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General self-efficacy and food literacy predict dietary quality in a changing food environment in Tanzania

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Abstract

Background: Overweight and obesity are rapidly increasing among adults in Tanzania, leading to significant health consequences for public health systems. Current food systems are not fostering resilience against malnutrition because the shift in the food environment to unhealthy, ultra-processed foods is more pronounced than access to nutritious options. Strategies for enhancing dietary quality depend on nutrition education and public health campaigns; however, the prevalence of unhealthy food options, particularly in urban areas, along with conflicting nutrition information from various sources, undermines the effectiveness of these strategies. This highlights the need to assess individual competence in comprehending nutrition information for informed food choices. This study explores general self-efficacy (GSE) and food literacy (FL) factors influencing adult dietary quality in rural and urban Tanzania.

Methodology: The data were collected using a cross-sectional study design involving 694 adults from Tanzania's Ilala (urban) and Mkuranga (rural) districts. Interviews utilised a semi-structured questionnaire and validated tools to gather information on GSE, FL, and dietary intakes. Six indicators of dietary quality, namely consumption of five recommended food groups, diversity scores (DDS), the Minimum Dietary Diversity for Women (MDDW), the Non-Communicable Disease (NCD)-risk score, the NCD-protect score, and the Global Dietary Recommendations score (GDR), were analyzed. The differences in indicators by gender and locality were assessed, and regression models evaluated the relationship between dietary quality and GSE and FL, categorised as limited, sufficient, or excellent.

Results: The prevalence of participants with limited FL levels was 60%. FL scores for the rural population were significantly lower, while GSE was significantly higher in urban and male participants. Urban participants displayed a significantly higher DDS, MDDW, and NCD-risk score (p < 0.05) than rural participants. Sufficient FL of the individual significantly increased DDS, NCD-protect score, GDR-score, and likelihood of consuming foods from the five recommended food groups and meeting MDDW. With excellent FL, DDS, NCD-risk score, and MDDW odds are significantly increased. GSE predicts DDS, while living in urban areas reduces the GDR score but increases the NCD-risk score.

Conclusion: GSE and FL predict dietary quality; integrating them into nutrition intervention strategies will improve food security and nutrition outcomes.

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