

Medical Students' Perspective on the Effect of Sleep Quality on Academic Performance [Letter]

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Dear editor

We read with great interest the study by Jalali et al¹ with respect to the relationship between sleep quality and academic achievement amongst healthcare students. Given the increasing societal understanding of the effect of sleep deprivation on mental health combined with the intensity of undergraduate training we found this to be a thought stimulating discussion as final year medical students. However, we believe certain factors could be improved to further the impact of this study and potential well-being of undergraduate students.

Firstly, in reference to the results there is little mention of the effects of gender differences in sleep quality despite the one third minority of male participants (33.3%).¹ The systematic review and meta-analysis on the Pittsburgh Sleep Quality Index (PSQI) performed by Mollayeva et al² indicates that sex differences may influence sleep quality, potentially through differences in steroid sex hormones. Therefore in the academic context of this paper, males and females who display moderate to severe PSQI scores could be investigated to determine if gender has any bearing on academic achievement amongst sleep deprived undergraduates.

Whilst the cross-sectional study design of this paper is appreciated as a useful tool for examining correlation, longitudinal studies are necessary to determine the potential for the long-term causal relationship between academic performance and sleep quality.³ In addition, given the strong regional focus of the paper, a longitudinal study design across different locations is a potential avenue to reduce this impact limitation and assess the relationship in dissimilar cultures.

Furthermore, in reference to Figure 1,¹ given the spread of undergraduates amongst varying healthcare disciplines, the study does not explain how academic achievement is assessed or calculated. Moreover, given the likelihood that different disciplines will have diverse GPA components, in future work, we suggest the focus should be on a single set of students at a uniform point in education, in an attempt to reduce the effect of confounding variables such as assessment formats and current semester of study. This will perhaps yield more reliable results going forward.

Given the multifactorial disadvantages of poor sleep quality in regard to mental health, physical well-being, and educational performance there may be a role for academic institutions to educate undergraduate students on the importance of good sleep hygiene.⁴ This can be done through specialized educational support measures such as student pastoral services as detailed by Almojali et al.⁵

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In conclusion, we welcome the opportunity for this discussion, based on the work by Jalali et al¹ in investigating the association between sleep quality and academic performance. However, the causal relationship of the variables in this study could better be explored using longitudinal studies, alongside performing said studies in different locations. As this will determine the generalizability of future results. With our proposed changes to increase the impact of this study, potential focus could shift to the implementation of sleep education measures to produce improved mental health and academic performance outcomes for undergraduate healthcare students.

Disclosure

The authors report no conflicts of interest in this communication.

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