



Nutrition Interventions in Northern Ghanaian Schools: A School-Based Programme for Adolescent Boys' Health Enhancement

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Abstract

Nutrition deficiencies are prevalent among adolescent boys in Northern Ghanaian schools, leading to poor health outcomes such as stunted growth and increased susceptibility to infectious diseases. The study will employ a mixed-methods approach, including baseline assessments of nutritional status through anthropometric measurements (e.g., height-for-age Z-score) among the target population, followed by a six-month intervention period involving nutrition education sessions and provision of fortified foods. Data collection will be supplemented by qualitative interviews to gather insights on participant experiences and perceptions. Anthropometric data indicate that baseline mean heights-for-age Z-scores were significantly below normal (<-1 SD), suggesting widespread stunting among adolescent boys in the study area. Participants reported increased awareness of healthy eating practices after intervention sessions, with a notable increase ($p < 0.05$) in consumption of fruits and vegetables compared to pre-intervention levels. The findings underscore the urgent need for comprehensive nutrition education programmes tailored to adolescents' dietary habits and preferences within school settings. Schools should establish regular monitoring systems for student nutritional status, collaborate with local health authorities for resource allocation, and integrate evidence-based nutrition interventions into existing curricula. Treatment effect was estimated with $\text{text}\{\text{logit}\}(\pi) = \beta_0 + \beta_1 X_i$, and uncertainty reported using confidence-interval based inference.

Keywords: *African Geography, School-Based Interventions, Adolescent Health, Nutrition Education, Micronutrient Supplementation, Growth Monitoring, Epidemiology*

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