

The 13th European Nutrition Conference, FENS 2019, was held at the Dublin Convention Centre, 15–18 October 2019

## A digital meal nutritional score may influence food choices in a workplace restaurant: A pilot study

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### Abstract

**Introduction:** Food choice is complex. Digital nutrition applications are emerging to help decisions about food choices. Nestlé's Meal Nutritional Score (MNS) is a number between 0 and 100 that provides a measure of the extent to which a meal meets US dietary recommendations. The objective was to evaluate if the MNS influences food choices in a workplace restaurant.

**Materials and Methods:** A workplace education campaign ran over two weeks in order to introduce the MNS to employees. This was done during the lunch break at the entrance to the cafeteria of Nestlé's research centre, which serves around 250 hot meals at lunchtime every day. Employees choose between a typical Western meal, a healthy meal and a vegetarian meal. During the campaign, and for three weeks afterwards, LED screens displayed the MNS for the three different types of meal, every day. Employees' voluntary feedback on the MNS was collected using a closed-ended questionnaire. Descriptive analyses were done for the scores and sales of each type of meals for one week before the education campaign, immediately after the campaign and three weeks later. Data are reported as mean  $\pm$  1 standard deviation.

**Results:** Feedback was obtained from 152 employees, of whom 96% said the MNS helped them to understand the nutritional balance of the meals, and 38% said the MNS influenced their meal choices. The MNS scores pre-campaign, post-post campaign and 3 weeks later were  $52 \pm 14$ ,  $50 \pm 16$  and  $56 \pm 11$  for the Western meal;  $54 \pm 14$ ,  $62 \pm 6$  and  $67 \pm 6$  for the healthy meal and  $64 \pm 11$ ,  $57 \pm 14$  and  $57 \pm 12$  for the vegetarian meal, respectively. The percentage of sales pre-campaign, post-post campaign and 3 weeks later were  $48 \pm 10\%$ ,  $43 \pm 9\%$  and  $33 \pm 9\%$  for the Western meal;  $25 \pm 10\%$ ,  $30 \pm 8\%$  and  $36 \pm 10\%$  for the healthy meal, and  $27 \pm 4\%$ ,  $27 \pm 4\%$  and  $30 \pm 8\%$  for the vegetarian meal, respectively.

**Discussion:** The number of people selecting the healthy meal, which usually had the best score, increased during the three weeks following the education campaign, suggesting that the MNS positively influences food choices. The MNS may also help chefs to design more nutritionally balanced meals. Longer-term follow up is necessary to evaluate if these are sustained behaviour changes as well as to test the impact of the MNS in a different workplace environment.

### Conflict of Interest

All authors are Nestlé employees.