

Evaluating trends in consumption of ultra-processed foods from adolescence to young adulthood, with implications for human health

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Intake of processed food now comprises 67% of the diet of adolescents⁽³⁾. Due to this, there is growing interest in understanding ‘when’ the changes of ultra-processed food consumption are likely to occur between adolescence and early adulthood. Young adults are likely to leave home and encounter environmental or psychosocial factors that influence food intake⁽¹⁾. Therefore, the transition to adulthood is a critical period to lay the foundation for future health⁽²⁾. This study identifies when significant processed food intake changes occur to inform the design of effective interventions. This study collected data on consumption of ultra-processed food intake in 342 adolescents and young adults, aged 14–19 years in Florida, U.S. Trends in consumption of ultra-processed food intake at each age were calculated using a composite PIE score (Processed Intake Evaluation score, scale 0–100) averaged for consumption of soda, sweetened coffee or tea, sports drinks, energy drinks, store-bought smoothies, biscuits, candy, chocolate, frozen desserts, store-bought pastries, chips, protein bars, processed meat, and white bread. The participants’ mean age was 16.6 ± 1.1 years with 53% females (n = 181). The processed food intake (PIE scores) was higher with increasing age - starting from age 14 (34.1), age 15 (37.8), age 16 (46.2), age 17 (41.2) and age 18 (49.3). Next, processed food intake scores were analyzed for controlling factors - gender, race, parents’ education, and size of family. In females, there was a significant increase in processed food intake PIE score starting at age 16 yrs (50.9 vs 36.2 at age 15, $p < 0.01$) whereas in males, PIE score was significantly higher only starting at age 18 yrs (49.3 vs 41.5 at age 17, $p < 0.01$). In larger family size with 2 or more siblings, possibly due to less parental supervision, there was a significant increase in processed food intake PIE score starting at age 16 yrs (52.3 vs 36.2 at age 15, $p < 0.01$) whereas in smaller family size with 0 or 1 sibling PIE score was significantly higher only starting at age 18 yrs (47.2 vs 39.6 at age 17, $p < 0.01$). Understanding when, how, and why processed food intake changes occur over time is critical to develop strategies for intervention, namely to identify the most appropriate time for such measures. Interventions should ideally be initiated before dietary habits are strongly established, at ages when diet is still relatively changeable. Based on the increase in processed food intake identified in this study at age 16 and age 18, there is strong rationale for addressing this trend in design of interventions.

References

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