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## Letter to the Editor

## Psychosis and pandemics: Is there a secret protector?



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## Dear Editor,

During the past few months, it seems that COVID-19 is the focus of everything we read and discuss. There has been an evident surge in research papers concerning the COVID-19 outbreak. Although authors have covered a wide range of topics concerning COVID-19 and mental health, no research has been done examining the incidence of psychiatric disorders in general or psychotic spectrum disorders during the pandemic.

The available literature states that social distancing measures will inevitably increase loneliness, isolation, and anxiety and that the response to such situations is complex (Carvalho et al., 2020). Home isolation also increases financial pressure as the economic fallout of the outbreak worsens, and individuals face unemployment and housing instability (Carvalho et al., 2020). Individuals with preexisting mental disorders have a higher chance of symptom exacerbation or impaired functioning due to increased stress and fear caused by the outbreak. All of these factors are known risk factors for both the onset of and the exacerbation of psychotic symptoms. Another possible risk factor for the development of psychosis can be derived from the known correlation between virus pandemics and the prevalence of schizophrenia; there is an ongoing debate as to whether or not viruses have neurotropic properties and can cause psychotic symptoms. Adding to all of this, Zagreb was confronted with another challenge, an earthquake. The earthquake happened in the midst of isolation measures, early on Sunday, March 22nd of 2020. The earthquake had a Richter magnitude of 5.5; the maximum intensity felt according to the Modified Mercalli intensity scale was VII (very strong). Numerous aftershocks followed the earthquake, the strongest of which had a magnitude of 5.0 on the Richter scale, making this the strongest earthquake in Zagreb since the year 1880, causing substantial damage in the historical city center. One would assume that two such high-stress events happening at the same time would trigger an increase in psychiatric patient admissions, both those with preexisting conditions and those seeking help for the first time.

Our hospital, the largest psychiatric hospital in Croatia, however, had a decline in admissions rates during the pandemic. The situation did not change after the earthquake; there was no statistically significant increase in overall admission rates, nor was there an increase seen in the admission rates of patients with psychotic spectrum

disorders. A similar phenomenon was observed not long ago, during the Croatian War of Independence in the 1990s. During the war years, Croatian psychiatrists documented that the admission rates of patients with psychotic spectrum disorders did not change during the first four months of the war (in the year 1991) in comparison to the same four months preceding the war (in the year 1989) when our capital was in imminent danger (Jukić et al., 1992). One has to wonder why this is so. It would seem logical that psychiatric disorders, in general, especially psychotic spectrum disorders, would be a more common occurrence during difficult times full of uncertainty, accompanied by high levels of stress. Interestingly enough, high-stress events don't lead to higher admission rates of psychotic patients; this was documented after World Wars (Linden et al., 2012) and following the Great recession (Dagher et al., 2015). We know, however, that war and similar catastrophic events have psychological effects, the onset of which is often delayed by a few months, if not more. This has been reported after the occurrence of different types of catastrophic events, including epidemics. One could hardly argue that prolonged exposure to stress could in any way be a protective factor, as it is known that the rates of post-traumatic stress disorder (PTSD) are increased in people with psychosis in comparison to the general population. A possible explanation can be found in contagion psychology theories, by various authors from Gustave to Ogunlade (Duan et al., 2019). These authors hypothesized that people, on an unconscious level, tend to mirror the expression of emotions and behavior of the crowd; they come to feel and behave similarly to the overall crowd (Duan et al., 2019). The more uncertain and stressful the events are, the more prominent this phenomenon is; an example is the H1N1 pandemic (Duan et al., 2019), thus enforcing the notion that there is something collective keeping us sane. Examined from an evolutionary perspective, psychosis can be considered a natural defense mechanism, a crucial one for an individual leaving a familiar setting and venturing out on his/her own (Scheepers et al., 2018). This theory complements the contagion psychology theory; staying at home, surrounded by close family, instead of being exposed to a new and changing environment, silences the need for the manifestation of psychoses as the proposed evolutionary defense mechanism (Scheepers et al., 2018).

The catchphrase "we are in this together" now has a deeper meaning as this kind of behavior seems to have a profound impact on our psyche and is potentially a protective factor. Once again, it seems that the herd

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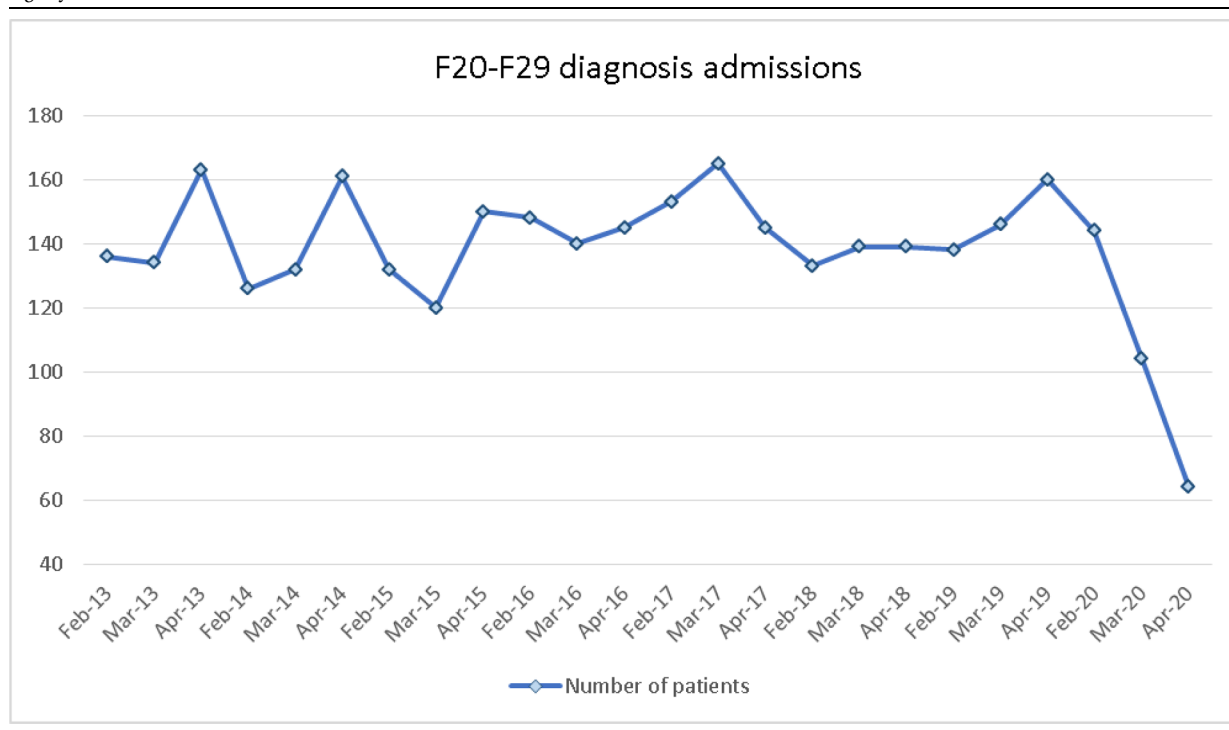
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**Table 1**

Number of F20-F29 diagnosis admissions in the University Psychiatric Hospital Vrapče during the tri-month period (February, March, April) in the last eight years.



offers more protection than just immunity.

Table 1.

#### CRedit authorship contribution statement

**Jakša Vukojević:** Conceptualization, Methodology, Data curation, Writing - original draft. **Jelena Sušac:** Conceptualization, Investigation, Writing - original draft. **Petrana Brečić:** Supervision, Writing - review & editing.

#### Declaration of Competing Interest

All authors have no financial and personal relationships with other people or organizations that could inappropriately influence (bias) their work or state.

All authors declare that they don't have any interests to declare.

#### Supplementary materials

Supplementary material associated with this article can be found, in the online version, at [doi:10.1016/j.psychres.2020.113199](https://doi.org/10.1016/j.psychres.2020.113199).

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