Background: Despite the increasing prevalence of overweight, obesity, and its related comorbidities among children and adolescents over the last two decades there is a paucity of comprehensive studies in obese children in our region. Hence this study was conducted to find out the prevalence of obesity and its risk factors among children, and to estimate the burden of comorbidities among school children in Puducherry.

Methods: 1020 children, in the age group 6-12 years, were selected from three semi-urban schools of Puducherry, after obtaining adequate consents. The children and their parents were interviewed using a structured proforma and subjected to anthropometric measurements. Data regarding their physical activity, duration of sleep and dietary habits were recorded. For those diagnosed as obese, blood pressure was measured, and blood tests were done to screen for certain comorbidities. They were also screened for signs of depression.

Results: The prevalence of obesity and overweight among the study children was found to be 15.1% and 14.5% respectively. Reduced physical activity, increased screen viewing time and increased consumption of junk food were found to be associated in more than 85% of obese children. Comorbid dyslipidemia and hyperglycemia were observed in 40% of obese children whereas hypertension was observed only in 2.4%. Around 65% of the obese children had associated depression. Applying WHR adult standards for the diagnosis of obesity, it was found to have a sensitivity of 69.2% and a specificity of 92.7%.

Conclusion: The prevalence of overweight and obesity among school children in Puducherry has significantly increased reflecting the regional and global trend. The results of our study can be used for planning interventions aimed at reducing the burden of overweight and obesity in this region.