

Proportion of undernutrition and its associated factors among primary school children of government schools in Horana educational zone

Gunasekara TDRG¹, Panamulla EM¹, Premathunga KDNK¹, Madhuwanthi KKVSS¹, Poththapitiya PIS¹, Ekanayake WEMSG¹, Talagala IA²,

¹*Faculty of Medicine, University of Moratuwa*

²*Department of Public Health and Family Medicine, Faculty of Medicine, University of Moratuwa*

Introduction - Undernutrition is a major concern globally and in Sri Lanka, affecting children's growth and development. Key contributing factors include poverty, food insecurity, low maternal education and the recent economic crisis.

Materials and Methods - A descriptive cross-sectional study was conducted using multistage stratified probability proportionate cluster sampling. A self-administered questionnaire was given to parents/guardians after informed written consent. Height and weight of children were measured by investigators using standardized techniques recommend by the World Health Organization (WHO). Nutritional status was assessed using WHO growth standards: thinness (BMI-for-age < -2SD), stunting (height-for-age < -2SD), and underweight (weight-for-age < -2SD). Associations were tested using Chi-square test at p<0.05 significance level.

Results - The study included 478 students (234 males [49%], 244 females [51%]) aged 5-10 years with a 100% response rate; the majority were 8 years old. The prevalence of thinness, stunting and underweight were 35.2%, 28.7% and 24.1% respectively. Thinness was significantly associated with large family size (p=0.006), higher income (p=0.037); stunting with older age (p<0.001), lower income (p=0.041) and children with chronic illnesses (p<0.001); and underweight with older age (p=0.010) and having a disability (p=0.012). No significant associations were found between undernutrition and diet or physical activity.

Discussion - A considerable burden of undernutrition exists among primary school children in Horana educational zone. Therefore, strengthening school meal programs, introducing food subsidies for low-income families, encouraging home gardening, and conducting focused school-based educational programs for parents on the importance of balanced nutrition for children are essential.

Key words - Thinness, stunting, underweight, school children, undernutrition