

Title: Prevalence, inequality and associated factors of overweight/obesity among Bangladeshi adolescents aged 15-19 years

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Abstract: Background: The objective of the current study was to estimate the prevalence and associated factors of overweight/obesity among Bangladeshi adolescents aged 15-19 y and to identify whether wealth-related inequality exists for overweight/obesity among Bangladeshi older adolescents.

Methods: We analyzed publicly available national representative secondary data from the 2019-2020 Bangladesh Adolescent Health and Wellbeing Survey. This cross-sectional survey was carried out among 18 249 adolescents aged 15-19 y regardless of their marital status using a two-stage stratified sampling technique (the data of 9128 eligible adolescents were included in this analysis). The WHO reference population for body mass index-for-age (1+Z score) was considered as overweight/obesity.

Results: We found that girls had significantly ($p<0.05$) higher prevalence of overweight/obesity (11.63%) than boys (8.25%); however, their biological sex as well their age were not significantly associated with higher odds of overweight/obesity. Those who were in their higher grade (grade 11 and higher) in the school and had been exposed to media were more likely (1.67 and 1.39 times, respectively) to be overweight/obesity compared with primary grade (0-5) and those who experienced no media exposure, respectively. Inequality analysis revealed that adolescents belonging to wealthy households had significantly higher rates of overweight/obesity than those in poorer households (concentration index=0.093).

Conclusions: The study exhibited the multifaceted nature of overweight/obesity among Bangladeshi older teenagers, revealing that their school grade, exposure to media content and wealth-related inequality emerged as significant contributing factors. The findings underscore the urgent need for targeted interventions and public health strategies to address the escalating burden of overweight and obesity in this age group.

Key words: BMI; South Asia; inequality; nutrition; school.

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