

COMPARATIVE STUDY ON PREVALENCE OF BMI AMONG PRESCHOOL CHILDREN IN OBESEKARAPURE GN DIVISION AND ERAVUR 3A GN DIVISION

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Childhood under nutrition and over nutrition including underweight, overweight, and obesity have shown a rising trend globally, particularly in developing countries. This study aims to compare the prevalence of Body Mass Index (BMI) among preschool children in two geographic areas: Eravur 3A and Obesekarapure Grama Niladhari (GN) Divisions. A cross-sectional survey was conducted among 100 preschool children aged 2–5 years, selected from randomly chosen preschools in both divisions. Data were collected using a pre-designed and pre-tested interviewer-administered questionnaire. Informed written consent was obtained from the parents or legal guardians of the children. Anthropometric measurements, including height and weight, were taken using standardized procedures. BMI was calculated and categorized according to World Health Organization (WHO) growth standards and Asian BMI classification guidelines, which are more appropriate for the regional context. Also, Ethical consideration was obtained from Ethical Review Committee, Faculty of Indigenous Medicine, University of Colombo (24/307). Out of hundred children from preschools of each division, In the Eravur 3A GN Division, 11 children (11%) were underweighted, 1 child (1%) was overweight, 5 children (5%) were obese and 83 children (83%) were within the normal BMI range. Likewise, In the Obesekarapure GN Division, 10 children (10%) were underweighted, 09 children (9%) were overweight, 09 children (9%) were obese and 72 children (72%) had normal BMI. When analyzed by age group, higher prevalence of overweight and obesity was noted among children aged 4–5 years in the Obesekarapure division. This finding indicates a potential correlation between age, dietary patterns, and physical activity levels. The results highlight a notable difference in BMI distribution between the two divisions, with Obesekarapure showing a higher prevalence of both overweight and obesity. These differences may be attributed to varying socioeconomic, lifestyle, and nutritional factors. Therefore, targeted public health interventions, including nutrition education and lifestyle modification programs, are essential to address early childhood BMI disparities in these regions.

Keywords: Underweight, Overweight, Obesity, BMI, WHO, Preschool children