

The 13th European Nutrition Conference, FENS 2019, was held at the Dublin Convention Centre, 15–18 October 2019

Parental role modelling and fruits and vegetables intake in European preschoolers: ToyBox-study

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Abstract

Introduction: Childhood obesity is rising in all countries. Dietary habits are modifiable factors which develop early in life. During growth, several factors, such as peer- influence and food availability, determine the development of food preferences and eating behaviour. Parents play also a key role model by influencing their own food intake.

Objectives: The purpose of this study was to assess the influence of parental role modelling, as predictor of fruits and vegetables intake in European pre-schoolers.

Methods: The present study included a sample of 6633 preschool children (51.9% boys) from six European centres (Belgium, Bulgaria, Germany, Greece, Poland and Spain), 3.5 to 5.5 years of age, participating in the ToyBox-study. Data on parental role modelling related with their own fruits and vegetables intake (portions/day) and children's fruits and vegetables intake (portions/day) were collected via standardized proxy-administered questionnaires. Linear regression model was used to assess this association. The adjusted model included socioeconomic status and weight status.

Results: In the unadjusted model, boys whose parents consumed fruits, showed a mean intake of 0.09 (95% CI: 0.08–0.11; $p \leq 0.001$) portions of fruits more than the boys whose parents did not consume fruits. Also, girls whose parents consumed fruits, had intake of 0.10 (95% CI: 0.08–0.12; $p \leq 0.001$) portions of fruits more than the girls whose parents did not consume fruits.

Moreover, boys whose parents consumed vegetables, showed a mean intake of 0.09 (95% CI: 0.07–0.11; $p \leq 0.001$) portions of vegetables more than the boys whose parents did not consume vegetables. Also, girls whose parents consumed fruits, had intake of 0.11 (95% CI: 0.09–0.13; $p \leq 0.001$) portions of vegetables more than the girls whose parents did not consume vegetables.

Finally, parental role related with fruits consumption explained 19.3% of fruits intake in European pre-schoolers and the 17.8% of vegetables intake in boys and 21.9% of vegetable intake in girls taking into consideration the potential effect of socioeconomic status of the family and the weight status of the children.

Conclusions: Parental role model of fruit intake has moderate effect on the pre-schooler's dietary intake. However, home environment characteristics such as family rules or availability and accessibility of foods should be considered as potential factors related to food intake in pre-schoolers.

Conflict of Interest

There is no conflict of interest