northern Greece within the implementation period of compulsory measures against the pandemic spread by comparing the mental health emergency rates with the corresponding rates of the pre-pandemic period. The findings so far have been indicative of an overall decrease in the total number of psychiatric emergencies, but with a significant rise in cases of schizophrenia spectrum disorders needing psychiatric assistance and prosecutorial orders for psychiatric assessment. A moderate increase in suicide attempts has been noticed as well. The impact of the SARS-CoV-2 pandemic should be reevaluated, however, with a comparative study for psychiatric emergency rates in the post-pandemic period so that long-term results can be considered. 10

### **Disclosure statement**

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## **Supporting information**

Additional Supporting Information may be found in the online version of this article at the publisher's web-site:

Table S1. Pivotal table.

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## Psychosocial consequences of COVID-19 in children, adolescents and young adults: A systematic review

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This Letter presents the main findings of a systematic review of 21 studies  $(n = 33\ 398)$  on the psychosocial consequences of COVID-19 in children, adolescents, and young adults, following the PRISMA guidelines; the background, methods and results are presented as an online Supplement. According to our findings, excess worrying, irritability, home confinement, and fear of COVID-19 infection and transmission are associated with mild to severe anxiety symptoms during the COVID-19 epidemic. Isolation could be a risk factor for deterioration in mental health, including depressive and anxiety symptoms, distress, fear, post-traumatic stress, and insomnia.  $^2$ 

Regarding anxiety disorders, the fear of COVID-19, widely known as 'coronaphobia,' has enhanced anxiety symptoms, with a further aggravating role mediated by isolation at home. Individuals with anxiety disorders tend to be preoccupied with excessive hand-washing, extreme cautiousness, social distancing measures and unnecessary shopping. Furthermore, a strong correlation between family relations and fear of contracting COVID-19 was noted. Focusing especially on COVID-19-infected patients, they were also affected, expressing high anxiety levels, as reported in SARS and MERS patients in the past.

Mild to moderate depressive symptoms were also often expressed, similarly to those recorded in the SARS and MERS periods, but at a geographically larger extent. According to the findings, the situation imposed by social distancing and isolation has affected the emotional reaction of the public broadly, causing not only distress, but also frustration, irritability, hopelessness, little interest or pleasure in activities, reduction in outdoor activities, extensive mobile phone use, and negative emotions about COVID-19. Moreover, an increase in violence during the pandemic, especially in adolescents and young adults, has been reported in the USA.

During the COVID-19 pandemic period, behavioral changes have also been identified in children and adolescents with autism spectrum disorder (ASD) and attention-deficit/hyperactivity disorder (ADHD). Children with ASD, monitored by their parents, more frequently failed to follow through simple instructions, lost their independence and communication skills, engaged in problematic interactions with their parents, and performed pranks for attention.9 A series of guidelines, techniques, and physical exercises have been promoted in order to help ASD children remain calm during the pandemic. 6 Children with ADHD, on the other hand, have been reported by their parents as uncontrollably angry, and unable to stay focused and perform everyday routines. 10 New guidelines have been established to help address the mental health issues of children, proposing that monitoring medication and maintaining a strict sleep schedule could be beneficial. 10, 11 Although online therapy sessions have been available and are considered adequate, lack of face-to-face clinical evaluation has limited their effectiveness. 12

Furthermore, according to our findings, children, adolescents, and young adults have stayed home, restricting their mobility to absolute necessity and practicing social distancing due to school and university closure. <sup>13</sup> The loss of everyday peer-to-peer contact, uncertain academic career, and use of online learning have created a new reality also in education. Screen time, not only for educational purposes, but also leisure

activities, has increased, with excessive use of social media, online gaming, and watching movies being more frequent.<sup>13</sup> Thus, physical activity has been minimized and physicians have suggested daily activities, such as aerobic, strength activities, or bone strengthening, in order to avoid consequences of inactivity.

Children and parents have experienced everyday challenges and one important finding was that parents seemed to be more anxiety-stricken than their children. Crucial efforts by parents have been made in introducing stress-relief activities, including reading and exercising, with online sources providing tips and activities. Also, parents of children with special needs have experienced more mood swings and excessive concern about the COVID-19 impact according to the main findings.

The use of technology has made a significant impact in the well-being of individuals, with health workers (such as doctors, psychiatrists, psychologists, social workers, and others) being available through online services. Despite the limitations of no physical interaction, telehealth has been reported as effective in diminishing and managing emotional and anxiety symptoms, not only in youth, but also in parents. <sup>2, 4, 6, 13</sup>

In conclusion, a deterioration in mental health is highlighted, encompassing anxiety and mood symptoms, and developmental, stressor-related, and eating disorders among children, adolescents, and young adults during the COVID-19 pandemic. The new reality in everyday life and education due to COVID-19 has burdened the existing conditions, especially in children with neurodevelopmental disorders, where an enhancement in dysfunctional behaviors has been noted. COVID-19 is a rapidly evolving scientific and social field; therefore, further results are anticipated to rapidly accumulate.

### **Disclosure statement**

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