

Obesity Reduction and Awareness and Screening of Noncommunicable Diseases through Group Education in Children and Adolescents (ORANGE): Methodology Paper (ORANGE-1)

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Abstract

Aim:

Our goal is to estimate the prevalence of obesity, glucose intolerance, hypertension, dyslipidemia, and metabolic syndrome among urban children and adolescents aged 6–19 years and to raise awareness about noncommunicable diseases (NCDs) among school children in Chennai, South India.

Methods:

The Obesity Reduction and Awareness and Screening of Noncommunicable Diseases through Group Education project plans to reach out to children and adolescents using two approaches: the school and the community approach. The school approach aims to reach out to a representative sample of approximately 20,000 urban school children and adolescents, aged 6–19 years, covering 50 schools from all parts of Chennai. Anthropometric measures will include height, weight, waist, body fat, and blood pressure. Data on demographics, family profile, behavioral aspects, physical activity, and food pattern will be obtained by using a validated questionnaire. Awareness about metabolic NCDs like obesity and diabetes will be increased by educating the children and adolescents about healthy lifestyles. Through the community approach, 2000 children and adolescents from randomly selected residential colonies in Chennai will be screened for obesity, glucose intolerance, hypertension, dyslipidemia, and metabolic syndrome.

Expected Outcomes:

Awareness about NCDs will be increased among children and their parents in Chennai. This study will also provide valuable epidemiological data on obesity, glucose intolerance, dyslipidemia, hypertension and metabolic syndrome in children and adolescents in urban India.

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Abbreviations: (BMI) body mass index, (HPS) health-promoting school, (NCD) noncommunicable disease, (ORANGE) Obesity Reduction and Awareness and Screening of Noncommunicable Diseases through Group Education, (WHO) World Health Organization

Keywords: awareness, early onset type 2 diabetes, childhood diabetes, metabolic syndrome, noncommunicable diseases, obesity, school

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