

## **Sensory characterization and the effect of chicken hamburger added of functional ingredient on the food intake of eutrophic women**

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**Keywords:** food intake; hamburger; sensory evaluation

### **ABSTRACT**

Functional foods are a rise field in food science due to their increasing popularity among health worried consumers. Flaxseed (*Linum usitatissimum*) has been the focus of growing interest for the researchers due to its potential health benefits associated with its biologically active components as alpha-linolenic acid (ALA), dietary fiber, high quality protein and phytoestrogens. We investigated if added hamburgers of flaxseed flour can reduce food intake due to the action of dietary fiber. The acceptance of the hamburgers was evaluated (n=27) considering the attributes, appearance, aroma, flavor and texture of the same, using the hedonic scale of 9 points (Meilgard et al, 2007). Therefore, we conducted a randomized, single blind, placebo-controlled, crossover design study involving healthfull women (food intake: n = 27). Habitual dietary habits were assessed using a 3-days food record. Three chicken hamburger presenting no flaxseed flour (control – F0) or 10% ou 20% of the tested flaxseed flour (F10 or F20) were consumed in three non-consecutive days. During the test days, food intake was assessed through 24-hours food records. Test meals had similar nutritional composition. There were no differences in the sensory attributes of the evaluated burgers (p> 0.05). The hamburgers independently tested the treatment reduced food intake on test days (p< 0.05) compared to habitual intake, possibly by action of dietary fiber by reducing the gastric emptying rate. The texture of the hamburgers may have been contributed by the lower food intake, mediated by the effect of the oral residence time of the foods in the mouth, which in turn could contribute to satiety. Controlled chicken burgers and added flaxseed flour can influence food intake through the contribution of dietary fiber and texture.