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Individual-level drivers of food choices and diet quality among adolescents in urban West Africa: Evidence from Accra, Ghana

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Abstract

We sought to investigate the associations between five domains of individual factors (economic, cognitive, aspirational, situational and consumer behaviour) and diet intake of school-age adolescents in Accra, Ghana.

A cross-sectional survey among Junior High School students ($n = 409$, mean age 14.3 years ± 1.28 (sd)) in Accra, Ghana (49.6% male) was conducted. Data on diet intake using the Diet Quality Questionnaire methodology, knowledge, attitude, and practices and socio-economic background characteristics were collected. Diet intake indicators reflect food group diversity, namely, Food Group Diversity Score (FGDS), diversity of unfavourable (NCD Risk), diversity of favourable food groups (NCD Protect) and diet quality as adherence to Global Dietary Recommendations (GDR-Score). We define three diet types as “Strugglers” (low diversity across all food groups), “Champions” (predominantly consuming favourable food groups), or “Challengers” (predominantly consuming unfavourable food groups) based on food group diversity cut-offs. Data were analysed using multivariable linear regressions, with individual characteristics as predictors and diet quality indices as the outcome and multinomial logistic regressions to identify determinants of diet types.

Adjusting for other factors, students’ total budget was positively associated with food group diversity (FGDS, $\beta = 0.12$, 95% CI 0.09, 0.15), but inversely associated with diet quality (GDR-Score; $\beta = -0.07$, 95% CI -0.11, -0.03). Positive attitude towards nutrition and healthy eating was inversely associated with unfavourable diversity (NCD-Risk Score, $\beta = -0.17$, 95% CI -0.31, -0.03). Differences between Champions and Challengers were determined by attitude towards healthy eating (OR = 0.41; 95% CI: 0.17, 0.99) and family practices (OR = 0.48; 95% CI: 0.23, 1.00).

We provided evidence that higher food budgets were associated with higher diet diversity, but not with increased diet quality and that attitude, but not knowledge, was linked to better diet quality. Future studies should focus on the specific contribution of aspirational, situational, and behavioural factors in directing increased diversity towards favourable eating habits.

Keywords: Adolescent nutrition, diet diversity, diet quality, Global Dietary Recommendation (GDR) score, urban nutrition