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Determinants of diet quality among adolescents living in an urban informal settlement in Nairobi, Kenya

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Abstract

The triple burden of malnutrition (TBM) is characterised by the coexistence of undernutrition, overweight/obesity and micronutrient deficiency at both household and community level. In urban informal settlements, adolescents are particularly vulnerable to malnutrition due to their increased nutrient requirements during this critical developmental period, making a high-quality diet imperative to ensure adequate nutrient intake. To promote a high-quality diet among adolescents, it is important to understand the factors associated with diet quality in the context of urban informal settlements.

This cross-sectional analytical study assessed the determinants of diet quality among 551 adolescents aged 12 to 18 years in Viwandani, Nairobi County, Kenya. A structured questionnaire on nutrition knowledge, attitude and sociodemographic factors was applied. The Global Diet Quality Score (GDQS) was calculated using 24-hour dietary recall data categorised into 25 food groups. Data analysis involved t-tests, ANOVA, and linear regression models.

The mean GDQS among adolescents was 11.57 ± 5.33 , indicating low diet quality. The most consumed food group was “Refined grains and baked goods”, reported by 98 % of respondents. Most participants demonstrated positive attitudes towards nutrition (78 %), but only moderate nutrition knowledge (65 %) with limited understanding of nutrient content and links between diet and disease risks. Maternal nutrition knowledge and education level of household heads were not significantly associated with the GDQS. A multiple linear regression model revealed household income as a statistically significant determinant influencing adolescents’ diet quality ($\beta = 0.095$, $p = 0.031$).

In conclusion, this study highlights that income remains an important factor influencing the diet quality of adolescents in urban informal settlements. Furthermore, limited knowledge on specific nutrients and their associated risks suggests a gap in disease prevention knowledge among adolescents that may explain the discrepancies between knowledge, attitudes and diet quality. Consequently, enhancing nutrition education and addressing

socioeconomic challenges is important to improve adolescents' diet quality and tackle the rising TBM in urban informal settlements. Future research should include qualitative methods for more in-depth exploration of dietary behaviours of adolescents in these settings.

Keywords: Adolescents, global diet quality score, kenya, nutrition attitude, nutrition knowledge, sociodemographic factors, urban informal settlements