Is maternal education associated with childhood overweight risk? Trends between 2010 and 2013- the COSI Portugal study

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Introduction

Considerable inequalities in overweight and obesity are evident among European children. Particularly in Portugal, a country with one of the highest prevalence of childhood obesity, understanding the most relevant socio-economic factors such as maternal education, is crucial to promote children’s immediate health and well-being throughout life course.

Objective

The aim of this study was to evaluate the association between maternal education and childhood overweight risk.

Methodology

Socioeconomic indicators were analysed using nationally representative data from Portuguese children and their families, collected during the 2nd (2010) and 3rd (2013) round of COSI Portugal (Childhood Obesity Surveillance Initiative/WHO Europe). Nutritional status of 3637 (2010) and 5393 (2013) children aged 6-9 years old was accessed using WHO criteria. Low education level considered secondary school or below and high education level considered graduate and post-graduate school.

Results

More than 70% of the mothers in the two COSI-Portugal rounds had low education.

- It was observed a significantly increase (p<0,01) between the 2nd (2010) and 3rd round (2013) in high education and a decrease (p=0,01) in low education (79,1%: 2010 to 74,6%: 2013) in every regions except for Algarve Region (Figure 1).

- High educated mothers were more frequent in Madeira (43,1%) and Lisboa e Vale do Tejo (30,8%) regions (Figure 1).

- In 2010, Norte region had the highest frequency of mothers with low education. All of the regions decreased this frequency in average to half, except for Algarve, in 2013, showing a significant improvement on the level of education. Madeira Region was the region in 2010 and 2013 with mothers with the highest education (Table 1).

- Maternal low education showed a positive association with childhood overweight (including obesity) (OR=1,32; IC: 1,14-1,53) (Table 2).

- Trends between 2010 and 2013 round of COSI Portugal (Childhood Obesity Surveillance Initiative/WHO Europe) are detailed in Table 1.

Conclusion

Although it was observed a positive trend regarding maternal education level, between 2010 and 2013, the majority of the Portuguese mothers had low education and this was positively associated with a greater risk of overweight children. These results support that further intervention is needed on low socio-economic families.

References