

### Participatory Video Intervention Increased Critical Nutrition Literacy of Ghanaian Adolescent Girls: A Cluster Randomized Control Trial

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**Objectives:** This study assessed the influence of a participatory video nutrition education intervention on Ghanaian adolescent girls' critical nutrition literacy (CNL), food knowledge, and dietary behaviours.

**Methods:** A 2018–19 cluster randomized control trial (ClinicalTrials.gov NCT03704649) selected 20 schools (10 intervention, 10 control) in one Ghanaian rural district and enrolled 351 girls, 13–16 years of age. All schools received a nutrition curriculum for their girls' clubs. The intervention schools also received two participatory video workshops where adolescents identified the most pressing challenges they faced to getting (i) a balanced diet and (ii) iron-rich foods. The adolescents devised solutions to each challenge and then planned, acted, filmed, and screened an educational video on each topic with their classmates. Participants completed baseline and endline surveys that measured English literacy, nutrition and health literacy, food purchasing habits,

and dietary intake through a food frequency questionnaire. Critical nutrition literacy, the capability to critically analyze and apply nutrition information to influence personal behaviours and environment was the primary outcome. An intent-to-treat analysis assessed the intervention effect on CNL and the secondary outcomes using general linear mixed models with cluster-level random effects (CIETmap 2.2 software).

**Results:** Exposure to the participatory video nutrition education program led to a 4-fold increase in CNL (aOR = 4.39; 95% CI: 2.22, 8.70). There was a significant increase in food knowledge (OR = 6.62; 95% CI: 6.59, 6.66) and in adolescent food purchases for themselves. Exposure to the intervention led to 12-fold increase in intervention participants choosing iron-rich foods (beans, cocoyam leaf, and animal foods) when buying a meal for themselves. Dietary intakes measured with the FFQ showed no change.

**Conclusions:** A participatory video intervention promoted critical nutrition literacy among low literacy adolescents. It improved food knowledge and food choices.

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