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Cognitive and attitudinal determinants of functional food acceptance in Singapore

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Consumption of functional foods is one strategy to promote health or reduce the risk of diseases for consumers to have a healthier life. Despite the positive outlook in the functional food market in Singapore, little is known about the cognitive and attitudinal factors which play vital roles in influencing the acceptability and choice of functional food and their willingness to use them. This study investigates the relationship between various attitudes like attitudes towards functional food (ATTFF), general health interest (GHI) and natural product interest (NPI) in relation to consumer's willingness to consume functional foods (WILLFF). Primary quantitative data were collected from 462 Singaporean/ Permanent residences with a geographical sampling frame. Regression analysis of this empirical study confirms ATTFF as good predictors of WILLFF. Additionally, ATTFF and NPI were shown to alter the relationship between GHI and WILLFF through mediating and moderating processes, respectively. Consumers with higher GHI may not be willing to consume functional foods as there are other ways to maintain their health. Hence, this result shows the importance of a favorable ATTFF to mediate a health-conscious consumer in order for them to be more willing to consume FF. Additionally, NPI was shown to moderate the relationship between GHI and WILLFF. Lower NPI results in a more positive relationship between GHI and WILLFF. This model provides insight to health communicators to tailor their food related health information to that which resonates with and motivates consumers to consume functional food.

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Isolation of very tolerant probiotics for food application from native Iranian products

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Nutraceutical effectiveness of probiotics in foods is determined by the rate of probiotics viability in final products at the time of consumption. The amount of 10^7 cfu ml⁻¹ is recognized as the minimum level. The main vegetative (non-spore formers) probiotics used in foods belongs to genera *Bifidobacterium* and *Lactobacillus*. The greatest drawback of food probiotic technology is viability loss of probiotic cells during processing and particularly during the storage time due to their susceptibility to the harsh conditions of products. The pH and acidity, molecular oxygen and time and temperature of storage are the most detrimental factors. Furthermore, if a high number of viable cells have been protected in products by any method, it is not guaranteed that the same numbers would be reached to the intestine owing to the exposing the cells to very harsh in vivo conditions. Although much has been investigated and published about improvements on food formulations and processes in order to make them more adjustable to probiotic strains nature, practically and economically, the best way is to use tolerant strains. We have isolated and modified numerous Iranian native probiotic strains with outstanding resistance to very harsh conditions of fermented milk drinks, fruit juices and beer. Recently, these strains are industrially manufactured and sold to dairies in Iran and are being marketed in other countries. In this article, the resistance characteristics of mentioned probiotic strains (*Bifidobacteria* and *Lactobacillus*) to foods and simulated GIT are discussed. This new generation of probiotic strains can evolve the food probiotic technology.

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