

Peer Review Report

Review Report on Changes in obesity prevalence attributable to ultra-processed food consumption in Brazil between 2002 and 2009.

Original Article, Int J Public Health

Reviewer: Carla Enes

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EVALUATION

Q 1 Please provide your detailed review report to the authors. The editors prefer to receive your review structured in major and minor comments. Please consider in your review the methods (statistical methods valid and correctly applied (e.g. sample size, choice of test), is the study replicable based on the method description?), results, data interpretation and references. If there are any objective errors, or if the conclusions are not supported, you should detail your concerns.

Dear authors:

The study aimed to quantify the impact of temporal changes in the consumption of ultra-processed foods on obesity trends in Brazil between 2002–2009. The topic addressed in the study is extremely current and relevant to the field of public health. The study used two important nationally representative databases. It brings unprecedented results regarding the real effect of the increased consumption of ultra-processed foods on the increase in obesity in the period evaluated. The article is well written, clear and presents in detail the procedures adopted for its realization. The introduction makes clear the gap that the results found fill in the literature. The authors also present in the discussion the possible ways/solutions to reverse the impact of ultra-processed foods on the increase in obesity, indicating the implementation of fiscal public policies that can reduce the consumption of these foods, making it clear that individual measures are insufficient to solve the problem of the advance of obesity. Thus, I recommend the publication of the article after clarification of the questions presented below

Minor comments:

Methods:

- 1) Anthropometric assessment was performed on a subsample in both studies and not on all individuals who participated in the POF study. This is not clear in the methods. It is important to present the number of the subsample in which the weight and height assessment was performed
- 2) In the case of information on the acquisition of food and beverages that were transformed into calories, was any exclusion made for situations with very high energy values (outliers)? Because the acquisition information may favor distorted measures, if the household had a very unusual week, for example with parties.
- 3) Line 118–126: I suggest including this part in the introduction when talking about ultra-processed foods, because in fact this definition is already present in the NOVA classification, and the authors have already mentioned in the methods that they used this classification to categorize foods.

Discussion

- 4) Even though out-of-home food purchase represents a smaller percentage of everything purchased for consumption, and even though the percentage of out-of-home spending was included as a covariate in the regression model, it is important to emphasize that food purchased for consumption out of the home often belong to the group of ultra-processed products such as soft drinks, artificial juices, cookies, ready-to-eat preparations.

Q 2 Please summarize the main findings of the study.

In the analyzed period there was an increase in the obesity prevalence and in contribution of ultra-processed foods to total energy consumption. The study study demonstrated that the increase in the consumption of ultra-processed foods in the interval of 7 years (2002–2009) was responsible for more than a fourth of the increase in the prevalence of obesity in the same period.

Q 3 Please highlight the limitations and strengths.

Limitations: the study considers the purchase of food for consumption at home, not including data on food purchased for consumption outside the home. The information used concerns the acquisition of food and not the actual consumption.

Strengths: the study uses data from a national representative survey, favoring the external validity of the results. Regression models included possible confounding variables. It is the first study in Brazil that proposes the calculation of the fraction attributed to the consumption of ultra-processed products to the increase in obesity in the country.

PLEASE COMMENT

Q 4 Is the title appropriate, concise, attractive?

Yes

Q 5 Are the keywords appropriate?

Yes

Q 6 Is the English language of sufficient quality?

Yes

Q 7 Is the quality of the figures and tables satisfactory?

Yes.

Q 8 Does the reference list cover the relevant literature adequately and in an unbiased manner?)

Yes

QUALITY ASSESSMENT

Q 9 Originality



Q 10 Rigor



Q 11 Significance to the field



Q 12 Interest to a general audience



Q 13 Quality of the writing



Q 14 Overall scientific quality of the study



REVISION LEVEL

Q 15 Please take a decision based on your comments:

Minor revisions.