

Intervention to decrease salt intake inadequacy using a control device to monitor and control salt use when cooking at home – iMC SALT preliminary results

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Introduction: Excessive salt intake is one of the greatest risks to public health, making urgent to propose measures to reduce its intake and bring great benefits to reduce cardiovascular diseases risk. In the Portuguese population, the main source of salt consumption is the salt that is added during food preparation and cooking meals.

Purpose: The main aim of this study was to assess whether an intervention using a dosing salt device (Salt Control H) in food preparation and cooking has beneficial effects in salt intake.

Methods: This was a two-arm randomized controlled trial. A total of 88 workers from a public university (50% female; mean age 47.2±11.4 years), were randomly assigned to a intervention (I; n=42) or a control group (C; n=46). The intervention was delivered by health professionals in an occupational medicine setting, asking participants to use a salt control device that delivers the maximum amount of salt to add in food preparation and cooking, according to the number and age of the persons who will consume the meal, during 8 weeks. Primary outcome was the 24-hour urinary sodium excretion (Na24), validated by creatinine coefficient, and secondary outcome was 24-h urinary sodium-to-potassium ratio (Na/K24).

Parametric tests were used to assess differences between urinary data stratified by C or I group and Mann-Whitney to evaluate differences between stratified groups according to meet WHO daily recommendations of intake.

Results: At baseline, there was no significant differences in mean Na24 (C: 3145.5±1420.1 and I:3268.7±1159.8 mg/d, p=0.096) and Na/K24 (C: 2.0±0.9 and I: 2.1±0.8 mg/d, p=0.792) between the two groups. After 8 weeks intervention, a Na24 and Na/K24 non statistically significant decrease was observed in the I group (to 3094.1±1391 and 2.0±0.8 mg/d), as opposed to the C group (to 3262.5±1527.0 and 2.2±0.9 mg/d). The proportion of participants from I group that present Na<2000 mg/d increased (from 0 to 29%) as the proportion of participants that present Na/K24 <1 (from 0 to 12%) without significant differences from C group (p=0.214 for Na <2000 mg/d and p=0.383 for Na/K24 <1).

Conclusion: The Salt Control H measurement device showed promising results to increase adherence to daily salt intake recommendations. The device is a useful and practical tool for educating individuals about dietary salt doses to add to meals cooked at home.

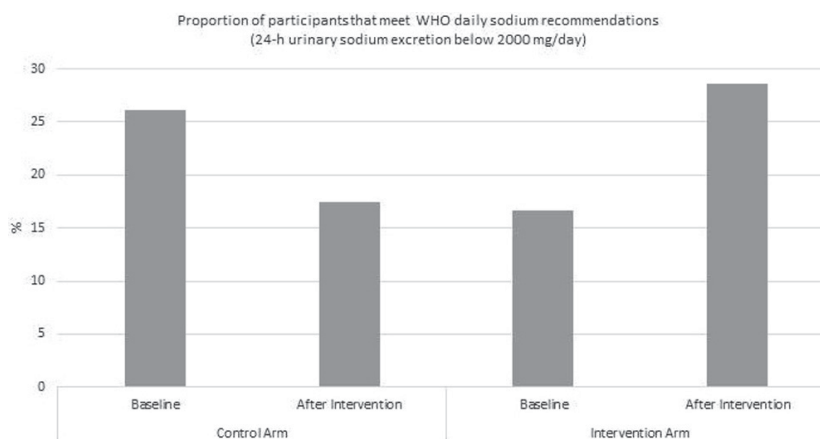


Figure 1