

ABSTRACT

Nutrition is important for good health of individuals and for the economic growth and development of a country. Undernutrition in childhood is associated with short term as well as long term consequences later in life. If not corrected, it will maintain the vicious cycle of undernutrition and span the generations. Grade one students are important that they would reflect the effect of nutrition related interventions of over the last five years of their childhood and also being the beginners of the new life style as primary students. Thus the present study was designed to describe the prevalence of undernutrition and associated factors among students in grade one in the schools of Medical Officer of Health (MOH) area in Kalutara.

A school based descriptive cross sectional study was carried out in all the government and semi-government Schools in Kalutara MOH area. Multistage cluster sampling was done allocating the clusters according to the probability proportionate to the number of students in each functional type of the schools. The study included 474 grade one students.

A self-administered questionnaire was used to gather socio-demographic information and other related variables on undernutrition. Anthropometric measurements were taken using standardized instruments such as height was measured using a microtoice tape and weight was measured with a digital weighing scale, using standard techniques.

Prevalence of undernutrition was described using the new World Health Organization (WHO) growth references as well as the World Health Organization/National Center for Health Statistics (WHO/NCHS). Recommended Sex and age specific Body Mass Index (BMI), Height for age and Weight for height were used as indicators to assess the undernutrition. Thinness was defined as BMI less than – 2 standard deviations (SD) while stunting was defined as Height for Age less than – 2 SD. Statistical analysis was performed using Statistical Package for Social Sciences (SPSS) version 17.0.

According to the new WHO growth standards prevalence of thinness and stunting in the study population revealed as 20.5% {95% CI: 16.87%-24.13%} and 5.1% (95% CI: 3.12%-7.08%) respectively, while WHO/NCHS references showed 13.5% (95% CI: 10.42%-16.58%) wasting and 4.6% (95% CI: 2.71%-6.49%) stunting.

Higher proportion (31.2%) of participants from families with a monthly income less than Rs. 15,000/= were thin and found to be statistically significant ($p<0.001$), in spite of spending a higher proportion of their income on food. Skipping main meals that is taking less than 3 main meals/day ($p=0.003$), restriction of giving certain foods to children ($p=0.038$), and low Individual Dietary Diversity Score (IDDS) ($p<0.001$) were significantly associated with thinness.

Higher proportion (35.1%) of thinness was observed among the students of the caregivers who do not watch television and this association was found to be statistically significant ($p=0.021$). However the proportion of thin students was higher with the increased duration of time spent on watching television by the caregivers ($p=0.842$).

The proportion (26.8%) of thinness was higher when children were not encouraged in feeding although the difference was not statistically significant.

Stunting was significantly associated with low birth weight ($p=0.014$), prolonged (>6 months) exclusive breast feeding ($p=0.045$) and low IDDS ($p<0.001$).

Although generalizability of the study is limited results revealed one fifth of grade one students were thin (wasted) and five percent were stunted (WHO new Reference). This needs to be considered in planning nutrition programmes for under five children as well as the primary school children in improving their nutrition and make them prepared for second growth spurt in adolescence. Further, the study recommends strengthening the implementation of existing infant and young child feeding and caring guidelines and it identifies the associated factors of undernutrition that would be useful in planning the interventions to address the child malnutrition.

Key words: Undernutrition, food practices