The Effects of Confinement on Sleep Quality and Level of Interest in University Students [Response To Letter]

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Dear editor

We are pleased our work has sparked discussion and we would like to thank the opportunity to answer the main questions raised by Zakariya and Low.¹

Concerning the first question raised about to include lifestyle factors as a variable that could play a role in the deterioration of the sleep quality, we agree with Zakariya and Low that these kind of variables would have been interesting to study. We will consider them in future investigations that we will carry out such as assessing daily consumption of caffeine, tobacco or alcohol, as well as other non-legal drugs that can also affect sleep and that students may consume.

Regarding the suggestion to use a more homogeneous sample in terms of course in future studies, we agree that there may be differences in the quality of sleep related to students' academic commitments depending on the year of study. However, we believe it is preferable to increase the sample of participants in each course and control its effect on results, rather than focusing on just one of them.

To control the effect of the course on the results obtained in our research, we carried out two ANOVAs. As the first dependent variable, we used the change score in subjective sleep quality obtained by subtracting the average score obtained at 20 days from that obtained before the start of the confinement (change score 1). As a second dependent variable, we used the sleep quality change score obtained by subtracting the average score obtained at 40 days from that obtained at 20 days (change score 2).

The results showed that there are no statistically significant differences in change scores 1 ($F(3, 71) = 1.932, p = 0.132$) and change scores 2 ($F(3, 71) = 0.865, p = 0.464$) depending on the course (see Table 1). Therefore, we can conclude that, at least in our research, there are no statistically significant differences in the deterioration of sleep quality according to the year of study of each participant.

Finally, in response to the question of why we chose the time interval of 20 and 40 days, instead of considered the reference period of 1 month, it was because we thought it was important to take data in the same conditions of lockdown. In Spain, the government decreed a state of alarm on 14th March, and it was updating the period by 15 days. As time went by, the government was announcing that the confinement conditions would be less restrictive, and the population would be able

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Table 1 Descriptive Statistics of Change Score 1 (20 Days – Before) and Change Score 2 (40 Days – 20 Days)

Course	Change Score 1		Change Score 2	
	M	SD	M	SD
First	0.51	0.83	−0.04	0.50
Second	−0.05	0.33	−0.21	0.49
Third	0.38	0.61	−0.22	0.49
Fourth	0.14	0.46	−0.03	0.44

Abbreviations: M, mean; SD, standard deviation.

to do more things outdoors. For this reason, we decided to anticipate the data collection in order to keep the same conditions.

In short, we agree with the authors' assertions and believe that more studies are needed in confinement situations in order to reach more consistent conclusions regarding their influence on people's sleep.

Disclosure

The authors report no conflicts of interest in this communication.

Reference

1. Zakariya MZ, Low JM. The effects of confinement on sleep quality and level of interest in university students [letter]. *Nat Sci Sleep*. 2020;12:1225–1226. doi:10.2147/NSS.S295981

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