## **BOOK OF** ABSTRACTS



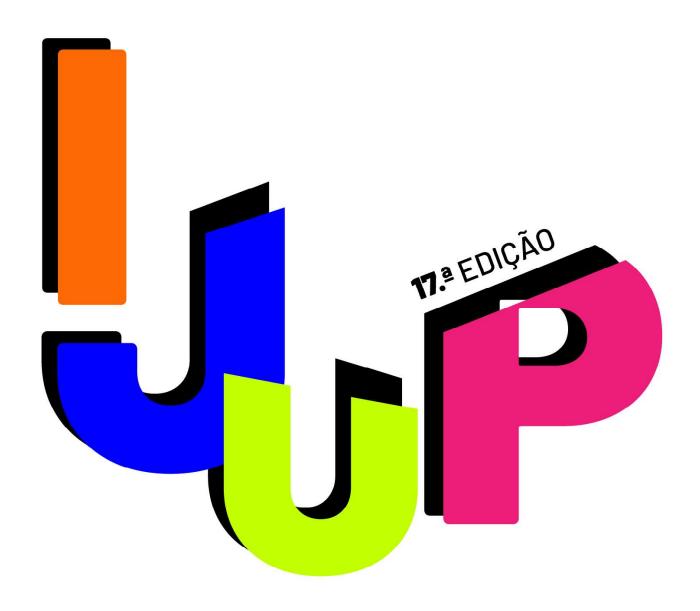
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# YOUNG RESEARCHERS MEETING







### TÍTULO | *TITLE*

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### 21784 | Exploring the Relationship Between 24-Hour Urinary Sodium Excretion and Body Fat Mass Percentage in School-Aged Children: Insights from the ARIA Study

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Background & Aim: Childhood obesity is a complex public health problem responsible for a series of complications that contribute to increased morbidity and premature mortality. Increased sodium intake has been associated with obesity. Although some studies suggest a potential association, the evidence linking sodium intake to obesity, including body fat mass percentage (%), remains limited. Therefore, this study aims to verify whether there is an association between 24-hour urinary sodium excretion and body fat mass %, independent of total energy intake, in a sample of school-aged children from the ARIA 248-13 study. Methods: This cross-sectional analysis included 258 children aged between 7 and 12 years, enrolled in the 3rd and 4th year of 20 public schools across Porto, Portugal. Body fat mass % was assessed using Tanita™ BC-418 Segmental Body Analyzer. Children's total energy intake was estimated on Food Processor® software through a single 24-Hour Recall Questionnaire, and to estimate urinary sodium was used the "gold standard", 24-Hour urinary sodium excretion. The association between, our dependent variable, body fat mass % (>20.90%, median value), and our independent variable, 24-hour sodium excretion (>2507mg, median value), was estimated by binary logistic regression adjusted for sex, age, physical activity, total energy intake, and parental education. Results: There is a significant positive association between higher levels of sodium urinary excretion and higher values of body fat mass %, adjusted for previously referred confounders (aOR=2.26, IC95% 1.28-4.01). Conclusions: Our findings suggest that higher sodium intake is associated with a higher prevalence of body fat mass % among school-aged children, independent of total energy intake.

Keywords: Obesity, Children, Sodium, Energy Intake.

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