



J. Dairy Sci. 100:1–12
<https://doi.org/10.3168/jds.2016-12533>
 © American Dairy Science Association®, 2017.

Consumers' perceptions toward 3 different fermented dairy products: Insights from focus groups, word association, and projective mapping

Erick A. Esmerino,*†¹ Juliana P. Ferraz,* Elson R. Tavares Filho,* Leticia P. F. Pinto,† Mônica Q. Freitas,† Adriano G. Cruz,‡ and Helena M. A. Bolini*

*Food and Nutrition Department, State University of Campinas (UNICAMP), Cidade Universitária "Zeferino Vaz," s/n, Campinas, São Paulo, Brazil, 13083-862

†Food Technology Department, Federal Fluminense University (UFF), Rua Senador Furtado, n° 121/125, Niterói, Rio de Janeiro, Brazil, 20270-021

‡Food Department, Federal Institute of Rio de Janeiro (IFRJ), Rua Senador Furtado, n° 121/125, Maracanã, Rio de Janeiro, Brazil, 20270-021

ABSTRACT

Yogurts, fermented milk beverages, and fermented milks have great similarity and are widely accepted by Brazilian population, but the factors that influence their choice and consumption are unknown. In this sense, the present study aimed to identify the main aspects involved in consumers' perception of 3 different products, comparing the findings by using the 2 fast qualitative methods, word association and projective mapping, and a standard method, focus group. The tasks were performed by different participants through graphic stimuli (word association and projective mapping) and focus interviews (focus group). Results showed that all the 3 methodologies identified numerous intrinsic and extrinsic factors that influence the consumer choices regarding fermented dairy products. Major dimensions were closely related to the sensory aspects, emotional factors, perception of benefits, and composition, among others. It is noteworthy that the stimuli related to fermented milk beverages evoked rejecting responses, possibly due to the dissociation between information and consumers' expectation. Although minor differences were observed between the number and type of dimensions that were obtained, similar conclusions can be drawn from all 3 sensory methods, which shows the relevance of qualitative and projective methods for investigation of consumers' perception. These findings can help dairy companies to provide subsidies and guidelines for the reformulation of their products, marketing strategies, and improvement in the communication between producers and consumers from different fermented dairy products.

Key words: consumers' perception, qualitative research, projective techniques, focus group, fermented dairy products

INTRODUCTION

The consumption of fermented dairy products in Brazil is constantly increasing, and between 2010 and 2015 the market almost doubled, reaching values close to 14.5 billion in local currency. Among fermented dairy products, yogurts and fermented milks are the most important items (CanaOnline, 2016). In addition, the production of milk beverages is one of the main options for the use of whey, especially in fermented milk beverages, which have similar sensory characteristics to yogurt and fermented milks (Siqueira et al., 2013; Farah et al., 2017).

Despite the distinct technological stages, nutritional content, and regulatory nomenclature, yogurts, fermented milk, and fermented milk beverage are found in Brazilian market with similar labels and packaging, which may influence the purchase decisions and consumption (Castro et al., 2013a; Janiaski et al., 2016). Yogurt is a popular product obtained by the proto-symbiotic fermentation of milk by both *Lactobacillus bulgaricus* and *Streptococcus thermophilus*. Through the decrease of pH and milk coagulation by nonspecific lactic acid-fermenting bacteria, fermented milk is obtained, whereas fermented milk beverage is basically obtained from milk, whey addition, and other food ingredients (Castro et al., 2013a; Janiaski et al., 2016). Although all are well accepted, the factors that drive the choice and consumption of these products are still unknown; thus, knowledge about factors that drive choice can improve the commercialization strategies among dairy enterprises in the market.

As the selection and consumption of food is a highly complex phenomenon, influenced by sensory and non-

Received December 29, 2016.

Accepted May 29, 2017.

¹Corresponding author: erick.almeida@hotmail.com

sensory characteristics, understanding of consumers' perception about a product is essential and a key factor for commercial success (King and Meiselman, 2010; Santosa et al., 2013; Spinelli et al., 2015) and should be carefully investigated. In this sense, techniques based on qualitative data stand out because they focus on particular contexts and contribute to the generation of new ideas outside of the rigid context of quantitative studies. Due their open-ended structure, qualitative data allow for deeper exploration of consumers' perceptions in a natural environment requiring little or no training sessions (Jervis and Drake, 2014).

Focus groups (**FG**) stand out as one of the main tools in the early stages of product development and consumer research (Carey, 2015; Morgan et al., 2016), with methods based on group meetings, carefully stimulated by a moderator, in comfortable and friendly environment, to gather target audience concepts, opinions, and attitudes about certain products (Krueger and Casey, 2014; Eldesouky and Mesias, 2014). However, FG participants may not express their honest and private opinions about the topic at hand, especially when their thoughts oppose to the views of another member. In addition, FG is time-consuming and expensive, which can impair its application. In this context, the need exists for deeper access and cost-efficient methods in consumer research.

Projective techniques have been imported from other areas for application in sensory science, becoming increasingly popular among researchers (Ares and Deliza, 2010; Vidal et al., 2013; Masson et al., 2016). They consist of a set of qualitative techniques, using vague and unstructured stimuli or situations where the individual can project his or her personality, attitude, opinions, and self-concepts to give the situation some structure (Donoghue, 2000). They are considered non-invasive approaches, thus accessing private conscious and unconscious parts of the mind of the individuals, which facilitates spontaneous verbalization of the most important representations of the stimulus (Guerrero et al., 2010; Eldesouky et al., 2015).

One of the most popular projective technique in exploratory studies is the word association task (**WA**). It is an effective and rapid method for obtaining information on consumers' perceptions, and it consists in providing a verbal or visual stimulus, where respondents are asked to share the first thoughts and images that come to their mind when they think about the product (Piqueras-Fiszman et al., 2013; Masson et al., 2016). These associations are quite important and are supposed to be the most relevant for consumers and their decisions when related to product purchase. Positive results have been reported in the assessment of consumer perceptions of different foods (Ares et al., 2008;

Rodrigues et al., 2015; De Andrade et al., 2016) and other products, including cosmetics (Gámbaro et al., 2014).

Projective mapping (**PM**) is a holistic methodology based on the evaluation of global similarities and differences among products (Mielby et al., 2014). In this technique, participants receive a sheet of paper and a sample set and are instructed to evaluate the samples and place them on the sheet according to their similarities and differences, in such a way that samples that are perceived as similar should be located close to each other whereas the samples perceived to be different should be located further apart (Vidal et al., 2014). Although it has been used in sensory characterization of different categories of foods in recent years (Risvik et al., 1994; Marcano et al., 2015; Pereira et al., 2016), studies addressing the use of PM with nontaste stimuli are limited (Dehlholm et al., 2012; Mielby et al., 2014; Varela et al., 2014; Fiszman et al., 2015) or nonexistent when considering the evaluation of dairy products.

Therefore, our study aimed to assess and compare the use of different exploratory qualitative techniques to collect consumer insights of 3 different fermented dairy products [yogurt, fermented milk beverage (whey-based), and fermented milk] by using FG, WA, and PM.

MATERIALS AND METHODS

Samples

Eight cards were used as a stimulus for WA and PM (Mielby et al., 2014; Zhang et al., 2016). Whereas the sensory characteristics and product packaging were similar, each card was made with an identical image of milky-looking liquid, containing different specifications, including the technical nomenclature and requirements of Brazilian law (Ministry of Agriculture, Livestock and Food Supply, 2005, 2007). The stimuli were chosen to represent the entire segment of these fermented dairy products in the Brazilian market. The cards were printed in color images and protected by a transparent adhesive paper; the stimuli are shown in Figure 1.

Information was written in the same font and size, differentiated only by the information provided by each product, ensuring that any effect on the data would occur due to the messages given. The information was presented as follows: full fat yogurt (**WYOG**), low-fat yogurt (**SKYOG**), probiotic yogurt (definition of probiotics according to FAO/WHO, 2002), full-fat fermented milk (**WFM**), low-fat fermented milk (**SKFM**), probiotic fermented milk (**PFM**; definition of probiotics according to FAO/WHO, 2002), fermented milk beverage that is a milk beverage not yogurt and contains

Download English Version:

<https://daneshyari.com/en/article/5541658>

Download Persian Version:

<https://daneshyari.com/article/5541658>

[Daneshyari.com](https://daneshyari.com)