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Fruit & vegetable intake among men in New Zealand:
An evaluation and extension of a stage and
continuous model of dietary behaviour

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Abstract

Purpose. The purpose of the study is to develop a better understanding of the process of behaviour change and factors which contribute to an increased level of fruit and vegetable intake (F&V) among men in New Zealand. The study aims to determine the impact of psychosocial and contextual factors integrated into an extended stage model. As a more parsimonious continuous model maybe sufficient for understanding F&V intake, the study also plans to evaluate the impact of psychosocial and contextual factors on behaviour, and whether intentions is the mechanism by which the psychosocial factors influence behaviour.

Design. Data was collected using a self administered questionnaire in a mail survey from $N = 518$ men aged 18 years and over randomly selected from the electoral roll. Mean differences in factors across the stages of change were assessed with one way ANOVAs and Games Howell post hoc tests, and trend analyses assessed linear and non-linear components of trend. The independent impact of factors on intentions and behaviour was assessed with hierarchical multiple regression analyses.

Measures. Stage of change was assessed with a single item measure, F&V intake with a 7-item food frequency questionnaire, and food insecurity with items used in the 1997 National Nutrition Survey. Previously developed measures were used to assess the pros, cons, self efficacy, self identity, and susceptibility to disease. Scales were developed and adapted for F&V intake for control, descriptive and subjective norms.

Results. In total, 51% of men were in the action/maintenance stage and 32%, 10% and 7% in the precontemplation, contemplation, and preparation stages respectively. Mean F&V intake was 3.92 ($SD = 2.08$) servings a day and 30.4% were eating at least 5 servings. All factors differed significantly across the stages of change. The predictor variables collectively explained $R^2 = 43\%$ (42% adjusted) in intentions and 40% (38% adjusted) in behaviour. The impact of self efficacy and intentions on behaviour depended in part on household food insecurity status.

Discussion. Similar conclusions were reached using the stage and continuous model. To increase intentions of eating 5 or more servings of F&Vs a day in the future, interventions should modify perceived norms, self efficacy, pros and cons, and awareness of F&V guidelines. Interventions targeting those with high food insecurity may also be required to help translate their intentions into action.

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