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Beyond diet: Assessing the physical activity dimensions to combat malnutrition in Tanzania

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Abstract

The “triple burden of malnutrition” - undernutrition, overnutrition or obesity, and micronutrient deficiency - is one of the growing challenges in sub-Saharan Africa. This nutrition transition is caused by changes in lifestyle and dietary patterns, being influenced by urbanisation, globalisation and economic development. Although the reasons for malnutrition are diverse, several strategies for prevention have been developed. Optimisation strategies for improved nutrition include e.g. dietary diversification and nutrition education measurements; however, healthy food environments and physical activity (PA) promotion are key elements of preventing malnutrition. The transdisciplinary FoCo-Active project aims to modify food consumption and PA behaviour including the implementation of a health literacy programme to combat all forms of malnutrition in rural and urban Tanzania. The aim of this analysis is to assess the physical activity dimension by analysing the level of PA in Tanzania females and males. Within the FoCo-Active project, a cross-sectional study was conducted with a sample size of $n=521$ (372 females, 149 males), age ($M=35.8$, $SD=7.9$ females and $M=39.8$, $SD=10.3$ males) from urban (Dar es Salaam) and 194 (115 females, 79 males), age ($M=38.3$, $SD=10.4$ females and $M=44.8$, $SD=13.6$ males) from rural (Mkuranga). Target groups responded to the Global Physical Activity Questionnaire (GPAQ) to provide information on their PA status. Results indicated that rural participants were involved more hours per week in vigorous-intensity PA at work ($M=24.2$, $SD=14.8$) than the urban participants ($M=14.9$, $SD=17.0$) and less hours per week in moderate-intensity PA ($M=13.5$, $SD=9$ than urban participants ($M=21.5$, $SD=18.8$; $p < 0.001$). Furthermore, findings show that urban participants spent more hours in vigorous-intensity sports, fitness and recreational ($M=5.3$, $SD=7.6$) compared to rural participants ($M=3.2$, $SD=2.6$; $p > 0.005$). Although both groups in the rural and urban areas met the WHO’s PA recommendations (75 [vigorous-intensity] or 150 [moderate-intensity] minutes per week), urban participants spent more time in vigorous-intensity PA within their leisure time than rural participants in Tanzania. The PA environment should be assessed in future studies to identify possible approaches to PA promotion for both groups to combat all forms of malnutrition.

Keywords: Health literacy, malnutrition, physical activity