

Short Communication

Risk Of Overweight And Dietary Practices In Portuguese Preschoolers.

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Abstract

History of Articles In 4349 children ages 3 to 5, the association between dietary intake and overweight risk was evaluated. Eating and being inactive On July 8, 2017, behaviors were evaluated using a questionnaire. The usage of logistic regressions was made. Adolescents who drank soft drinks on a daily basis had a 1.52-fold increased risk of obesity and a 72% increased risk of being labeled overweight.

Keywords: Overweight public health diet.

INTRODUCTION

A significant and complex public health concern is childhood obesity. Potential causes of the rising incidence of obesity include the intake of sweetened beverages, such as typical soft drinks, as well as sugary snacks and candies [1,2]. Little study has been done on preschoolers, despite the fact that school-aged children and adolescents have a number of risk factors for consuming the aforementioned nutritious items [1,3]. Epidemiological studies that link food intake to obesity are actually typically conducted in populations that are exposed to a Western dietary pattern of intake, which is defined by a high consumption of red meat, fat, refined carbohydrates, sugary desserts, and high-sugar beverages [4,5]. None of the aforementioned research was conducted in a Mediterranean nation. Given that the highest frequency of overweight and obesity in children comes from Southern European countries, this information thus gains more insight. Given the aforementioned patterns, the current study sought to investigate the associations between dietary consumption and the risk of overweight in a sample of preschool-aged Portuguese children.

MATERIAL AND METHODS

Participants

A cross-sectional study that was undertaken at random in Portugal was called the Portuguese Prevalence Study of Obesity in Childhood (PPSOC). You can find information about response rates and sampling elsewhere [6]. 4.349

preschoolers between the ages of three and five were included in the current analysis. PPSOC received ethical approval from the Portuguese Commission for Data Protection. Participants provided signed informed consent prior to data collection, and parents or guardians provided informed consent.

Anthropometry

Wearing t-shirts and shorts, participants had their height and weight measured in the morning by two qualified technicians at the school using a portable Seca 217 stadiometer and a portable Seca 770 scale to the nearest 0.1 cm and 0.1 kg, respectively. Cut-off points adjusted for age and sex were used to compute and categorize body mass index (BMI, kg/m²) [7]. Two weight-status groups—normal weight and overweight/obese—were created from the sample.

Food Intake

The semi-quantitative Food Frequency Questionnaire (FFQ) was used to gauge the children's nutritional consumption. Each data set included a sociodemographic questionnaire and an FFQ about the children's food intake, which were to be completed by their parents or tutors (who are mostly in charge of their daily food intake). A semi-quantitative FFQ of the previous 12 months including eighty-two food or beverage categories and a frequency section with nine possible answers ranging from never to six or more times/day was used to record dietary intake. It was created by Lopes and colleagues [8,9] and modified by adding a range of typical Portuguese foods for kids.

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Sedentary Behaviour (Sb)

Based on watching TV, screen time served as an indicator of SB. Using the proxy-report tool, as in earlier pediatric epidemiological research [10,11], the amount of time spent watching TV was calculated and reported as minutes per day.

Parental Education

A stand-in for socioeconomic position was the educational background of the mothers and fathers. It was modeled after the Portuguese educational system, which included (a) sub-secondary education for those aged 9 or under, (2) secondary school for those aged 10 to 12, and (3) higher education. The following were the definitions of the three educational levels: 1 denoted low education, 2 middle education, and 3 high education. The Portuguese environment has employed similar processes [12].

Statistical Analysis

The Kolmogorov-Smirnov test was used to confirm the aforementioned variables' normality of distribution before analysis began. By adjusting for the possibly confounding effects of age, sex, time spent engaging in sedentary behaviors (such as watching TV), and mother and father education, logistic regression analysis was used to determine associations between weight status and the food intake examined items. The only predictor of a child's overweight or obesity in the minimum adjusted model (Model 1) was each food item. We then included sex and chronological age as possible confounders (Model 2). Sedentary time, or watching TV, was included as a possible confounding factor in Model 3. Lastly, each parent's educational background was included as a possible confounding variable (Model 4).

Using the complex samples generalized linear models (CSGLM) technique, results were obtained with robust standard errors that take into consideration participant clustering by school. Utilizing SPSS 15.0 (SPSS Inc., Chicago, Illinois, USA), a significance threshold of 5% was set.

RESULTS

The sample's sex-stratified characteristics are compiled. About 73% of girls and 27% of boys were classified as normal weight and overweight, respectively, based on the BMI. The equivalent percentages for males were 82% and 18%. Just 24% of those kids eat veggies every day, whereas 36% of both boys and girls eat soup every day. After adjusting for the potentially confounding effects of age, sex, time spent engaging in sedentary behaviors (such as watching TV), and mother and father education, associations between weight status and the food intake evaluated items are shown. Children who regularly drank soft drinks were 1.52 times more likely to be categorized as overweight or obese than

their classmates who did not regularly drink those beverages, even after adjusting for the previously described confounding factors. Additionally, the final regression model revealed that children who routinely ate chocolate had a 72% higher chance of being labeled as overweight or obese.

DISCUSSION

The independent contributions of dietary intake items to the risk of overweight and obesity in Portuguese children have not been thoroughly evaluated, especially at the preschool age when data collection is challenging. For the first time, an epidemiological study using a representative sample of preschoolers from a Mediterranean nation found a positive correlation between the risk of overweight or obesity and the daily use of soft drinks by children ages three to five. After controlling for a number of potential confounding variables, this association remained unchanged and was in line with prior research [13] conducted on kids that revealed a higher daily intake of sugary drinks was linked to a worse weight profile in kids. The fact that foods and drinks high in sugar specifically accounted for a larger portion of energy intake is actually concerning. Regular drinking of soft drinks has been shown to significantly raise the risk of acquiring chronic diseases and cause weight gain in the majority of epidemiological research [14]. In addition, consuming a lot of added sugars is positively linked to several factors that are known to raise the risk of CVD in young people [15] and may raise the chance of eating a diet that is nutritionally deficient. It's noteworthy that the current study found a favorable correlation between children aged 3 to 5's daily chocolate consumption and their BMI. These dietary practices may encourage positive energy balance, which raises the chance of becoming overweight and obese, which is concerning for the prevention of childhood obesity. This raises concerns regarding the prevention of childhood obesity since certain dietary practices may encourage a healthy energy balance, which raises the likelihood of becoming overweight or obese. However, recent epidemiological research has also highlighted that children who live in neighborhoods with more fast food options and fewer fruits and vegetables may be more likely to become obese during their preschool years [4]. Since over 20% of the children in this study are overweight or obese, this high number suggests that nutritional interventions for Portuguese preschoolers are urgently needed. These interventions include school-based education programs, parent education, and management of the contents of school vending machines. The study's main advantages include its sizable preschooler sample and the range of characteristics examined in those Southern European participants who had high rates of overweight. However, there are certain limitations that should be acknowledged as well. To start,

because this study is cross-sectional in nature, it is not able to draw conclusions about casual relationships. Furthermore, because the parents collected the data, there may have been bias because the parents were unaware of the eating habits of their children when they were not at home, such as at school.

CONCLUSION

Overweight and obesity in preschool-aged children were independently and favorably correlated with regular use of chocolate and sugary beverages. Health experts may use these data to support laws that limit sugar in order to promote a healthier diet.

REFERENCES

1. Grimes CA, Wright JD, Liu K, Nowson CA, Loria CM. Dietary sodium intake is associated with total fluid and sugar-sweetened beverage consumption in US children and adolescents aged 2–18 y: NHANES 2005–2008. *Am J Clin Nutr* 2013;98;189–96.
2. Malik VS, Schulze MB, Hu FB. Intake of sugar-sweetened beverages and weight gain: a systematic review. *Am J Clin Nutr* 2006;84;274–88.
3. Valente H, Teixeira V, Padrao P, Bessa M, Cordeiro T, Moreira A, et al. Sugar-sweetened beverage intake and overweight in children from a Mediterranean country. *Public Health Nutr* 2011;14;127–32.
4. Kepper M, Tseng TS, Volaufova J, Scribner R, Nuss H, Sothorn M. Pre-school obesity is inversely associated with vegetable intake, grocery stores and outdoor play. *Pediatr Obes* 2016;11;e6–e8.
5. Dubois L, Farmer A, Girard M, Peterson K. Social factors and television use during meals and snacks is associated with higher BMI among pre-school children. *Public Health Nutr* 2008;11;1267–79.
6. Machado-Rodrigues AM, Santana A, Gama A, Mourao I, Nogueira H, Rosado V, et al. Parental perceptions of neighborhood environments, BMI, and active behaviors in girls aged 7–9 years. *Am J Hum Biol* 2014;26;670–5.