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## EVALUATION OF CONFLICTS OF FINANCIAL INTEREST IN PUBLICATIONS ON THE CONSUMPTION OF HIGH INTENSITY SWEETENERS AND BODY WEIGHT CHANGES: A SYSTEMATIC REVIEW

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### INTRODUCTION

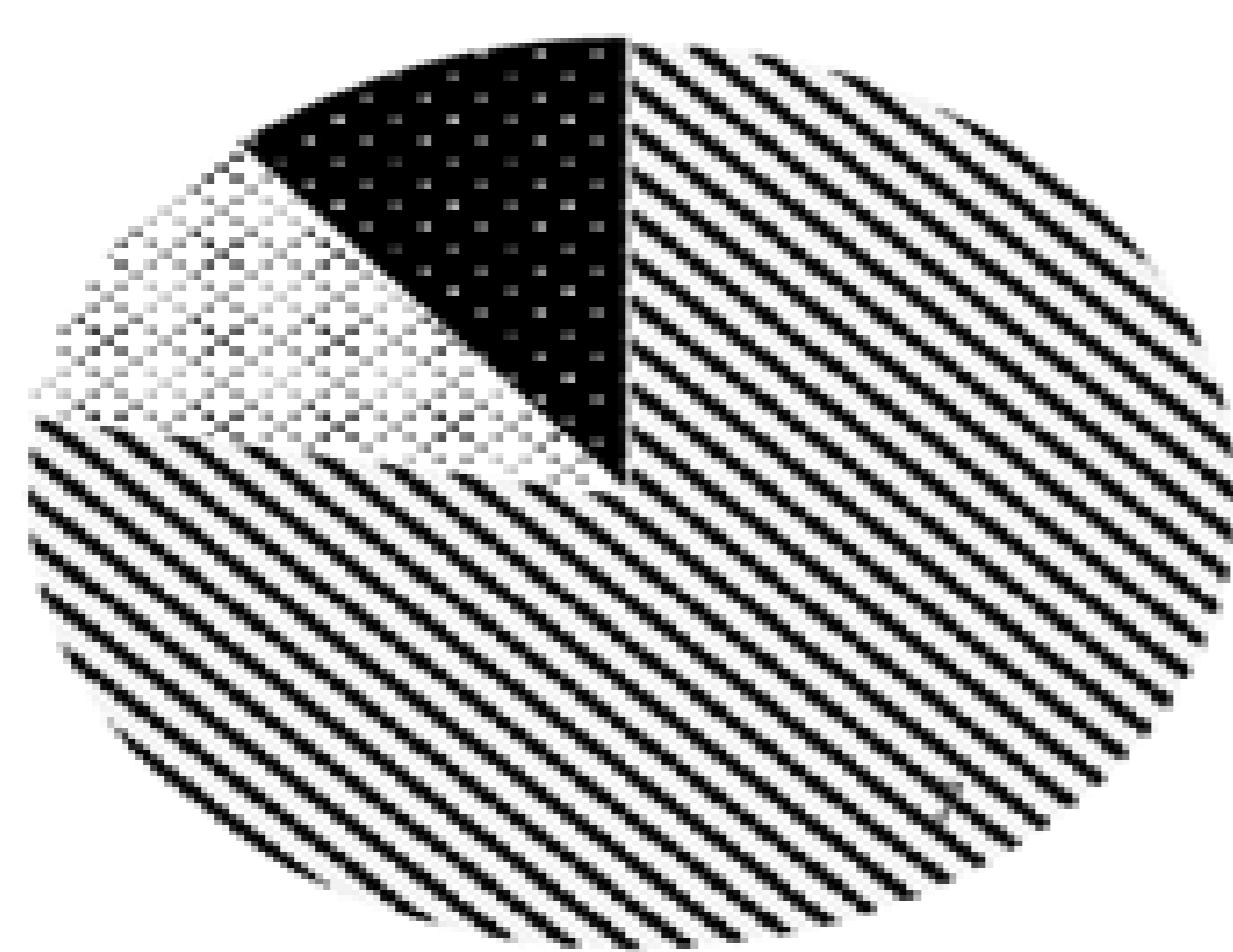
The search for new sweetener alternatives has increased substantially in recent decades, as the number of diseases related to excessive sugar consumption became a public health concern. Although there is no consensus, there may be a direct association between consumption of artificial sweeteners and changes on body weight. The present study aims to evaluate potential industry financial conflicts of interest in publications on the relationship of high intensity sweetener consumption and changes on body weight in observational and intervention studies.

### METHODS

A systematic review of the Medline, Embase, Cochrane, Scopus, BVS and LILACS databases was performed. The PICO strategy (Population, Intervention, Comparison and Outcomes) was used in the search strategy intervention studies, while observational studies use the exposure factor as criteria. Inclusion criteria were observational and intervention studies in adults, without population or health status restrictions, and restriction on year of publication, but restricted to full articles in Portuguese, English, and Spanish. Exclusion criteria were: animal studies, humans under 18 years, cross-sectional studies, in vitro studies.

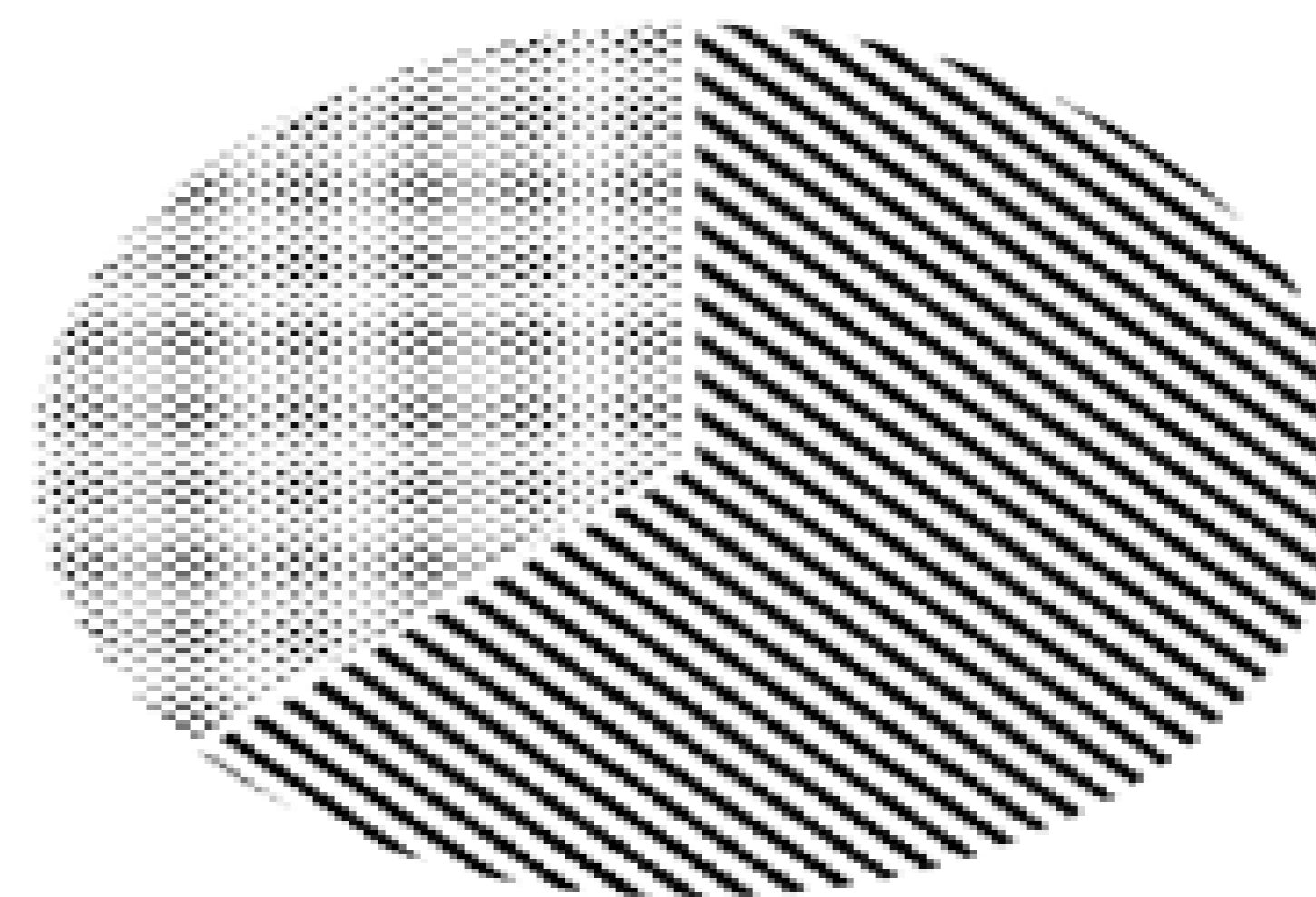
### RESULTS

Observational studies



Not Favorable Favorable Impartial

Clinical trials



Favorable Impartial

Figure.1 Favorable results or not the use of sweeteners by type of study

Clinical trial	Funding source:	As producer	Sugar industry	Other industry	Government	Private Non-profit	No funding	Other relevant statements by the authors
<b>Total:</b>		1	7	1	4	7	3	2 studies claimed that funders did not participate in the study interpretation or conclusions
Observational studies	Funding source:	As producer	Sugar industry	Other industry	Government	Private Non-profit	No funding	Other relevant statements by the authors
<b>Total:</b>					9			3 studies claimed that donors had no role in the study design, results

Table 1. Funding source

### CONCLUSION

The findings seem to be characterized by an increase of clinical trials favorable to the use of artificial sweeteners. Most of these studies received contributions from the food industry. Observational studies, for the most part, show that the use of artificial sweeteners is not favorable. In these studies, there was no sponsorship from the food industry, but from regulatory bodies. This result suggests that studies that had the support of the food industry suffered influences on their outcomes.

### REFERENCES

- Pepino MY. (2015) Metabolic effects of non-nutritive sweeteners. *Physiol Behav.*;152,450-5
- Jain T, Grover K.(2015) Sweeteners in Human Nutrition. *Int J Health Sci.* 5(5)
- Sylvetsky AA-O, Rother KI. (2018) Nonnutritive Sweeteners in Weight Management and Chronic Disease: A Review. *Obesity (Silver Spring).* 26(4):635-640.
- Kanas A, Anzai A, Paccola Blanco B(2013) Adoçantes artificiais: uma alternativa para o controle da obesidade, *Revista De Medicina.* 92(1), 1-12
- Mandrioli DA-Ohoo, Kearns CE, Bero LA(2016) Relationship between Research Outcomes and Risk of Bias, Study Sponsorship, and Author Financial Conflicts of Interest in Reviews of the Effects of Artificially Sweetened Beverages on Weight Outcomes: A Systematic Review of Reviews. *PLoS One* 11(9) 0162198