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# Relation of BMI and Diet Intake with Attention Span Among Adolescents: A Cross-sectional Study

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## ABSTRACT

**Introduction:** Adolescence (10-19 years) is the phase of dynamic changes, including physical, social and mental. The adolescents' diet intake, Body Mass Index (BMI) vary widely in this age group. The types of diet play a crucial role in our lives as they govern not only our physical health but also our mental and social health.

**Aim:** This study intends to find the relation of dietary intake, BMI and physical activity with attention span of adolescents.

**Materials and Methods:** A cross-sectional community-based study was conducted to investigate the relation between BMI, diet intake, with attention span in adolescents. A total of 100 adolescents from the Faridabad region were recruited for the study. The study participants were randomly selected. The height, weight, 24-hour dietary recall, Global Physical Activity Questionnaire and Stroop test were the tools used for data collection. Descriptive statistics, t-test, and analysis of variance were used by SPSS version 24.

**Results:** The study revealed that the attention span of adolescent girls was 30.05+ 5.29 and 28.09+ 5.15 in the case of boys, but the differences were not statistically significant. The energy, protein, carbohydrates and fat intake computed under diet intake showed that the intake of macronutrients was higher among adolescent girls, with a mean energy intake of 1333.8+155.8, protein intake of 45.9+7.18, carbohydrate intake of 213.2+ 37.4 and fat intake of 26.45+3.75 as compared to boys (1324.5+123.7, 44.12+7.76, 208.6+ 43.9 and 26.05+4.04 respectively), but the difference was not statistically significant. The diet intake had no impact on the attention span of adolescents. Additionally, obesity does not affect the attention span of adolescents.

**Conclusion:** It is concluded that the attention span of adolescents was not associated with diet intake and BMI. However, a larger sample size may be examined to determine the significant association.

**Keywords:** Body mass index, Obesity, Physical activity

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