

## **In Teenagers the Everyday Habits Linked to better Grades**

A group of researchers in Spain examined the independent and combined associations of [physical activity](#), sleep, diet, and television viewing with academic performance among adolescents, while accounting for demographic factors and neurodevelopmental disorders (ND).



### **Study**

The researchers analyzed data from the INSchool cohort, an ongoing research program investigating [mental health](#) and learning difficulties among school-aged children in Catalonia, Spain. The data were collected from 974 eighth-grade students in 22 schools between September 2018 and June 2019.

Information about students' sociodemographic backgrounds, lifestyle behaviors, mental health screening results, sleep duration, [diet](#), and television viewing was obtained from parent questionnaires, while adolescents reported their physical activity using the Physical Activity Questionnaire for Adolescents (PAQ-A).

The quality of the diet was evaluated using the Mediterranean Diet Quality Index (KIDMED) questionnaire, and the duration of sleep was assessed with a specific item from the [Sleep Disturbance Scale for Children](#) (SDSC). Academic performance was obtained from official school records and included grades in first language, foreign language, and mathematics.

First-language performance was calculated by averaging Catalan and Spanish grades. Students who screened positive for emotional or behavioral problems and provided consent underwent clinical interviews with their parents to determine whether they met diagnostic criteria for attention-deficit/hyperactivity disorder (ADHD) and [specific learning disorder](#) (SLD).

The relationship between various lifestyle factors and academic performance was assessed using mixed-effects ordinal logistic regression models, adjusting for gender, ethnicity, and [socioeconomic status](#) (SES) and accounting for clustering within schools.

The fully adjusted models also considered all lifestyle behaviors simultaneously. Lifestyle adherence was also evaluated by counting the total number of recommended [healthy behaviors](#) each participant achieved.

## Findings

The study included 974 [eighth-grade students](#) with an average age of 13 years (49.1% males, 50.9% females). A total of 26.9% of the sample had at least one ND, including ADHD, SLD, or both.

Adolescents with ND generally received lower grades in their first language, foreign language, and mathematics than others. They also followed fewer [healthy lifestyle](#) habits, were more likely not to eat three meals daily, and spent more time watching television. However, no statistically significant differences were detected between adolescents with and without ND in adherence to recommendations for physical activity, sleep duration, or the Mediterranean diet.

According to the crude analyses, students who consistently ate three meals daily, followed a Mediterranean diet, and had less than two hours of [television](#) viewing per day were more likely to receive higher grades than other students in all school subjects.

Getting enough sleep, at least eight hours a night, was also linked to better results in mathematics. However, meeting the physical activity recommendations was not significantly associated with grades. Separate analyses also showed that gender, ethnicity, SES, ADHD, and SLD were associated with academic performance alongside [lifestyle factors](#).

After adjusting for [gender](#), ethnicity, SES, ADHD, and SLD and considering all lifestyle behaviors simultaneously, several lifestyle behaviors remained independently associated with academic performance.

Adolescents who consistently consumed three meals per day were significantly more likely to achieve higher grades in [first-language](#) and foreign-language subjects.

Limiting television viewing to fewer than 2 hours a day remained associated with foreign language and mathematics performance, whereas following a [Mediterranean diet](#) and sleeping 8 hours or more continued to be positively associated with success in mathematics. However, physical activity was not independently associated with academic performance in either the crude or adjusted analyses. Higher SES and absence of ADHD and SLD were still related to better grades in all subjects.

In terms of gender differences, females performed better than males in language subjects, and participants classified as native Spanish received higher grades in their first language and [mathematics](#) than those classified as being of foreign origin. The foreign-origin category included students who were not native Spanish speakers or had at least one parent born abroad.

The [cumulative analysis](#) showed a consistent association between meeting more healthy lifestyle recommendations and better academic performance across all three subjects.

Adolescents who followed four or five healthy [lifestyle](#) recommendations were significantly more likely to achieve higher grades in first-language subjects, foreign language, and mathematics than those who met only zero or one recommendation.

Students meeting two or [three recommendations](#) also had higher odds of achieving better foreign-language grades compared with those reporting the lowest level of healthy lifestyle adherence.

## **Conclusion**

The findings showed that healthy lifestyle behaviors, particularly maintaining a Mediterranean diet, eating three regular [meals](#) each day, obtaining sufficient sleep, and limiting television viewing, were independently associated with better performance in specific academic subjects among adolescents, even after accounting for gender, ethnicity, SES, ADHD, SLD, and other lifestyle behaviors.

Meeting more lifestyle recommendations was also associated with better grades across all three academic outcomes, although the study did not establish that the behaviors caused these differences or that their combined effects were greater than their individual associations. These outcomes support the idea of evaluating multi-component school [health programs](#) aimed at promoting healthy behaviors among adolescents.

However, the cross-sectional design means that causality and the direction of the associations cannot be determined. The findings may also have limited applicability outside Central Catalonia because parents or adolescents reported lifestyle behaviors, measurements were collected at different times, and screen time was limited to television viewing rather than smartphones, computers, video games, or [social media](#).

Because the researchers used complete-case analysis, participant numbers varied among measures due to missing data. Residual confounding from factors such as [intelligence](#), treatment status, and other psychiatric disorders also remains possible.

## **Source:**

<https://www.news-medical.net/news/20260729/The-everyday-habits-linked-to-better-grades-in-teenagers.aspx>