



## “Massa de Malagueta”: tradition with a twist

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characteristics of the NPE should be improved, such as the participation of nurses in management decisions, leadership, education, guidance, support and recognition of the work developed by nurses. Autonomy, control over the environment and collaboration between health professionals and managers improve teamwork and QNC.

**Discussion and Conclusions:** A positive NPE culture in PHC is highlighted as one of the key factors for the satisfaction, retention and recruitment of nurses and is associated with the improvement of the QNC. Concurrently, the development of a teaching-learning culture between managers and the nursing team develops and improves professional skills, with the consequent improvement of nursing practices.

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## References

- [1] Lake ET. Development of the practice environment scale of the nursing work index. *Res Nurs Health*. 2002; 25(3): 176–188.
- [2] Rabie T, Klopper HC, Coetzee SK. Creating positive practice environments in a primary health care setting. *Int J Nurs Practice*. 2017;23(4):e12555–e12558.
- [3] Peters M, Godfrey C, McInerney P, et al. Methodology for JBI scoping reviews. The Joanna Briggs Institute Reviewers' Manual 2015. Adelaide (Australia): The Joanna Briggs Institute; 2015.

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### ABSTRACT

**Introduction:** OMS estimates that, in 2010, approximately 600 million people had hypertension (HT) globally. The prevalence of HT in Portugal is between 30 and 45% and in the Azores is 33.6%. The high salt chilli sauce “Massa de Malagueta (MM)”, widely used in this archipelago, may contribute to this prevalence since excess dietary sodium predisposes to high blood pressure.

**Objectives:** Our aims were to reformulate the recipe of MM into a healthier version (lower salt, better ingredients), to determine its organoleptic acceptability, and total antioxidant capacity (TAC) in comparison to the traditional recipe.

**Methods:** Traditional version was designed sample A. The healthier version (sample B) was prepared by combining pepper, shredded tomato, dried tomato, garlic, Indian saffron, iodised salt (2.5 g per 100 g) and lemon juice. This was prepared several times prior to the final combination. Then, a sensory test was performed with 50 voluntary participants (84% females and 16% males) with a mean age of 21.84 ( $\pm$  4.55) years, to evaluate the acceptability of both samples. A Food Neophobia Questionnaire (FNQ) and a Samples Assessment Questionnaire (SAQ) were also applied. TAC was quantified by a Folin–Ciocalteu spectrophotometric method [1].

**Results:** Sample A contains only pepper and salt (14.8 g per 100 g), while sample B presented additional compounds with antioxidant activity. Concerning FNQ and SAQ, the vast majority of participants were willing to try the samples and had considered sample B has a more pleasant smell, taste and texture. Also, sample B presented a higher TAC than sample A (1.5088 mg/mL *versus* 0.6182 mg/mL).

**Conclusion:** The healthier version of MM presented lower salt (12.5% less) and had higher TAC than the traditional recipe. Also, this version was organoleptically acceptable. The higher TAC may be explained by the ingredients used. This study reveals that modifications of traditional recipes may increase nutritional value without compromising acceptance.

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## Reference

- [1] Prior RL, Wu X, Schaich K. Standardized methods for the determination of antioxidant capacity and phenolics in foods and dietary supplements. *J Agric Food Chem*. 2005;53(10):4290–4302.

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