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Letter to the Editor

The Living Conditions Resulting from the Pandemic cannot be Held Responsible for the Reduction in Headaches Among Pediatric Patients

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Letter to the Editor

We read with interest the article by Payne *et al.* regarding a retrospective cohort study that examined the influence of demographic factors and lifestyle, both before and during the pandemic, on the diagnosis and treatment of headaches in 667 pediatric patients with various headache types ^[1]. No differences were observed in headache types between the pre-pandemic and pandemic periods; however, patients from the pre-pandemic period responded less frequently to treatment than those during the pandemic, and the proportion of obese patients was higher in the pandemic cohort than in the pre-pandemic group ^[1]. While the study is noteworthy, several points warrant discussion.

A first point concerns the retrospective study design ^[1]. Retrospective designs have various drawbacks, such as lower data quality, missing data, the inability to establish causality (only associations can be identified), susceptibility to recall and selection bias, difficulties in controlling for confounding factors, and generally lower evidentiary strength compared to prospective studies ^[2]. For instance, the extensive missing data regarding lifestyle factors, as shown in Table 5, render the results unreliable.

A second point is that stress is not the only trigger for headaches in pediatric patients ^[3]. Other potential triggers for headaches in children include anxiety, sleep disturbances, prolonged screen time, dehydration, skipping meals, weather changes, sensory overload, excessive physical exertion, mild head trauma, chocolate, processed foods, aged cheese, foods containing glutamate, artificial sweeteners, caffeine, and medication overuse ^[3]. Since some of these triggers were not included in the analysis, the conclusions drawn from it could be misleading.

A third point is that we disagree with the view that stress among children decreased during the pandemic because they did not have to attend school. Living together all day with one or both parents in a very small apartment may have caused stress due to cramped living conditions. Parents working from home may have directly passed their work-related stress on to their children. Conflicts between parents, resulting from constantly living together in the same apartment, may have placed a burden on the children. Furthermore, the children were likely aware of the dangers of the pandemic and the threat to their lives. Isolation, fear of the virus, and uncertainty may have led to an increase in anxiety, depression, and emotional exhaustion. Psychological strain was likely further exacerbated, particularly in individuals with pre-existing mental health conditions. The shift to remote learning may have led to a decline in academic performance. Children may have experienced increased physical inactivity, nutritional insecurity, and health impairments. Being "trapped" in an unstable home environment may also have contributed to domestic abuse and violence ^[4].

A fourth point is that neither comorbidities nor concomitant medications were documented ^[1]. Since comorbidities and concomitant medications can significantly influence the type of headache and the response to treatment, it would have been crucial to include these variables in the analysis. It would be of particular interest to know how many individuals in the pandemic cohort contracted a SARS-CoV-2 infection and how such an infection affected headache type, intensity, and frequency.

Finally, the study did not specify the cutoff date for enrolling patients in the pandemic cohort. Did the pandemic cohort include only patients who visited the center in 2020, or also those from 2021, 2022, and 2023?

Declarations

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Consent for Publication: Not applicable.

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