ABSTRACT

Overweight and obesity in childhood are increasing in prevalence. Obesity adversely influences physical fitness and both together increase risk of life-style disorders. The present study was a cross-sectional survey of 3600 children from twelve schools in Mumbai. Nutritional status of children aged 6-9 years from different socioeconomic backgrounds was assessed. Height, weight, skinfold thickness at triceps, biceps, suprailiac and subscapular were measured. BMI and percent body fat were calculated. Dietary and physical activity patterns were studied on 1500 children and Fitness tests-Step test (cardiorespiratory endurance), Sit and Reach (flexibility), Grip strength (muscular strength) were studied on a subsample of 354 children. Association between nutritional status, dietary patterns and physical fitness was examined. Overall, 24.4% children were underweight, 14.7% were overweight and 7.5% were obese. Thus, about one-fifth of children were overweight/obese, regardless of socioeconomic status. Children’s participation in games/sports was limited. Mean time spent on active games was 172 minutes/week. Physical fitness score of all children was below the cut-off of 39, indicating poor physical fitness. Mean score for the Sit and Reach test was at the 25th percentile of AAHPERD standards. Obese children had better PFI and grip strength scores than underweight children who had better scores for flexibility. Underweight children had poor grip strength. Children had a high snack, biscuit intake but poor intake of vegetables/fruits. Snack intake was positively associated with BMI, body fat, PFI, grip strength but negatively associated with flexibility.