

Probiotics, Health Claims and Consumer Needs: Do they Always Overlap?

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The term “probiotic” should be used for food that contains an adequate dose of live microbes with a scientifically documented ability to confer a health benefit on the host. Probiotic-containing foods can be categorized as functional foods and are often associated with prebiotics, which are nondigestible carbohydrates that act as food for probiotics. When probiotics and prebiotics are combined, they form a synbiotic. Yoghurt is considered a synbiotic food because it contains live bacteria and the gasoline they need to flourish. Along with prebiotics, probiotics represent the largest segment of the functional food market around the world. Particularly, the market of bio-functional dairy products, including probiotics, has become the corner stone of food innovation in the past few years. And yet, you don’t necessarily need probiotics to be healthy. How the logic can justify this boom? In a recent review, Jens Bleiel [1] explained that food industry is investing in functional foods because consumer insights in society seem to require, among others, healthy food with additional benefits targeted at improving the health and wellness of people. But what is “functional”? Clearly, all foods are functional, as they provide taste, aroma, or nutritive value. Within the last decade, however, the term functional as it applies to food has adopted a different connotation, that of providing an additional physiological benefit beyond that of fulfilling basic nutritional needs. Functional foods contain beneficial properties over and above their normal nutritional value. In this framework, probiotics are actually being functional products. Probiotics are obtained by the action of microorganisms, usually lactic acid bacteria and yeasts, which are useful to assist the gastrointestinal tract by breaking down sugars and carbohydrates to promote good digestion, boost the immune system, and maintain proper intestinal pH.

Almost all the major mega trends that nowadays influence consumer behavior have an impact on nutrition and health, thus on the quality of life of people [1]. The perception of food has notably evolved over years. By primary energy source, the food is in time become a source of proteins, then of vitamins and, then again, of minerals. Today, food is seen as a means of promoting useful bodily functions. This offers an incomparable business opportunity for the big food industries, provided that certain conditions are met. First, there should be a consumer requirement that need to be satisfied. Secondly, there must be a general perception of this need, so that it can be grasped and interpreted by the industry. Finally, this need must be strong enough to induce consumers to spend money to satisfy. All these pre-conditions are met by the probiotics. Many health effects attributed to probiotic microorganisms are related, among others, to the gastrointestinal tract. However, still a few probiotics have been well documented. Among the expectations for probiotics, a number of strains have been shown to modulate the intestinal microflora and to prevent the duration and complaints of rotavirus-induced diarrhea. Probiotic bacteria also reinforce the intestinal walls by “crowding” out pathogenic microorganisms, thereby helping to prevent their attachment to the human gut, where they can cause disease [2]. These strains have beneficial, scientifically proven, effects and have been shown to be safe. However, new products should be designed to meet emerging societal needs, identified in part by epidemiological and clinical studies. The biggest health problems today are represented

by obesity, blood pressure and cholesterol, which are exacerbated by an aging population. These universal health concerns are providing a remarkable opportunity for the food industry to enter the market with new product propositions. Probiotics may also be useful for the healthy population, which represents the largest portion of consumers, and should be clearly distinguished from those intended for medical use.

The market value of functional food, within which lie the probiotics, is estimated at \$28.9 billion. Estimates of the magnitude of the market of functional foods, however, vary significantly as there is no consensus on what constitutes a functional food. More significant, perhaps, is the potential of functional foods to mitigate disease, promote health, and therefore, reduce health care costs. And yet, there are more failures of functional food products in the market than there are successes. This is because basically the invention of new food has to start in the mind of the consumers. In 2006, a consumer/industry platform meeting entitled “Probiotics – the consumer perspective”, which was held in Rome in September 2005, discussed a number of topics based on questions posed by consumer organizations [3]. The topics included how important is gut health for the consumer or what the consumer expects from responsible manufacturers of probiotic products. In many cases, health claims are perceived as forcing the consumer. What health claims have to be made? And how valid are these claims? Often, many statements seem too general or are perceived as simply based on supposition more than rigorous science. For example, the statement that probiotics “improve the balance of microflora” is often made. On the other hand, it is unclear what this statement means or how this effect can be measured. A potential major problem for the probiotics is the misuse of the term. This can arise from products being referred to as probiotic without any relevant documentation.

Research into probiotics or, more generally, into functional food, will not advance public health unless the benefits of the foods are effectively communicated to the consumer. One of the key factors that determine the success of a new product is the marketing and communication strategies, while respecting labeling regulations. In other words: to take or maintain the confidence of the consumer, improved mechanisms of dialogue are necessary. In the case of probiotics, relevant to the consumer is the clarity of the benefit, that is what the consumer is paying for. “Strengthen the immune system” or “Cholesterol removal” is a message for consumers more meaningful than the generic “With added probiotics”. Challenges for commercialization of probiotics in

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the U.S. include, among others: the uncertainty of the food industry regarding mainstream consumer acceptance of probiotic products, partially due to poor consumer awareness of potential benefits; lack of unique, appealing product formats with probiotics; concerns over how to label products with health messages to attract consumer interest while meeting federal regulations; need for definitive scientific proof for extent of certain health effects associated with probiotics. Last but not least, the consumer expects to find an innovative product and this innovation starts from the proposition of a new packaging concept. There are many examples where packaging has played a decisive role in the success of new food products.

Still some final statements can be made. Food companies have conformed their innovation strategy starting from the consumer's behavior and needs but, as stated above, the consumer insights are not always implemented in a consequent way to the expected food products. It's clear, however, that the setting up of a new food has to start in the mentality of the consumer. When the needs of consumers and their implementation in tangible health benefits find a meeting point, then this is the beginning of the success of the product and the key to convincing people to spend money to buy probiotics. The awareness of the modern consumer to recognize the food new roles, in addition to their simple nutritional value, is the driving force explaining the boom

of probiotics and functional foods. Also in this context, much has still to be done. It seems we do not lack data, but rather we must propose them into consumers' understandable messages. Health claims should be scientifically proven, but also informative and comprehensible to consumers. Information on labels should be implemented and efforts should be made to enhance consumer understanding. All this brings back to the original questions: do we need probiotics to be healthy? And why healthy people are willing to spend money to purchase probiotics? It should be stressed that probiotics are not a magic bullet or universal panacea for poor health habits. There are no "good" or "bad" foods, but there are good or bad diets. Diet is only one component, though very important, of an overall lifestyle that can have an impact on health. In a foreseeable future, probiotic products will likely contribute to the prevention of increasingly prevalent health conditions such as allergies, obesity, and hypercholesterolemia.

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