

schools adhere more to the Mediterranean diet, while higher level of physical activity and lower FI are significantly associated with better AMD. Parents' educational level in nursery schools ( $p = 0.002$ ) and employment status in nursery schools ( $p = 0.012$ ) and in high schools/ lyceums ( $p = 0.008$ ) were found to modify significantly the studied relationship in the univariate analysis, while school grade ( $p = 0.013$ ) and physical activity ( $p = 0.088$ ) were found to modify the studied relationship in the multivariable analysis.

#### **Conclusions:**

Several demographic, socioeconomic and lifestyle characteristics were significantly associated with students' AMD. Thus, emphasis should be given on the design of special programs to reduce household FI and intervene in the rest characteristics.

#### **Key messages:**

- Researchers and policymakers should consider food insecurity as important risk factor for school-aged children, particularly for those who live in poverty.
- Emphasis should be given on the design of special low-cost programs aiming to reduce food insecurity.

## **Food insecurity and social determinants of students' low adherence to the Mediterranean diet**

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### **Background:**

Despite the fact that the Mediterranean diet is highly beneficiary for people's health, there are many factors which cause disparities in the level of adherence. The aim of the present work was to investigate the effect of household food insecurity (FI) on adherence to the Mediterranean diet (AMD), to explore the participants' characteristics modifying the studied relationship and find the social determinants of students' low adherence to the specific dietary pattern.

### **Methods:**

A cross-sectional study with 140 schools and 4,242 students was conducted in Greece (2017-2018). Especially designed and validated instruments were used to record students' socio-demographic characteristics, household's FI status and students' AMD. Analysis of Variance (ANOVA) and Covariance (ANCOVA) was used to investigate the effect of FI and to identify the significant social determinants of students' AMD, according to students' school grade.

### **Results:**

After adjusting for other characteristics, students whose both parents are born in other countries, spend at most 4 hours/week on TV/electronic games, live in the regions of Peloponnese, Central Macedonia or Attica and attend primary