Food literacy and nutrition status in rural and urban Tanzania: Exploration of the nexus

FoCo-Active

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INTRODUCTION

- Tanzania is facing the triple burden of malnutrition; coexistence of underweight, overweight/obesity and micronutrient deficiencies (MoHCDGEC, 2019).
- Poor dietary diversity, impacted by changes in food environments, contribute to increased rates of malnutrition.
- People require practical knowledge and skills to improve their dietary behaviors and nutritional status.
- Hence food literacy (FL) is vital to provide skills required for healthy relationship between individuals and food environment thus supporting dietary resilience overtime.
- The link between individual food literacy levels and their corresponding nutritional status has not been assessed in Tanzania.
- This study aimed at examining the food literacy level and nutritional status among adults residing in selected rural and urban areas of Tanzania.

METHODS

- A cross-sectional study involving 697 adults (68% female) was conducted in Mkuranga (rural) and Ilala (urban) districts, Tanzania.

- A FL questionnaire with 23 items and 1-5 point Likert scale from “very easy” to “very difficult” was used to assess individual food literacy (Zwierczyk et al., 2022).
- The weight and height of individuals for estimation of Body Mass Index (BMI) were taken.
- Confirmatory factor analysis (CFA) was applied to test if FL items explain FL construct.
- Internal consistency of FL was estimated using Cronbach’s Alpha at significance level of 0.05 (Beer-Borst et al., 2018).
- FL levels classified as inadequate (0-25), problematic (>25-33), sufficient (>33-42) and excellent (>42-50).

RESULTS

- The CFA test confirms that the latent variable (FL) is explained by its underlying observable indicators (items).
- Generally, problematic level of FL was highest (42.2%), followed by sufficient, inadequate and excellent (Figure 1)
- The study showed significant association in individuals FL levels across gender, residence, education level and BMI (Pearson chi square test $p<0.05$).
- There was significant lower level of food literacy in females than males (t test $p<0.05$).
- People residing in rural areas have significantly three times lower FL level than those residing in urban (t test $p<0.05$).

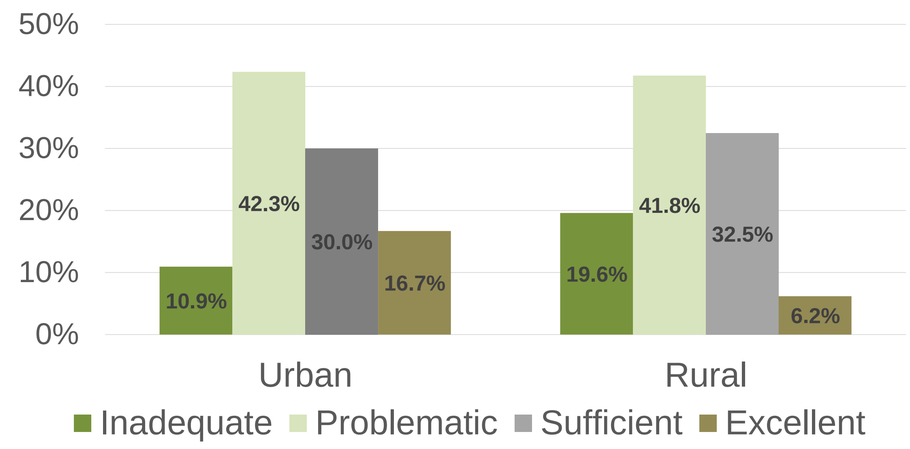

Fig 1. Distribution of food literacy levels in rural and urban Tanzania

- Participants with university level of education have significantly higher FL compared to lower education levels (Tukey’s HSD test $p<0.05$).
- Only 5% of people with low education levels excellent level of FL compared to 76% of those with higher education level
- Problematic level of FL was higher across all BMI categories (Figure 2)

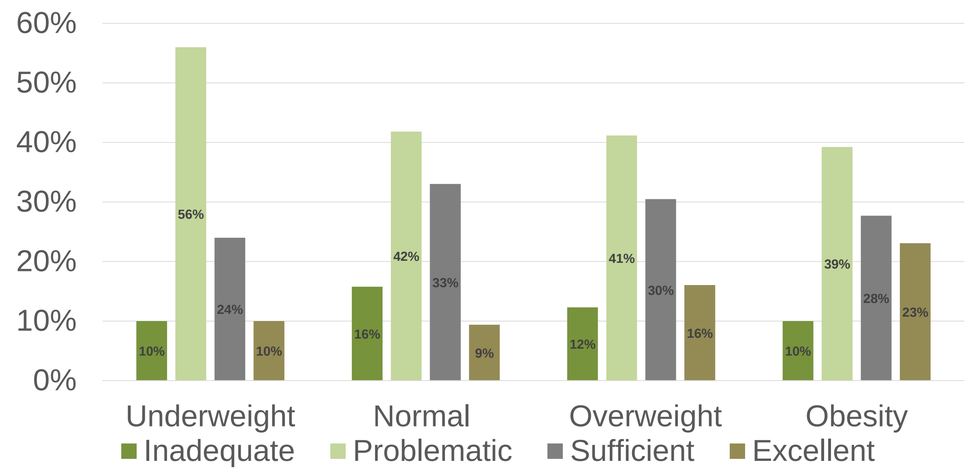

Fig 2. Food literacy level in relationship with nutrition status

- Significant association between individual FL levels and BMI categories (Pearson chi square test $p<0.05$).
- FL level was significantly higher in obese individuals compared to those with normal weight and underweight (Tukey’s HSD test $p<0.05$)
- BMI was significantly higher among the individuals with excellent FL levels compared to those inadequate and sufficient FL (Tukey’s HSD test $p<0.05$).

CONCLUSION

- Higher education and excellent FL level is expected to be associated with healthier lifestyle and better nutritional status. However, this study found the association between individuals with excellent FL and higher BMI. This suggests that, other social, economic and individual factors contribute to increased body weight.
- A tailored FL intervention program can contribute in combination with other intervention to combat the triple burden of malnutrition in Tanzania.

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