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Nutritional Challenges among Adolescents in Rural Sri Lanka: Are We Seeing the Tip of an Iceberg?

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Background: Childhood and adolescence are crucial phases in human growth and development, making proper nutrition essential for maintaining good health and overall well-being. However, the recent economic crisis in Sri Lanka has significantly affected family finances, especially among low socio-economic groups, leading to a decline in the nutritional well-being of young individuals.

Objectives: To examine the nutritional health of adolescents residing in selected underprivileged communities in the Central and Uva provinces of Sri Lanka

Methods: A total of 603 secondary-grade students (10-18 years of age) voluntarily participated in this cross-sectional study from rural schools in three education zones (Udunuwara, Walapane, and Welimada) that were selected based on stratified random sampling. Body Mass Index (BMI) of each participant was calculated using weight and height. BMI z-scores were calculated based on age and sex-specific Lambda, Mu, Sigma values according to the guidelines of the World Health Organization. Adhering to the BMI z-score-based body imaging criteria adopted by the Family Health Bureau of the Ministry of Health Sri Lanka, students were identified in five BMI strata: severely thin, thin, healthy-weight, overweight and obese.

Results: Of the sample, 13.3% of boys, and 4.9% of girls were identified with severe thinness, while 19.4% of boys and 12.3% of girls were thin. Accordingly, the prevalence of under-nutrition among boys (32.7%) was significantly high compared to the girls (17.2%) ($p<0.001$). The incidence of overweight and obesity were 7.6% and 1.1% among boys; and 7.4% and 1.8% among girls, respectively.

Conclusions: According to these results, under-nutrition appears to be a considerable health concern among adolescents in the study areas, requiring in-depth investigations with special focus on young children. As longstanding, under-nutrition may lead multiple health complications in the adulthood, prompt interventions are timely needed to ensure pediatric nutritional health in Sri Lanka, prioritizing socioeconomically disadvantaged rural communities.

Keywords: BMI, Pediatric, School students, Sri Lanka, Under-nutrition

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