SUPPLEMENT

Diet quality and ultra-processed food consumption among adolescent girls Aged 12-19 years old

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Abstract

Background: Healthy dietary patterns during adolescence are essential for achieving optimal nutrition, reducing the risk of obesity, and preventing non-communicable diseases (NCDs) in adulthood. However, the abundant availability and frequent consumption of ultra-processed foods (UPFs) and foods that are high in sugars, saturated fats, salt, and poor in essential nutrients contribute to poor diet quality, which may increase the risk of obesity and NCDs. Assessing adolescent diet quality is essential to support evidence-based public health interventions.

Objectives: To investigate the association between GDQS and UPF consumption among school-going adolescent girls aged 12-19 years.

Methods: The study was a cross-sectional survey among adolescent girls aged 12-19 years conducted in West Java and Banten Province (n=600), using multi-stage stratified random sampling. Dietary data were collected using one-day 24-hour dietary recall. Global Diet Quality Score (GDQS) and Nova UPF score, as recommended by Healthy Diets Monitoring Initiative (FAO, UNICEF, and WHO) were calculated.

Results: Over one-third (38.6%) of respondents had poor diet quality (GDQS<15) and only 6.2% of respondents achieved a good diet quality (GDQS≥23). According to GDQS, over 70% of respondents had low intake of vegetables, fruits, and nuts, yet consumed sweets and sugar- sweetened beverages in high amounts. Only 8% of respondents consumed ≥5 UPF food group. The most consumed UPF were instant noodles (33.0%), biscuits (24.0%), and packaged snacks (23.5%). An inverse correlation was found between the GDQS and UPF consumption (rho= – 0.25; 95%CI: –0.32,–0.18; p < 0.001).

Conclusions: Most adolescent girls consumed diet with poor diet quality score. Despite a low proportion of consuming ≥5 food groups, several types of UPF were commonly consumed. These findings suggest that improving healthy diet quality requires reducing UPF consumption and selecting healthier substitutes.

Keywords: Global diet quality score, healthy foods, unhealthy foods, ultra-processed foods, adolescent girls

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