

Dietary pattern trajectories across adolescence and early adulthood and their associations with childhood and parental factors

ABSTRACT

Background: Although adolescent dietary patterns tend to be of poor quality, it is unclear whether dietary patterns established in adolescence persist into adulthood. **Objectives:** We examined trajectories across adolescence and early adulthood for 2 major dietary patterns and their associations with childhood and parental factors. **Methods:** Using data from the Western Australian Pregnancy Cohort (Raine Study), intakes of 38 food groups were estimated at ages 14, 17, 20 and 22 y in 1414 participants using evaluated FFQs. Using factor analysis, 2 major dietary patterns (healthy and Western) were consistently identified across follow-ups. Sex-specific group-based modeling assessed the variation in individual dietary pattern z scores to identify group trajectories for each pattern between ages 14 and 22 y and to assess their associations with childhood and parental factors. **Results:** Two major trajectory groups were identified for each pattern. Between ages 14 and 22 y, a majority of the cohort (70% males, 73% females) formed a trajectory group with consistently low z scores for the healthy dietary pattern. The remainder had trajectories showing either declining (27% females) or reasonably consistent healthy dietary pattern z scores (30% males). For the Western dietary pattern, the majority formed trajectories with reasonably consistent average scores (79% males, 81% females) or low scores that declined over time. However, 21% of males had a trajectory of steady, marked increases in Western dietary pattern scores over time. A lower maternal education and higher BMI (in kg/m²) were positively associated with consistently lower scores of the healthy dietary pattern. Lower family income, family functioning score, maternal age, and being in a single-parent family were positively related to higher scores of the Western dietary pattern. **Conclusions:** Poor dietary patterns established in adolescence are likely to track into early adulthood, particularly in males. This study highlights the transition between adolescence and early adulthood as a critical period and the populations that could benefit from dietary interventions.

Keyword: Dietary patterns; Tracking; Trajectories; Raine Study; Adolescence; Early adulthood