The BROAD study: A randomised controlled trial using a whole food plant-based diet in the community for obesity, ischaemic heart disease or diabetes

Obesity increases the risk for a number of other diseases. Many individuals try to change their diet in order to lose weight. The whole food plant-based (WFPB) diet, a diet high in micronutrient density, has been shown to aid weight loss and weight-loss sustainability, in the improvement of glycaemic control, and in the reversal of ischaemic heart disease. It also “generally requires less land, energy and water than a diet high in animal products.” In this obesity intervention, the effectiveness of a community based WFPB dietary programme was measured in a population of New Zealanders. Participants followed a low-fat, plant-based diet since previous studies have shown it may help to achieve optimal outcomes for heart disease and weight loss. Key foods included whole grains, legumes, vegetables and fruits. Those enrolled in the intervention group also participated in 2-hour evening sessions twice weekly for 12 weeks on different healthy eating and food-focused activities.

No mandated exercise or calorie counting was implemented. Instead, participants were asked to focus on the foods they were consuming and on eating until satiated. At the six-month end point of the programme, significant differences in Body Mass Index (BMI) were seen between the intervention and control groups. Therefore, the intervention was offered to the control group and the ethics approval was granted to extend follow up to three years. Statistically significant weight reduction was seen in the intervention group at 6 months and 12 months. Regardless of starting diet, the intervention group compared with the control group had a self-reported increased quality of life at six months. In fact, total medication usage decreased for this group. Weaknesses for this program include that the intervention group’s adherence to the programme decreased with time. The drop in intervention group cholesterol levels was largest at the measurement points when adherence was the highest. The WFPB diet can be seen as an effective, safe option for weight loss and chronic disease risk and quality of life improvements. The principle of eating to satiety is a strong suit of this study that aided adherence and should be considered in future interventions.

Reference: Wright, N., Wilson, L., Smith, M. et al. The BROAD study: A randomised controlled trial using a whole food plant-based diet in the community for obesity, ischaemic heart disease or diabetes. Nutr & Diabetes 7, e256 (2017). https://doi.org/10.1038/nutd.2017.3