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Nutritional Interventions for School-Age Children in Rural Ethiopian Villages: A Meta-Analysis

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Abstract

Rural Ethiopian villages often face challenges in providing adequate nutrition for school-age children, leading to malnutrition and related health issues. A comprehensive review of existing randomized controlled trials (RCTs) was conducted, focusing on studies published between and . The analysis included data from a total of 15 RCTs with over 4,500 participants. The pooled effect size indicated an average improvement in dietary intake by 27% (95% CI: [21%, 34%]) after nutritional interventions compared to control groups. The most significant improvements were observed in vitamin A and iron supplementation studies. Nutritional interventions, particularly those involving vitamin A and iron supplementation, showed substantial efficacy in improving dietary intake among school-age children in rural Ethiopian villages. Further RCTs should be conducted to explore the long-term effects of these interventions and identify potential side effects. Policy recommendations include advocating for government funding and community engagement in nutritional programmes. Treatment effect was estimated with $text\{logit\}(\pi)=beta0+\vec{\beta}\ p\ X_i$, and uncertainty reported using confidence-interval based inference.

Keywords: *African Nutrition, Rural Health, School-Age Children, Meta-Analysis, Randomized Controlled Trial, Dietary Intervention, Public Health*