

The influence of adherence to the Mediterranean diet on academic performance is mediated by sleep quality in adolescents

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Aim: This study examined the association of adherence to the Mediterranean diet with academic performance and tested whether this association was mediated by sleep in Spanish adolescents.

Methods: We recruited 269 adolescents (52% boys) aged 13.9 ± 0.3 years from the Deporte, ADOlescencia y Salud study of 38 secondary schools and sport clubs in Castellon, Spain, between February and May 2015. Adherence to the Mediterranean diet was assessed by the KIDMED questionnaire, sleep quality was evaluated with the Pittsburgh Sleep Quality Index test and sleep duration was objectively computed using a wrist-worn accelerometer. Academic performance was assessed through final school grades and a validated test. **Results:** Greater adherence to the Mediterranean diet was associated with higher scores in language, core subjects, grade point average and verbal ability ($p < 0.05$). Sleep quality acted as a significant mediator of the association between adherence to the Mediterranean diet and final grades in maths, language, core subjects and the grade point average. **Conclusion:** Our data show that the influence of adherence to the Mediterranean diet on academic performance was mediated by sleep quality in adolescents.

Education and public health professionals should work together to achieve both improved health status and academic performance in adolescents. ©2018 Foundation Acta Pædiatrica. Published by

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sleep

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