

How is the smell of a picky eater?

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Abstract

In the class of the behaviors classified as part of the spectrum of feeding difficulties, adult picky eating (PE) qualifies as a multidimensional phenomenon behaviorally and etiologically distinct from other disordered eating. Usually described as the unwillingness to eat familiar foods or to try new foods, PE may lead to poor dietary variety and nutritional deficiencies. Since previous studies have suggested a possible connection between the attitude toward the exploration of the chemosensory environment and the olfactory ability (Demattè *et al.*, 2013; 2014), we hypothesized that similar phenomena may occur for picky eaters. Thus, as part of a broader investigation that aims to evaluate the Italian olfactory function, the aim of this study was to investigate the relation between olfactory abilities and picky eating.

Data were collected from eighty-eight subjects (57.9 % female) between 22 to 68 years old. All the participants completed a conveniently back translated version into Italian of the Adult Picky Eating Questionnaire (APEQ; Ellis *et al.*, 2017) just prior to undergo the olfactometric assessment through the Sniffin' Sticks Test battery (Hummel *et al.*, 1997).

In our sample, according to Hummel *et al.*, 2007, we identified 84 normosmic and 4 hyposmic individuals. The questionnaire and its domains showed a good internal consistency close to the original proposed (Ellis *et al.*, 2017). Based on a Partial Least Squares Regression-1 model, higher APEQ total scores and relative subscales (Meal Presentation, Food variety, Meal disengagement and Taste aversion) seem to be associated with lower olfactory threshold and lower identification and discrimination abilities.

For the first time, a possible relation between olfactory abilities and adult picky eating has been reported.

Further investigations are needed to deeper understand the link between smell and the behavioral components of PE.

Keywords

Picky eating, Adult Picky Eating Questionnaire, Sniffin' Sticks Test, Olfactometric assessment