Exploring Gastrophysics: The Role of the Senses in Nutrition

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Gastrophysics is an emerging field of study focused on exploring the dining experience through psychological and sensory investigations. It is formed by the combination of the word “gastro” from gastronomy and the word “physics” from psychophysics. The objective of this study is to introduce the concept of “gastrophysics,” a multidisciplinary field with potential benefits for enhancing public health, which is not widely known in our country, by bringing together studies related to it. In this way, gastrophysics research can play a significant role in promoting healthy eating. Recent research reported visual attractiveness of food plays a crucial role in influencing consumers’ dining experiences and overall satisfaction. Furthermore, studies suggest that the shape of foods can influence perceived taste. Rounded shapes tend to evoke perceptions of sweetness, whereas angular shapes are more commonly associated with bitterness and saltiness. Factors such as the dining experience, ambiance, visual presentation of the food, sizes, and weights of the cutlery along with their color and material, as well as taste and aroma, all contribute to the overall perception of a meal. Studies on promoting healthy eating attitudes are expected to continue with the investigation of the different combinations of shape, aroma, and other characteristics of foods that affect the consumer's healthy choices. Therefore, studies in this field can be a key tool in coping with common health issues such as obesity and metabolic syndrome disorders.

Keywords: Gastrophysics, flavor, sense, nutrition, health.