Supplementary Material

Text message design

Text messages were created using a social cognitive theory framework that considered aspects of behaviour change such as education, self-monitoring and goal setting (Supplementary table 1)

Supplementary Table 1: Example of Text message framework

Text message type	SCT construct	Example text	Fortnightly frequency
Educational	1. Outcome expectations (providing information on consequence)	Hi [name] Extra virgin olive oil is an important source of nutrients and antioxidants and is always the oil of choice for the MedDiet (134 characters)	1-4
Self-monitoring	2. Self-regulation 3. Assist with perceived impediments and facilitators of behaviour	Hi [name], are you keeping track of ur fruit/vegetable intake every day? Remember your goal to meet at least 5 serves per day this week (128 characters) Hi [name], have you tried some of the recipes in your MedDiet cookbook? Tell us your favourite at our next portal session (121 characters)	1-4 0-2
Goal check of behavioural goals	4. Self-regulation	Hi [name], did you reach ur goal to eat 5 fruits/vegetables 4 times this week? Text me back yes or no to let me know (119 characters)	2-4

SCT = Social cognitive therapy

Diet intervention

The intervention promoted an 'Australianised' Mediterranean diet, adapted from other Australian based MedDiet interventions [1, 2] which aligned with Greek-style Mediterranean diet pattern, but included local foods easily accessible in the Australian food supply. Despite the Mediterranean diet recommending moderate wine intake with meals, any alcohol was specifically excluded and discouraged in this intervention designed for liver transplant recipients. Example of typical prescription in Supplementary Table 2.

Supplementary Table 2. Example of 9,600kJ Australianised Mediterranean diet

Food Group	Servings per day/week
Extra Virgin Olive Oil	3 TB per day (54 grams/day) (or more)
Fruit	3 serves per day, at least 2 serves must be fresh fruit.
Vegetables	6 serves per day (or more)
Wholemeal grain products	6 serves per day (or more)
Skim milk	½ - 1 serve per day
Potatoes	1 serve per day (or less)
Yoghurt	6 serves per week (170 g serves)
Cheese – Feta, Ricotta, Cottage	4 serves per week
Fish	3 serves per week, at least 1 must be fatty fish
Legumes	3 serves per week (or more)
Nuts	6 serves per week (or more)
Poultry	1-3 serves per week
Red Meat	1 serve per week (or less)
Small goods	2 serves per week (or less)
Eggs	6 per week (or less)
Water	Should be the main drink.
Extras	3 serves per week (or less)

All participants were provided with a "starter pack" of key MedDiet ingredients including a 500ml bottle of extra virgin olive oil, 500g almonds, x2 sachets of salmon pieces, x1 sachet of tuna pieces, x1 tin of sardines, x1 400g tin of 4 bean mix and received a goal setting workbook and Mediterranean diet cookbook [3].

The key food characteristics of the intervention included predominantly plant foods with a focus to increase vegetables (at every meal and include leafy greens and tomatoes daily), fruits, legumes (x2 meals per week), wholegrains; extra virgin olive oil as the oil of choice for all meals and cooking, fish (twice per week), nuts and greek yoghurt regularly (cheese in moderation). Red meat reduced to smaller portions and only once per week and avoid consumption of processed foods and suager-sweetened drinks. Alcohol abstinence was to be maintained. Calorie restriction and weight loss was not the focus of the intervention and there was no expectation to monitor calorie intake, but rather the focus was on food choices, food combinations, and dietary patterns aligned with an Australianised Mediterranean Diet.

All participants received a brief overview of the dietary pattern at the time of recruitment in small groups with a Dietitian. A one-on-one individual session via videoconference was offered whereby each participant had the opportunity to discuss privately with the Dietitian any issues that were relevant to their ability to adhere to the dietary intervention such as individual medical comorbidities (eg type 2 diabetes, Hepatitis C), socio-economic situations (eg family/work commitments, shared housing arrangements, budgets, mental health), and food preferences (eg specific food likes/dislikes, intolerances, allergies). All other interactions with the health professionals was via group videolinked appointments.

The group sessions were designed to facilitate discussion and sharing of stories amongst participants rather than didactic learning. Despite the Dietitian providing specific educational information on request, participants were often referred to the booklet for specific content information so the group sessions could focus on goals, behaviour, support, encouragement and knowledge exchange between participants as well as with the health professional. The topic of discussion for each diet session was generally patient-led with topics discussed based on the experiences of those dialing into the group. Sessions typically involved topics such as goal setting, integrating MedDiet meals into family meals, MedDiet pyramid, meal and snack ideas, recipe modification, eating out, eating more vegetables, including legumes in meals, recommended quantities of food groups, eating on a budget, planning physical activity into the day. Participants were referred back to further detail provided in their workbook.

Participants were encouraged to share stories of success and failures regarding recipes, meals and snacks and interactions with family and friends regarding their change in dietary habits. Sharing of material for example successful recipes was facilitated by a central study email whereby the Dietitian or project officer would distribute to other participants via email. Contact details of participants were not shared with other participants.

Estimation of impact of intervention on dietary cost

To assess for any unintentional impact of the intervention on cost of food, an estimation of usual diet intake cost was determined before and after the intervention. Dietary intake was assessed using 2 x 24-hour dietary recalls using the online Automated Self-Administered 24-hour dietary assessment tool adapted for Australia (ASA24-Australia-2016; National Cancer Institute, Bethesda, MD)[4], with implausible intakes (energy intake >3500kcal/d) excluded from analysis[5]. To estimate cost of dietary intake, foods and beverages were categorised into 128 food groups, with food group costs collected from two major supermarket chains (between 10/1/2018 to 17/1/2018) and mean cost per 100g/100ml/item for primarily generic brands or cheapest option were used. For ready-to-consume takeaway or restaurant items (i.e. takeaway coffee or curry/Chinese meal), food items were costed through two popular food chains and averaged. Mixed meals were costed by summing the cost of individual food components. All food and beverage costs were summed to determine the average daily food cost per participant before and after the intervention.

Complete pre-post dietary data were available for 23 participants, but data from two participants were excluded due to implausible intakes, resulting in 21 participants with complete data for analysis. Cost analysis revealed the daily cost of dietary intake was not different from before to during the intervention, where a Mediterranean pattern of eating was promoted (median, [IQR]; $AUD10.42/d [5.58, 15.46] vs $AUD9.77/d [5.34, 12.99]; p=0.741). At the end of the intervention there was an increase in mean daily cost associated with fish/seafood (+$1.20/d), fruit (+$0.46/d), vegetables (+$0.31/d) and legumes (+$0.16/d) and decrease in mean daily cost associated with purchased fluids (-$1.10/d), takeaway meals (-$0.46/d) and meat (-$0.26/d).

Technology access and connectivity

The predominant internet connection type used by participants was Wifi (69%), followed by broadband (27%) and mobile data (5%). Device types most used by participants were laptops (48%) or tablets (36%) whilst others used personal computers (9%) or smartphones (8%). Most participants (58%) used only one device type, 31% used two and 12% used three across the sessions (Supplementary Tabe 3).

Supplementary Table 3: Technology access and connectivity chosen by participants during the intervention

	% participants
Internet connection type	
Wifi	69
Broadband	27
Mobile data	5
Device Type	
Laptop	48
Tablet	36
Personal computer	9
Smartphone	8
Number of device types used during intervention	
One device	58
Two devices	31
Three devices	12

Exercise Intervention

The exercise program contained aerobic and resistance-training exercises individualised to patient preferences, barriers, and opportunities, taking into account comorbidities (e.g. musculoskeletal limitations). Participants were provided with a stepper and exercise therabands of varying resistance to support aerobic and resistance training respectively at home.

All participants underwent a thorough one-on-one assessment at recruitment for pre-existing medical or musculoskeletal co-morbidities that may impact on the ability to undertake exercise prescription. Notes were taken at this time to assist the exercise physiologist to determine appropriate exercise prescription tailored to the participants baseline exercise capacity, strength and confidence. All participants had an initial group session with an Exercise Physiologist, which orientated participants to the equipment and the types of exercises that would be performed as part of the regular exercise sessions. Participants were provided with links to short video clips online of pre-recorded demonstrations of typical exercises that would be used in the exercise sessions. All other interactions were via group videoconference appointments, whereby a structured exercise session using the stepper and resistance therabands was facilitated by the exercise physiologist and participants performed the activity in their own environment with the equipment previously provided.

The prescription focused on home-based exercises and aimed to have participants accumulate 150 mins/week of moderate to vigorous aerobic exercise and complete two sessions of resistance exercises/week including the 60 minute remotely supervised sessions on offer.

The frequency of supervised sessions on offer were; weekly for the first 4 weeks followed by fortnightly till week 12 (total of 8 supervised sessions). All supervised sessions included a 5-10 minute warm up (walking on the spot, lifting knees high, rolling shoulders, big arm swings) and 5 minute warm down (reducing from run to a walk, gentle stretches).

The mode of aerobic training depended on equipment and environment availability. For example, if stairs were available then these were recommended to be utilised for aerobic training. Intensity was monitored using the Borg rating of Perceived Exertion (RPE) Scale with moderate targeted to 11-14 on the scale and vigorous targeted to 15-18 [6]. Exercise intensity was adjusted based on patient-practitioner discussions to take into account any increased cardiorespiratory fitness. Resistance training consisted of 2 to 4 sets at a load between 5 and 12 of repetition maximum (RM). For example, an 8RM is the weight that can be lifted only eight times. For non-athletes, there is little additional benefit performing resistance training sets to failure, so participants were encouraged to finish the set one or two repetitions before neuromuscular failure. The exercise physiologist made amendments

to the training protocol on an individual basis based on both auto-regulation of training and any medical concerns (e.g. musculoskeletal issues). Auto-regulation of training was applied to enhance adherence and tolerance to the prescribed protocol. Using this method, the participant, in conjunction with their exercise trainer adjusted intensity and volume of the session according to their perceived capacity at that time.

The resistance exercises were introduced incrementally each week, starting with 1 x 8RM. During subsequent weeks resistance training prescription followed a standard linear progression. Participants completed a total of two resistance-training sessions per week with a minimum of 36 hours recovery recommended between resistance training sessions. Exercises comprised both lower body and upper body exercises. A sample of resistance exercises that were completed (and varied) include: Lower Body (Leg press, Squats, Leg Curl, Leg Extension, Lunges); Upper Body (Chest Press, Push-up, Seated Row, Lat Pull-down, Shoulder Press).

Participants were encouraged to set exercise-related goals and log them on completion (Example shown in Supplementary Tables 4 and 5). These were designed to motivate self-monitoring and were not compulsory to discuss with the exercise physiologist.

Supplementary Table 4: Example of Exercise Training Goal log

Aerobic Training Exercise Goals: Complete 2 x 30 minute brisk walking sessions at moderate intensity (target heart rate zone 95-119 based on my age) and 1 x 15 minute aerobic stepping session at vigorous intensity (target heart rate zone 121-154 based on my age).
Resistance Training Exercise Goals: Complete one resistance training session during the telehealth session and one resistance training session at home. I will start with one set of 8 repetitions (at an intensity of 8RM).

Day	**What I will do (type of exercise, duration of exercise, intensity of exercise)**	**When (time of day)**	**Tick when goal completed**
Monday	5 minute slow walk at an RPE of 9-11 as a warm up 30 minute brisk walk at heart rate 95-119 bpm 5-10min of slow walking and some stretches.	10:30am - 11:15am	

Tuesday			
Wednesday	Telehealth exercise session- I will aim to do my vigorous intensity stepping and some resistance training exercises during this session as guided by the instructor.	3-4pm	
Thursday			
Friday	Resistance training exercises- as per my telehealth session, with 10 minutes of stretching at the end.	10-11am	
Saturday	5 minute slow walk at an RPE of 9-11 as a warm up 30 minute brisk walk at heart rate 95-119 bpm 5-10min of slow walking and some stretches.	10:30am - 11:15am	
Sunday	Gentle walk with family	4pm	

Supplementary Table 5: Example of Resistance Training Log - Week 1

Warm Up: Activity: aerobic stepping for 5 minutes at a heart rate of 102 & RPE of 11

Exercise	**Sets**	**Repetitions**	**Band Colour/ Weight**	**Average heart rate**	**RPE /20**
Chair Squats- using chair for guidance but not touching	1	8	Nil	121	14
Push ups- with knees on mat	1	8	Nil	127	15
Upright row	1	8	Red band	125	15
Lunges- one set	1	8	Nil	122	15

each leg					
Calf raises- both legs together	1	8	Nil	121	15
Bicep Curls	1	8	Blue band	130	16
Tricep dips on chair	1	8	Nil	132	17
Leg Extension- sitting on chair using can between feet	1	8	1 can of lentils	124	15
Shoulder press	1	8	Red band	131	16
Abdominal plank- with knees on mat	1	25 seconds	Nil	138	17

Supplementary References

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