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Nutrition Education and Kitchen Garden Intervention Improves Dietary Diversity among 6–59 Months-Old Children in Kenya

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Abstract

A nutrition education and kitchen garden extension intervention was implemented within the HealthyLAND project in Teso South, Kenya. The objective was to assess change in dietary diversity of children 6–59 months whose mothers participated in nutrition education sessions (NE) or NE plus kitchen garden extension intervention (AGNE). A village list for all non-urban villages from Teso South was collected. The baseline survey targeted 420 children aged 0–59 months and their caregivers selected from 35 randomly selected villages with 12 households targeted per village. Stratified cluster random design was applied on the 35 villages randomised into NE only (n= 11 villages, 132 families), AGNE (12 villages, 142 families) and control (CTRL) (n= 12 villages, 144 families) groups. Community health volunteers (CHVs) undertook eight individual face to face home visits and four group sessions over a period of 4 months for NE. Kitchen garden interventions were carried out by the same CHVs working in collaboration with agriculture extension officers. Chi square and logistic regression analysis was used to measure associations and magnitude of change. Improved dietary diversity was defined as a child aged 6–59 months receiving food from at least four or more food groups out of the WHO child dietary diversity 7-food grouping. This analysis covered 334 respondents among households with children aged 6–59 months at exit survey. There were non-significant differences in baseline minimum dietary diversity by intervention arms; 51.79 % (NE), 51.75 % (AGNE) and 43.52 % (CTRL), ($p = 0.370$). After intervention, there was a significant difference in minimum dietary diversity by intervention arms (n=314); 83.84 % (NE), 84.76 % (AGNE) and 69.09 % (CTRL), ($p = 0.007$). An adjusted logistic regression model showed significant differences in dietary diversity between NE and CTRL (AOR 0.43, 95 % CI 0.22–0.84) but not with AGNE versus NE (AOR 1.07, 95 % CI 0.50–2.28).

Individual nutrition education, and combined nutrition education and kitchen gardens extension interventions had significant effect on child diet quality. Investing in existing agriculture and nutrition staff is a sustainable and feasible approach to improving child nutrition. The study was financially supported by the German Federal Ministry of Food and Agriculture.

Keywords: Child dietary diversity, HealthyLAND, kitchen gardens, nutrition education

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