

Supplementary 3 (S3)

Table S3. Brief overview of intervention and intervention focus

Primary source	Intervention overview	Theoretical orientation	Intervention engagement	Measurement instrument	Measure
Aguiar <i>et al</i> , 2016(43)	<ul style="list-style-type: none"> - The Prevention Using Lifestyle Education (PULSE) program consisted of: <ul style="list-style-type: none"> o Intervention content from SHED-IT in Morgan <i>et al</i>. (2013) o Diabetes Prevention Handbook for men and PULSE Exercise Support Book for Men, including prescribed home-based exercise program, logbook, and resistance band device 	SCT	LOW 13% of men met log book compliance	Pedometer	Steps/day
Andersen <i>et al</i> , 2012(44, 45)	<ul style="list-style-type: none"> - Structured group exercise sessions led by exercise physiologist twice a week - Two group lectures; individual counselling session; written material and a phone call 	SCT	LOW 60% attendance of exercise portion 90% attended group lectures All participants completed individual counselling and phone call.	Actigraph Accelerometer	Counts per minute per day
Ashton <i>et al</i> , 2017(46)	<ul style="list-style-type: none"> - The HEYMAN program consisted of: <ul style="list-style-type: none"> o Responsive website o Wearable physical activity tracker and resistance band for home-based strength training with associated app/website. o One-hour weekly face-to-face exercise sessions (11x group based and 1x individual) focusing on aerobic and strength exercise o Personalised food and nutrient report o Private Facebook discussion group 	SCT SDT	MODERATE 100% visited website at least once, 63% visited weekly, 58% used app daily, 91% attended one 60-min face-to-face session	Pedometer	Steps/day
Galvao <i>et al</i> , 2017(47)	<ul style="list-style-type: none"> - Self-management materials and monthly telephone group (~6-8 participants) peer support for 6 months. 1/6 sessions focused on physical activity and peers discussed exercise at each session to check how men's physical activity goals were progressing - Participants provided with elastic exercise device and heart rate 	Nil	MODERATE Mean attendance 4/6 (67%) sessions, 28% accessed website at least once	Godin Leisure-Time Exercise Questionnaire	Total exercise min/week

	<p>monitor</p> <ul style="list-style-type: none"> - Online material also available and men received feedback on unmet supportive care needs, distress score, waist circumference, and exercise levels 				
Gong <i>et al</i> , 2015(48)	<ul style="list-style-type: none"> - The KM2H program consisted of: <ul style="list-style-type: none"> o Two 45–60-minute lectures (i.e., “Secrets for Blood Pressure Control through Exercise”; “Individualised Physical Activity Counselling”) o Two 10–20-minute telephone counselling on obstacles to engaging in physical activity o Two group sessions (~8–10 participants) provide opportunities to share skills, experiences, and build social support o Two booster sessions post-intervention 	TTM MPM SCapT	unknown	Self-report Questionnaire (non-validated survey)	Levels of physical activity
Gray <i>et al</i> , 2013(49)	<ul style="list-style-type: none"> - Football Fans in Training (FFIT) included twelve weekly 90-minute group (~15 men) sessions at professional football stadia. <ul style="list-style-type: none"> o Classroom-based education on topics related to weight management, healthy eating, alcohol and increasing daily physical activity o Coach-led physical activity sessions including training in aerobic, strength and flexibility exercises - Pedometers to support self-monitoring as part of incremental pedometer-based walking program 	SCT CT	MODERATE 76% attended at least 80% of the sessions	International Physical Activity Questionnaire (Short Form)	Total activity (MET min/week)
Groeneveld <i>et al</i> , 2011(50)	<ul style="list-style-type: none"> - Health under Construction consisted of: <ul style="list-style-type: none"> o Three 45-60-minute face-to-face sessions o Four 15-30-minute one-on-one telephone counselling sessions, using motivational interviewing delivered by occupational physician o Participant’s risk profile, personal determinants, and barriers for behaviour change were discussed, and goals set. Participants chose to aim at either diet and PA, or smoking 	Nil	unknown	Short Questionnaire to Assess Health enhancing PA (SQUASH)	Leisure time physical activity and spot-related expenditure (MET min/week)
Hunt <i>et al</i> , 2014(51)	<ul style="list-style-type: none"> - As for FFIT in Gray <i>et al</i>. (2013) 	SCT CT	MODERATE 79% attended at least 6/12 sessions	International Physical Activity Questionnaire	Total activity (MET min/week)

				(Short Form)	
Livingston <i>et al</i> , 2015(52, 53)	<ul style="list-style-type: none"> - The ENGAGE intervention was a clinician-referred 12-week community exercise program consisting of: <ul style="list-style-type: none"> o Two 50-minute supervised gym sessions and one home-based session per week based on exercise guidelines for cancer survivors developed by the American College of Sports Medicine and Exercise and Sport Science Australia 	SCT	HIGH 85% attended at least 18/24 gym session, of those that completed diary (74%), 81% completed 9-12 home-based weekly session	Godin Leisure-Time Exercise Questionnaire	MVPA min/week
Maruyama <i>et al</i> , 2010(54)	<ul style="list-style-type: none"> - The LiSM program included: <ul style="list-style-type: none"> o Individualised assessment and collaborative goal setting sessions based on food group intake and physical activity o Two individual counselling sessions with a registered dietitian and physical trainer o Monthly website advice designed to promote healthy dietary habits and physical activity o Monthly individual contact with a dietitian and a physical trainer. The fourth counselling session, at end of the third month, conducted through the website o Personal and interactive website to self-monitor weight, food intake and physical activity, and discuss awareness of lifestyles for self-monitoring throughout the intervention period o Pedometer linked to website. Data automatically presented in figures on their individual website pages 	Nil	LOW Adherence to self-reporting was low (75% of intervention, 50% control returning usable records)	Pedometer	Steps/day
McGowan <i>et al</i> , 2013(55)	<ul style="list-style-type: none"> - The PROMOTE intervention provided all participants with physical activity Guidelines for Americans (2008) - Self-administered implementation group: <ul style="list-style-type: none"> o Recorded current levels of physical activity, set goals and made detailed plans to meet the physical activity guidelines, or increase physical activity by 60+ min/week if already meeting guidelines. List personal physical activity barriers, and strategies to overcome barriers 	TPB	LOW 46% saying they did not really complete it, 23% reporting completing some of it, 17% most of it, and 14% all of it	Godin Leisure-Time Exercise Questionnaire	Total activity (min/week)

	<ul style="list-style-type: none"> - The telephone-assisted implementation group: <ul style="list-style-type: none"> o Same as above plus a 12-minute telephone call to assist with goal setting and planning 				
Morgan <i>et al</i> , 2013(56)	<ul style="list-style-type: none"> - Self-help, Exercise, Diet and Information Technology (SHED-IT) weight loss program for men consisted of a resource package including DVD, gender-tailored handbook and a pedometer to monitor step count <ul style="list-style-type: none"> o Two of nine evidence-based weight loss messages focused on physical activity ('Every step counts', 'Reduce sitting time'. One of the three SMART goals that men were asked to set each month was related to physical activity - Online version included exercise diary and some exercise-related feedback 	SCT	unknown	Pedometer	Steps/day
Morgan <i>et al</i> , 2014(57)	<ul style="list-style-type: none"> - Health Dads, Healthy Kids (HDHK) consisted of seven weekly group sessions (90 minutes each): <ul style="list-style-type: none"> o Four sessions for fathers only, and three practical sessions for fathers and children, which included co-physical activity. o Weight loss component of HDHK intervention was adapted from SHED-IT program 	SCT FST	MODERATE Mean attendance rate for 7 sessions was 71%	Pedometer	Steps/day
Morgan <i>et al</i> , 2011a(58)	<ul style="list-style-type: none"> - As for HDHK in Morgan <i>et al</i> (2014) 	SCT FST	HIGH Participants attended 81% of the sessions	Pedometer	Mean steps/day
Morgan <i>et al</i> , 2011b(59)	<ul style="list-style-type: none"> - Workplace POWER (Preventing Obesity Without Eating like a Rabbit) consisted of: <ul style="list-style-type: none"> o One face-to-face information session (75 min) covering energy balance, shift work challenges to diet and physical activity, weight loss tips, and behaviour change strategies (self-monitoring, goal setting, social support) o Group-based financial incentives (\$AU50 voucher per person for sport store for group with highest mean weight loss at 1 month and end of program) o Online component (direction to publicly accessible, free weight loss website) o Program booklet, weight loss handbook, and pedometer 	SCT	LOW Average of 24 exercise entries on website across 14 weeks. 28% complied with web-based components	Godin Leisure-Time Exercise Questionnaire	Total MET minutes/week
Morgan <i>et al</i> , 2009(60)	<ul style="list-style-type: none"> - As for SHED-IT in Morgan <i>et al</i> (2013) 	SCT	LOW	Pedometer	Mean

			Average of 23 exercise entries on website throughout intervention. 41% complied with web-based tasks		steps/day
Patrick <i>et al</i> , 2011(61)	- Internet-based intervention designed to promote weight loss through goals for diet and physical activity including increasing steps per day, and strength training consisting of: <ul style="list-style-type: none"> Computerised assessment to allow tailoring of messages Weekly web-based learning presented in short sessions using “business-like” language and graphics Individualised feedback on progress Pedometers to self-monitor daily step count and recording of minutes of other physical activity 	SCT	MODERATE Average of 23.4 weekly logins	International Physical Activity Questionnaire (Long Form)	Total walking (min/day)
Petrella <i>et al</i> , 2017(62)	- As for FFIT in Gray <i>et al</i> [20] and Hunt <i>et al</i> [22], except ice-hockey setting	CT SCT SRT	HIGH Mean session attendance of 82%	Pedometer	Mean steps/day
Pritchard <i>et al</i> , 1997(63)	- Two intervention arms including weight loss through diet or through physical activity <ul style="list-style-type: none"> Self-selected aerobic leisure exercise regimen, minimum 3 x weekly 	Nil	MODERATE >70% attendance at bimonthly presentations	Activity Diary	Index of activity
Schröder <i>et al</i> , 2018(64)	- The PREDIMED-Plus program targeted goal setting, action planning, feedback, informational materials, motivation, and self-monitoring during: <ul style="list-style-type: none"> Twelve individual (60-minute) sessions Twelve telephone calls Three one-hour group sessions. Tailored physical activity goals and an action plan - Participants are provided with a pedometer and a physical activity diary for self-monitoring	Nil	unknown	Regicor Short Physical Activity Questionnaire	MET min/day
Shin <i>et al</i> , 2017(65)	- The EPAROSFI program included: <ul style="list-style-type: none"> Standardised education materials One-to-one education on diet and exercise from a nurse for 5 minutes each session. Contents included consequence of 	BET	MODERATE Incentive group decreased from about 0.9 to 0.5 goals	International Physical Activity Questionnaire	Kcal/week

	<p>obesity, dietary recommendations for weight loss, and physical activity recommendation including intensity, time, and type</p> <ul style="list-style-type: none"> Fitmeter accelerometer and smartphone app to self-monitor, with or without additional financial incentives 		accomplished per day.	(Short Form)	
Viestar <i>et al</i> , 2018(66)	<ul style="list-style-type: none"> The VIP in Construction program includes personal health coaching, information, tools to support changes in PA and dietary behaviour Two to four coaching sessions and tailored information offered during work hours including training instruction for core stability and strengthening exercises “VIP in construction” toolbox (overview of company health-promoting facilities, waist-measuring tape, pedometer, BMI calculator, calorie guide, recipes, and knowledge tests) 	TPB HBM TTM PAPM	unknown	Short Questionnaire to Assess Health enhancing PA (SQUASH)	MVPA (min/week)
Werkman <i>et al</i> , 2010(67)	<ul style="list-style-type: none"> Five program modules over 1 year. Module 3 aimed to improve dietary and/or physical activity; participants could receive computer-tailored feedback on: physical activity, fibre, portion size. Module 1 included pedometer. Modules 4 and 5 online – participants access information on diet and physical activity behaviour. 	TPB TTM PAPM	MODERATE 82% used toolkit, 72% CD1, 41% CD2, 54% website and 16% interactive components	Physical Activity for the Elderly	Daily PA (min/week)
Wyke <i>et al</i> , 2019(68)	<ul style="list-style-type: none"> EuroFIT included twelve weekly 90-minute group (~15-20 men) sessions at professional football stadia. <ul style="list-style-type: none"> Classroom-based education on topics related to increasing daily physical activity and reducing sedentary time and maintaining changes long-term, and healthy eating (including alcohol consumption) Coach-led physical activity sessions including training in aerobic, strength and flexibility exercises Pedometers to support self-monitoring as part of incremental pedometer-based walking program; novel pocket-worn device SitFIT) to self-monitor sedentary and non-sedentary time 	SCT CT	MODERATE 86% attended at least 6 of the 12 sessions, 54% attended 10 or more, 15% attended all 12 sessions	ActivPAL	Steps/day

Nil = Not identified; SCT = Social Cognitive Theory; SDT = Self Determination Theory; TTM = Transtheoretical Model; MPM = Model of Personalised Medicine; SCapT = Social Capital Theory; CT = Control theory; TPB = Theory of Planned Behaviour, FST = Family Systems Theory; SRT = Self-regulation Theory; BET = Behavioural Economic Theory; HBM = Health Belief Model; PAPM = Precaution Adoption Process Model

