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Topic: The first 1000 days, infant feeding, and early childhood development

Title: MICRONUTRIENT DEFICIENCIES AND ANTHROPOMETRIC STATUS OF UNDER-FIVE CHILDREN IN OGUN STATE, NIGERIA

Presentation: Poster

Introduction: Micronutrient deficiencies and childhood undernutrition constitute major health concerns in Nigeria; under-five children are mostly affected with adverse consequences leading to increased morbidity and mortality.

Objective: This study assessed the micronutrients and anthropometric status of children aged 12-59 months in Ogun state, Nigeria.

Method: In this cross-sectional study, anthropometric data and blood samples were collected from the 300 randomly selected respondents. Socio-demographic information was obtained using Interviewer-administered questionnaire. Anthropometric indices haemoglobin, serum concentrations of ferritin, iron, zinc, copper and C-reactive protein (CRP) and malaria parasites (*Plasmodium falciparum*) were measured using standard procedures. Data were analysed using descriptive and inferential statistics.

Result: The prevalence of wasting, stunting and underweight were 4.6%, 18.3% and 4.0% respectively. The prevalence of anaemia was 62%; deficiencies of iron, zinc, and copper were 60.0%, 40.0%, and 38.0% respectively. All the children had elevated serum ferritin and CRP values indicative of inflammation and 36.0% tested positive for malaria parasite. Pearson Product Moment Correlation showed that stunting ($r= 0.173$) and underweight ($r= 0.158$) had positive correlation ($p< 0.05$) with mothers occupation, while stunting ($r= 0.259$) also had a positive correlation ($p< 0.01$) with family income. Underweight was significantly related ($p< 0.05$) with serum ferritin ($r= 0.282$). Haemoglobin, ($r= 0.373$, $p< 0.01$) and serum ferritin ($r= 0.351$, $p< 0.05$) were significantly correlated with mothers occupation.

Conclusion: This study found levels of stunting, high prevalence of micronutrient deficiencies, and inflammation among the children. The present study established relationship between family socio-economic status and the children's micronutrient and anthropometric status.