


Assessment of the COVID-19 Pandemic Associated Sleep Abnormalities in Children: Authors' Reply

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Dear Editor:

We thank Bhambhani and Aggarwal¹ for the attention paid to our recent article about the COVID-19 pandemic effects on school-aged children's sleep-related difficulties and trauma reactions.²

The authors commented on our paper trying to speculate on possible reasons for the high percentage of children with probable sleep disturbances.

They assert that the Child's Sleep Habits Questionnaire, validated for patients between 6 and 12 years old,³ should be performed with parental assistance; in our paper, 31.2% of children did not require assistance from parents for compilation. The observation is correct, and this could be a bias that overestimated the rate of sleep disorders in this age group. However, the autonomous compilation of questionnaires by children was the prerogative of only an older age group among the participants, with a median age of 11 years (range 9-12 years).

In addition, we also share the authors' statement that the prevalence of sleep disorders can be influenced by the age of the patients analyzed and the properties of the questionnaire used. In this regard, in our study we chose to use the Child's Sleep Habits Questionnaire, a validated questionnaire developed by Owens in the United States to assess sleep habits in school-age children.^{3,4}

Furthermore, in agreement with our data—although in a lower percentage and using the Sleep Disturbance Scale for Children—a large Italian questionnaire-based study involving 6210 children aged 0-18 years showed an increase in sleep disturbances during the pandemic: in particular, 69.3% of the patients had more difficulty falling asleep, 30.2% in staying asleep and 18.7% reported an increase in nightmares and/or sleep terrors.⁵

Finally, Bhambhani and Aggarwal underline the limitations of online surveys. In fact, during the compilation of the questionnaires, children and their parents do not have a researcher who can guide them, and their sociocultural level, as well as the current historical moment, could therefore influence their answers. These statements are certainly important, but they do not imply that the answers provided are not reliable. The pandemic has led to the massive spread of online surveys, which are therefore becoming a less unknown tool even for the participants, who are increasingly involved in these studies.

However, the strength of our study was the combined use on the same patients of a questionnaire assessing sleep disorders (ie,

Child's Sleep Habits Questionnaire) and another (the Children's Revised Impact of Event Scale–8) assessing post-traumatic stress disorder, adapted for the current pandemic. We observed a weak-to-moderate positive correlation between the two scores. This suggests that sleep-related difficulties experienced during the COVID-19 outbreak may compound in children and adolescents an increased risk of developing post-traumatic stress disorder.

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Author Contributions

SF collaborated in the draft of the manuscript. AC designed the study and participated in the preparation of the manuscript. IL and AC reviewed and edited all the manuscript

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