Childhood obesity levels are highest among South Asians

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Credit: St. George's University of London

Childhood obesity levels in UK are highest among South Asian children, according to new research that completely changes the current understanding of the link between ethnicity and weight status in young

people.

The study shows that Body Mass Index (BMI) – the most widely-used measure of obesity – has painted a false picture of childhood obesity levels in different ethnic groups in the UK.

Researchers at St George's, University of London and University College London, funded by the British Heart Foundation and the National Institute of Health Research (NIHR), applied ethnicity-specific BMI adjustments to data from The National Child measurement Programme (NCMP). This programme annually assesses overweight-obesity patterns in children aged 4-5 years and 10-11 years attending state-funded primary schools in England.

Applying the adjustments to the national data published in the *International Journal of Obesity* showed that BMI underestimates obesity levels in South Asian children by around 10 percentage points, and overestimates levels in Black children by around the same amount. Unadjusted BMI measures have suggested that Black children have the highest levels of childhood obesity but it is now clear that South Asian children do.

Mohammed Hudda, lead author and Research Fellow in Medical Statistics at St George's, University of London, said: "Most of us know that BMI has its limitations but the extent of its inaccuracy in children of ethnic minority backgrounds is now becoming more apparent.

"Our results suggest that more than half of all South Asian boys – and two in five girls – were overweight or obese by the time they left primary school. That is extremely worrying.

"After adjusting BMI to allow for ethnicity, we've found extremely high levels of obesity among South Asian children, which were not apparent

using unadjusted BMI.

"Black children – other than older girls – had lower levels of overweight and obesity than previously demonstrated which is a change from the conventional picture."

The authors also say that the findings of this research are of particular concern given the higher risks of type 2 diabetes and cardiovascular diseases in the long-term among UK South Asians from childhood.

They say it is therefore vital to concentrate efforts on the prevention of childhood obesity particularly in those of South Asian origin.

Of about 3.7 million children of compulsory school age in state-funded primary education, around 330,000 are of South Asian ethnic origin and 210,000 of African origin.

Dr Mike Knapton, Associate Medical Director at the British Heart Foundation, said: "This research suggests there are a large number of South Asian and Black children in the UK are being misclassified into incorrect weight categories, and who may be getting inappropriate health advice. Accounting for ethnic differences in body composition is clearly a crucial factor when using BMI categories.

"Accurately identifying children who are overweight or obese is critical in ensuring they and their parents are given the right information and support to reduce the risk of diabetes and heart disease in later life. This is equally important for children who are underweight."

More information: M T Hudda et al. Patterns of childhood body mass index (BMI), overweight and obesity in South Asian and black participants in the English National child measurement programme: Effect of applying BMI adjustments standardizing for ethnic differences

in BMI-body fatness associations, *International Journal of Obesity* (2017). DOI: 10.1038/ijo.2017.272