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**PREDICTION OF PEOPLES' INTENTIONS  
AND ACTUAL CONSUMPTION OF  
FUNCTIONAL FOODS IN PALMERSTON  
NORTH**



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for the degree of  
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in  
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## ABSTRACT

Functional foods are a growing category in the food market, but little is known about New Zealanders' views or use of them. A study was carried out in Palmerston North over the period 2005-2006 to investigate determinants of functional food use. The study had two stages: firstly focus groups (5 focus groups, n=42) to understand more of the consumer's perspective, and then a detailed consumer survey. The questionnaire was based on the theory of Planned Behaviour (TBP), the Health Belief Model (HBM) and information gathered from the focus groups.

The results from the study showed that participants knew little about the functional food concept. There was also a strong indication of scepticism, with people concerned about adequate dosage and efficacy. Dietary supplements were seen as a way to achieve the benefit without some of the barriers associated with functional foods. Therefore, a significant proportion of the respondents (>30%) preferred to have the functional ingredients in pill form. Other respondents preferred to have functional ingredients delivered in a staple food that was consumed on a daily basis and the most preferred food vehicle was a drink. Nutrition and health were ranked highest as influencers of food choice, with taste and cost also ranked as important. Women were more likely than men to identify nutrition and health as their main influence.

An ANOVA model was used to establish the relationships between socio-demographics, health condition and health behaviour and the five attitudes factors (from exploratory factor analysis). No single attitude factor was significantly correlated with all the socio-demographic variables: women had less positive attitudes towards functional foods in general, were more likely to be sceptical and had less belief in the efficacy of functional foods. While more educated respondents considered functional foods to have less personal benefit, and those with lower income had less confidence in their own ability to consume functional foods.

Talking to others about functional foods was found to be significantly negatively correlated with all attitude dimensions and intentions indicating that when people talk to others that their views about functional foods become more negative. In addition, people who

currently used dietary supplements had less positive attitudes and lower intentions to consume functional foods in general. Those who had existing CHD or arthritis symptoms had lower intentions than others to consume functional foods directed towards these diseases.

Exploratory factor analysis also identified two factors related to intention to consume functional foods; one for functional foods in general and another for disease (arthritis and CHD) functional foods. Women had less intention to consume functional foods in general, while older adults were more likely to intend to consumer disease specific functional foods.

A series of models were evaluated by using structural equation modelling to see how well they could predict peoples' intentions to purchase and their actual purchase of functional foods in general, as well as disease specific functional foods. The analysis showed that the TPB model ( $R^2=57\%$ ) and a modified TPB ( $R^2=61\%$ ) better predicted peoples' intention to consume general functional foods than the theory of reasoned action model ( $R^2=55\%$ ). However, a model that included the modified TPB model plus 2 constructs (perceived benefits, perceived barriers) from the health belief model was best of all ( $R^2=72\%$ ) at predicting peoples' intention to consume general functional foods. Perceived barriers were the most influential predictor of intention (barriers included uncertainty about efficacy and dose; surprisingly taste and cost were not significant predictors, but this was probably due to the fact these constructs were not explored as multi-dimensional constructs.

The models were poor at predicting intentions to consume specific functional foods, but the addition of perceived susceptibility and perceived severity improved prediction of intentions towards anti-CHD functional foods ( $R^2 = 43\%$ ). Perceived susceptibility, but not perceived severity, improved prediction of intention to consumer anti arthritis functional foods ( $R^2=37\%$ ).

The research suggests that attitudes towards the concept of functional foods are generally positive, but scepticism is evident. Functional foods are not necessarily seen as 'healthy', nor are they considered a way to treat existing conditions. Thus careful marketing will be required to target product and messages to relevant segments of the market.

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