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RELATIONSHIP BETWEEN NUTRITIONAL STATE AND PREFERENCE OF SWEET TASTE IN CHILEAN SUBJECTS

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Rationale

In humans, inter-individual differences in the thresholds of detection of sweet taste have been reported, which could affect habitual sugar intake, and therefore the nutritional status. Therefore, the objective of the study was to determine if the preference for sweet taste differs according to nutritional status in the adult population

Methods



Sample:
Students, Officials and Teachers

Male and female 18 and 60 years

Organoleptic test with different sweet solution
(2,5%, 5%, 10% and 15% m/v)

Nutritional Status (Body Mass Index)

Smokers
Pregnants
Cognitive alterations
Pre-diabetes and DM

Clinical conditions related to taste disturbance

Results

Final sample comprised
319 people



30,1%



69,9%

No significant differences were observed in the preference for solutions with a higher concentration of sucrose according to nutritional status.



Regarding 15% solutions, men are **1.71** times more likely to choose it than women.

Table 1: Final ordinal regression model for the perception of sweet taste in first preference (op1)

		Estimation	Standar error	Wald	gl	Sig.	Confidence Interval 95%	
							Lower limit	Upper limit
Treshold	[op1= 2,5%]	-1,124	0,205	30,059	1	0,000	-1,525	-0,722
	[op1= 5%]	0,054	0,194	0,078	1	0,780	-0,327	0,435
Ubication	[sex=Women]	-0,868	0,230	14,283	1	0,000	-1,319	-0,418
	[sex=Men]	0 ^a	.	.	0	.	.	.

Link function: Logit.

a. This parameter is set to zero because it is redundant

The predictive model developed showed that men prefer the solutions with the highest concentration of sugar regardless of age and nutritional status

Conclusions

It is necessary develop new studies to clarify whether the preference for sweet taste favors the development of obesity and overweight, or if it is the nutritional composition of processed or ultraprocessed foods, which is having a greater negative impact on the nutritional status of the population

References

1. Kearns K, et al. Chronic disease burden associated with overweight and obesity in Ireland: The effects of a small BMI reduction at population level. BMC Public Health. 2014 Feb 10;14(1).
2. Ministerio de Salud (MINSAL). Encuesta Nacional de Salud 2016-2017 Primeros resultados [Internet]. Departamento de Epidemiología, División de Planificación Sanitaria, Subsecretaría de Salud Pública. 2017.
3. WHO. Obesity and overweight [Internet]. 2018 [cited 2019 Sep 25].
4. Harvey-Berino J. Calorie restriction is more effective for obesity treatment than dietary fat restriction. Ann Behav Med. 1999;21(1):35-9.

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