

Abstract

Higher Ultra-Processed Food (UPF) Intake Is Associated with Poorer Overall Dietary Quality Compared to Lower UPF Intake: Results from a Pilot Study [†]

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Abstract: Background and objectives: Numerous studies link ultra-processed food (UPF) intake to adverse health outcomes. However, data on the relationship between UPF intake and overall dietary quality are scarce. Therefore, the present analysis aimed to explore possible differences in dietary intake between people with a high UPF intake and those with a low one. Methods: A cross-sectional study was conducted between 12/2022 and 4/2023, in which 113 adults (49.56% females, from 18 to 65 years of age) participated. Dietary habits were evaluated in terms of energy, macronutrients, food variety, and UPF intake using 24 h recalls. Food classification as UPFs was based on their processing using the NOVA system. Self-reported demographic and anthropometric characteristics of the participants were also noted. For the present analysis, participants were grouped into those with a lower (LUPFI) and those with a higher UPF intake (HUPFI), using the median (Mdn) value as a cut-off. Differences between groups were examined, using the chi-square test for qualitative variables, and the independent samples t and Mann–Whitney tests for quantitative parametric and non-parametric variables, respectively. The level of statistical significance was set at 5%. Results: The two groups did not statistically significantly differ in age ($p = 0.649$) and BMI ($p = 0.252$). Regarding dietary intake, the LUPFI group consumed less energy (Mdn 1686 vs. 2117 kcal, $p = 0.009$), more protein (18.1 ± 4.2 vs. $15.7 \pm 3.9\%$, $p < 0.001$), fewer carbohydrates from UPF (11.3 ± 6.9 vs. $26.3 \pm 10.0\%$, $p < 0.001$), less fat from UPFs (Mdn 6.4 vs. 24.2%, $p < 0.001$), more food variety (Mdn 11.0 vs. 9.0 foods, $p = 0.009$), less variety of UPFs (Mdn 3.0 vs. 4.0 foods, $p < 0.001$), less total and UPF sweet desserts (Mdn 0.0 vs. 1.0, $p = 0.022$ and $p = 0.033$, respectively), and less UPF cheese (Mdn 0.0 vs. 0.5, $p < 0.001$). Discussion: These preliminary results show that higher UPF consumption is associated with a higher energy intake and poorer diet quality, although it does not necessarily translate into worse choices across all food groups. Further research is needed to verify the present findings and to explore the relationship between UPFs and overall dietary intake more thoroughly, as well as to identify those UPFs that actually contribute to a poorer dietary quality.

Keywords: ultra-processed foods; NOVA system; dietary quality; food groups



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