

Risk factors for obesity may differ for Hispanic and non-Hispanic white babies

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The factors that put children at risk of becoming obese within the first 12 months of their life may differ for Hispanic and non-Hispanic babies. This is a conclusion of a new study in the journal *Pediatric Research*, which is published by Springer Nature. Lead authors, Sahel Hazrati and Farah Khan of the Inova Translational Medicine Institute in the US, investigated factors associated with excess weight in the first year of life in Hispanic versus non-Hispanic white children.

Childhood obesity is a growing health concern worldwide. In recent years instances have nearly tripled, with 17 per cent of young people in the US now classified as obese. Previous studies have revealed that Hispanic [children](#) are disproportionately affected. According to a recent study, 15.6 per cent of Hispanic children aged between two and five years are obese, compared to 5.2 per cent of non-Hispanic white children of the same age.

The rate at which babies gain weight in the first few months after birth is often linked to their chances of being obese for the rest of their lives. However not enough is known about which factors might lead babies to be overweight by their first birthday.

To investigate how these factors may differ between Hispanic and non-Hispanic white families, Hazrati, Khan and their colleagues analyzed data contained in the Inova study called "The First 1000 Days of Life and Beyond". Information was extracted from 1009 one-year-old children, 302 (30.0 per cent) of whom were Hispanic and 707 (70 per

cent) were non-Hispanic white children. Genetic data was available for 543 of the 1009 children included in the study and there was a high agreement rate between ancestry [genetic data](#) and reported ethnicity. The researchers gathered information about babies and their parents, whether they were breastfed and how soon they were introduced to solid foods and fruit juices from survey data, questionnaires and medical records.

Three in every ten (30.1 per cent) of Hispanic [babies](#) were found to be overweight aged 12 months, compared to just over one in every ten (13.6 per cent) non-Hispanic white children.

"The rate of [excess weight](#) in the Hispanic population was strikingly higher in this cohort, even at the very young age of 12 months," states Hazrati.

Interestingly, higher father BMI and higher maternal weight gain during pregnancy was associated with excess weight in non-Hispanic white children but not in Hispanic children. On the other hand, lower maternal education was associated with excess weight in the Hispanic children.

Although various social and cultural factors were found to have varying influence on the families in the different ethnic groups, in combination these did not fully explain the marked differences in [weight](#) gain between Hispanic and non-Hispanic white children. Hazrati suggests that these findings might point to an underlying genetic predisposition and epigenetic influences towards obesity in different ethnicities.

"As there are so many different factors influencing the development of obesity in young children, health authorities should consider developing personalized guidelines targeted to different populations in an effort to stem overall obesity in the US population," explains Khan.

More information: Sahel Hazrati et al, Clinical and social factors

associated with excess weight Hispanic and non-Hispanic White children, *Pediatric Research* (2019). [DOI: 10.1038/s41390-018-0264-9](https://doi.org/10.1038/s41390-018-0264-9)

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