

Concurrent Session 10: Behavioural Nutrition

A mixed methods investigation of weight loss trial dietary adherence within a self determination theory framework

KE Markwell^{1,2}, S Somerset^{1,2}, F Rowe¹, S Borbasi^{3,4}

¹School of Public Health, Griffith University, ²Heart Foundation Research Centre, ³School of Nursing and Midwifery, Griffith University, ⁴Research Centre for Clinical Practice and Innovation

Background – Dietary adherence is a significant issue in treating obesity and prevention of heart disease using energy-restricted diets. Such diets are efficacious in short-term trials in controlled environments, but are not effective in longer term community based settings due to drop out and poor dietary adherence. Identification of patients most likely to adhere to treatment diets represents a cost-effective way to use this treatment modality. This study applied self determination theory (SDT) to investigate adherence in an Australian setting in a monounsaturated enriched weight loss diet trial.

Objective – To investigate dietary adherence in a weight loss trial using a SDT framework.

Design – Non adhering and adhering participants were interviewed about their dietary adherence motivations between one to three months in their weight loss trial involvement. Interviews were analysed using thematic analysis. Results were integrated with quantitative demographic data and SDT health measures within a concurrent transformative mixed methods research design.

Outcomes – A number of themes related to the SDT framework developed and personal dietary adherence. Adherence themes reflecting both individual aspects and trial aspects were present. For example, ‘autonomous practitioner support’ in the SDT framework included themes of *positive nutritionist, doesn’t reprimand, praises and encourages, listens and comes up with new suggestion* as important for adherence. Not all themes fitted within the SDT framework. In future, tailoring of the framework to include these will be needed, so it reflects more accurately dietary adherence. Quantitative tools contributed additional information about the presence of SDT framework aspects.

Conclusion – These SDT adherence findings give information that can be used for practical enhancement of dietary adherence in weight loss interventions. There is potential to use these themes to predict adherers when recruiting to enhance the cost effectiveness of weight loss interventions.

Shape up for Life: 12-month outcomes of a group-based diet and lifestyle intervention for obesity and metabolic syndrome – importance of follow-up

TL Pettman^{1,2}, AM Coates¹, JD Buckley¹, GMH Misan^{1,2}, PRC Howe¹

¹ATN Centre for Metabolic Fitness and Nutritional Physiology Research Centre, University of South Australia, Adelaide SA 5000, ²Spencer Gulf Rural Health School, Whyalla SA 5608

Background – Evidence is limited on the sustainability of diet and lifestyle programs and on the importance of follow-up for long-term management of obesity and metabolic syndrome (MetS).

Objective – To determine the importance of active (vs passive) follow-up for maintenance of improvements in body composition and cardio-metabolic health following a group-based lifestyle modification program.

Design – A 12-month randomised controlled trial, incorporating an initial 4 month active lifestyle intervention based on a non-energy restricted diet and physical activity (PA) program, conducted with 153 overweight/obese individuals with MetS. Participants were randomised to intervention (INT) or control (CON). INT was further randomised to INT-A (active follow-up from 4-12 months) or INT-B (no active follow-up). Assessments were conducted at 0, 4 and 12 months and included a range of markers of body composition, cardiovascular, metabolic and physical fitness. Diet was assessed with food frequency questionnaires.

Outcomes – On completion of the 4 month program, body composition, blood pressure (BP), blood lipids and physical fitness improved in INT compared with CON ($P < 0.01$ for all). Eight months later, in the 75% of participants who returned for final assessments, measures of obesity (BMI, waist circumference, waist:hip ratio, body fat mass and % body fat), fasting blood glucose and BP were improved in INT relative to CON ($P < 0.05$ for all). Improvements in waist circumference were significantly better ($P = 0.006$) with active follow-up (6 ± 1 cm in INT-A) than without (2 ± 2 cm in INT-B). For INT-A, the extent of reduction in body fat mass at 12 months correlated with attendance at monthly group meetings after the initial intervention $r = -0.48$, $P < 0.001$.

Conclusion – This study has demonstrated that a group-based dietary and PA program can deliver sustainable improvements in body fat and cardio-metabolic health. Active-follow up plays an important role in maintaining changes in body composition.