

Review of: "Prevalence of excess sodium intake and main food sources in adults from the 2017-2018 Brazilian National Dietary Survey"

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INITIAL CONSIDERATIONS

I will follow a roadmap based on the one proposed by the journal Healthcare, by publisher Elsevier (<https://www.journals.elsevier.com/healthcare-the-journal-of-delivery-science-and-innovation/policies/guidelines-for-reviewers>). The considerations made are categorized according to the sections: Title; Abstract; Introduction; Method; and Results/Discussion/Conclusion.

1 TITLE

The title clearly describes the article. However, I tend to believe that "Prevalence of excess sodium intake and main dietary sources of sodium" would be better, despite the repeated words.

The epidemiological concept of prevalence is properly brought up. Mentioning "prevalence", we use a term that designates the proportion of an event in a given population and period. Some may say that this term should be applied exclusively to represent only the proportion of diseases and ailments; however, the literature diverges on this issue. While distinguished authors define the term as "the relationship between the number of known cases of a given disease and the population of origin of the cases" [1]; others mention that this measure refers to the occurrence of any type of health condition, exposure or other health-related factor [2] – including, therefore, excessive sodium consumption.

The expression "excessive sodium consumption" states the risk factor that will be studied, which will occur through a valid indicator of epidemiological relevance. The "excess consumption of sodium" has been used in Brazil in recent decades, which ensures comparability between territorial aggregates and the monitoring of historical series.

However, the term "major dietary sources" seems a bit loose, not intuitively referring to "sodium sources". I suggest substituting "major dietary sources of sodium". I understand that the word "sodium" can sound repetitive, so I leave it to the authors to do as they prefer.

Finally, "adults of the Brazilian National Dietary Survey", at once, is enough to delimit essential elements for a title: sample properties, territorial scope of data collection and period of the survey.

2 ABSTRACT

The abstract reflects the content of the article, being properly structured. It starts with the idea of the public health problem represented by excessive sodium consumption. Then the objective is presented: “update sodium intake estimates”. Here, I miss an element highlighted in the title: the “dietary sources of sodium”. I believe that this point deserves to appear as an element of the objective. Regarding the method, I understand that this analysis takes into account the sample design, making inferences related to the entire national population. Even so, I believe that inserting the number of individuals included is appropriate ($n=28,153$), in order to ensure that the reader, if not used to this kind of research, can better assess the survey carried out by the Brazilian Institute of Geography and Statistics. (IBGE). The results and conclusion of the abstract are appropriate.

3 INTRODUCTION

The introduction accurately describes what the author hopes to achieve, making it clear which problem is being investigated: high sodium consumption. In the first paragraph, it provides context on the public health problem on a global scale. The second paragraph presents measures taken by health authorities and scientific societies in order to mitigate this issue at a global level. Brazil is mentioned for the first time at the beginning of the third paragraph. The authors refer to strategic action plans and the previous prevalence of sodium consumption, possibly in order to present a national panorama of this issue. The objectives are presented properly, although they deserve to be harmonized with the objective presented in the abstract.

5 METHOD

The authors explain how the data were collected. More details can be viewed by accessing the cited reference: an official publication rich in details, published by the IBGE. The design is adequate to answer the research question, relying on descriptive and inferential statistics, both being worked with the help of modules to take into account the sample design of the survey.

There is enough information for the research to be replicated, including the fact that it was carried out with open, freely accessible data. The article identifies the procedures followed, being significantly ordered. The method subsections, despite not being presented in a conventional way, sufficiently met the demands of the Strengthening the Reporting of Observational Studies in Epidemiology Nutritional Epidemiology (STROBE-nut): (a) study design, (b) scenario, (c) participants, (d) variables, (e) study size, (f) data sources, and (g) statistical methods. Biases are not mentioned, but they are mentioned in the Discussion, with emphasis on the methods used to assess food consumption.

Sampling was appropriate, conducted by the IBGE. Equipment and materials were adequately described, with emphasis on the 24-hour food recall and the Brazilian Food Insecurity Scale (EBIA). The article makes clear what type of data is recorded, describing the measurements precisely.

6 RESULTS / DISCUSSION / CONCLUSION

Results are presented clearly and in a logical sequence. The analysis conducted was appropriate and statistics appear correct, despite typographical errors at a 95% confidence interval: “was 2432 mg per day (95%CI: 19023074)”. Correctly, the interpretation of results was not included in the Results section. In the Discussion, the claims are supported by the results, which appear reasonable. The authors indicate how the results relate to previous research. The Conclusion deserves some guidelines, pointing to the future of research in this field.

FINAL OPINION

The work is relevant and innovative, bringing up-to-date information about excessive sodium consumption in Brazil, a risk factor whose relationship with Chronic Noncommunicable Diseases has been studied for a long time. It does so through a comprehensive and understandable indicator, which was presented according to different population strata. By listing the main sources of sodium in the Brazilian diet, the study raises points of intervention and debate about the extent and purpose of food processing.

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