

## **Policy Brief**

### **School Based Lifestyle Intervention in School Children**

**Policy implications based on ICMR NTF Project on School based lifestyle intervention in school children in Chandigarh:** A National Taskforce project on “Development of a Health Promotion Model for prevention of noncommunicable disease in school settings” was supported by ICMR with the objective to examine the impact of a multicomponent lifestyle intervention on behavior, anthropometry and biochemical profile of children in a school-based setting. In an earlier community based intervention study in 191 students from different schools were subjected to 12-week lifestyle intervention comprising of life skill sessions, lifestyle diary, physical activity period daily, healthier option in school canteen, etc., followed by post assessment. This lifestyle intervention helped in changing health behavior of the students but no change in anthropometric and biochemical measurements were observed<sup>1</sup>.

Therefore, under ICMR Task Force project, a 20-week lifestyle intervention study was undertaken as a cluster randomized trial where four schools each were randomly selected and allocated to intervention and control arm equally. Of the 462 school children selected, 201 were assigned to the intervention group and 261 belonged to the control group. Children in the intervention arm received a multicomponent lifestyle package. Primary outcome measures included anthropometric measurements (weight, BMI, skinfold thickness and waist and hip circumference), whereas secondary outcomes were biochemical parameters, physical activity and dietary intake. Compared with controls and adjusting for age, sex and clustering within classes, children in the intervention group showed decrease in the weight by -0.08 (-0.15 to -0.00,  $p=0.048$ ) z-score units, waist circumference by -0.14 (-0.25 to -0.03,  $p=0.01$ ) and triceps thickness by -0.35 (-0.47 to -0.22,  $p<0.001$ ) z-score units; however, BMI showed no significant decrease. There was significant reduction in intake of energy, protein and fat but no to minimal reduction in biochemical parameters.

A school-based lifestyle intervention package favorably affected anthropometric (weight, waist circumference and triceps and biceps thickness) and behavioral parameters. With the available evidence from this study, incorporation of at least 20 weeks (~5 months) of health promoting intervention period in each academic year on a long-term basis is recommended so as to bring about a desirable change in behavioral and anthropometric or biochemical parameters of school children and thereby have significant impact on health and well-being of population in future<sup>2</sup>.

**Recommendations and Policy Implications:** *Department of Health Research, ICMR, Ministry of Health and Family Welfare, recommend Ministry of Human Resource Development to introduce School based lifestyle interventions in school curriculum so that lifestyle intervention becomes part and parcel of schools. This is the first of its kind of evidence from school settings in India, which have long been recommended as an excellent health promoting environment for prevention and control of NCDs. Book on health education should be developed for the classes based on this intervention.*

*References:*

1. (Prabhushankar T, Thakur JS et al. Effect of 12-week lifestyle intervention on behavioural, anthropometry and biochemical profile of school children in Chandigarh, India. *J Com Med Health Edu*, 2015;5:5).
2. (Thakur JS et al. Impact of 20 week lifestyle intervention package on anthropometric, biochemical and behavioural characteristics of school children in North India. *J Tropical Pediatrics*, 2016, 0: 1-9).