Supplementary material "PREview behavior Modification Intervention Toolbox: PREMIT"

Behavior change stage	Objectives	Mechanisms (Behavioral predictors)	GV	Behavior Change Techniques	Tool(s)	Assessment
Week 1-8 Preliminary stage (LCD phase) GV 1 - GV 4 *Overall objective: Prepare participants to be mentally ready for their behavior change*	• Enable participants to follow the LCD	**No predictor addressed; Required activity according to the study protocol**	1	• Provide information on where and when to perform the behavior with respect to the LCD period (20)	• Written material	**No assessment**
	• Convince participants to change behavior	Intention	2, 3	• Fear appeal/arousal (32) (1)	• Persuasion (central route)	Intention
	• Promote actional self-efficacy	Actional self-efficacy	2,3 3 4	• Prompting past success (18) • Modelling demonstration (22) • Comparison with others (3.4)	• Persuasion (central route)	Action self-efficacy
	• Convince participants that the recommended behavior will be followed by positive outcomes	Outcome expectancies and severity	4	• Information on individual consequences (2)	• Persuasion (central route)	Outcome expectancies
	• Prepare participants to be mentally ready for physical activity	**No predictor addressed**	4	• Environmental (re-)structuring (24); instruction on auditing the physical activity environment	• Template for auditing	**No assessment**
Week 9-12 Preparation stage GV 5 - GV 7(8) *Overall objective: Enable participants to begin, follow and train the "new" behavior*	• Help defining SMART goals	Intention	5	• Goal setting (5)	• Template for defining SMART goals	Intention
	• Help defining plans	Intention	5	• Action planning (7) (20)	• Template for action planning	Intention
	• Help to commit to goals	Intention	5	• Contracting (25)	• Template for contracting	Intention
	• Promote self-efficacy	Actional self-efficacy	6	• Modelling demonstration (22)/ comparison to others (3,4)	• Provide information a) approval of others b) behavior of others (3.4)	Action self-efficacy
	• Foster positive outcome expectancies	Outcome expectancies	6	• Information on individual consequences (2)	• Persuasion (central route)	Outcome expectancies
	• Enable participants to overcome barriers	Temptation; habits	7	• Barrier identification/problem solving (8)	• Mental contrasting technique	Temptations, habits
	• Promote/ support self-regulation	Self-regulation of motivation; Goal adjustment	6	• Prompt review of behavioral goals (10) (16) (19), • Prompt self-monitoring of behavior	• PA log & DCQ	Self-regulation of motivation Goal adjustment
	• Help participants find social support	Social support	7	• Plan social support (29)	• Buddy-system	Social support
	• Enable subjects to stick to the new behavior	Self-regulation of motivation	6, 7	• Prompt rewards contingent (12) • Provide rewards (13)	• Shaping (Phase 1) (14)	Self-regulation of motivation PA log, DCQ, Accelerometer
			7, 8	• Prompt focus on past success (18)	• PA log & DCQ	
			6, 7, 8	• Provide feedback on performance (19)	• PA log & DCQ	
			5	• Provide information on how to perform the behavior (21)	• Written material	

<u>Notes.</u> Numbers in quotations in column 'Behavior change techniques' are BCTs listed in Michie et al., (2011)

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Week 16 - 26 Action stage GV 8 - GV 10 *Overall objective: Enable participants to stick to the recommended behavior*	• Promote self-efficacy	Coping self-efficacy	8	• Prompt focus on past success (18); • Provide Feedback on performance (19); • Provide information on how to perform the behavior (21)	• PA log & DCQ; Written Material	Coping self-efficacy (action self efficacy)
	• Enable participants to overcome barriers	Temptations	8	• Barrier identification/problem solving (8)	• Mental contrasting	Temptations; habits
		Habits	8	• Environmental restructuring (24)	• Stimulus control; decision-prompts	Temptations; habits
	• Promote/ support self-regulation and goal adjustment	Self-regulation of motivation; goal adjustment	9	• Prompt review of behavioral goals (10) (16) (19)	• PA log & DCQ	Self-regulation of motivation; Goal adjustment; PA- log; DCQ; accelerometer
			10	• Prompt self-talk (33)		
			10	• Prompt use of imagery (34)	• Mental contrasting	
			10	• Prompt self-monitoring of behavior (16)	• PA log & DCQ	
			10	• Provide feedback on performance (19)	• PA log & DCQ	
			8	• Teach to use prompts/ cues (23)	• Decision-prompts	
			10	• Provide follow-up prompts (27)	• Decision-prompts	
	• Enhance self-regulation of motivation	Self-regulation of motivation	9, 10	• Provide rewards (13)	• Shaping (Phase 2) (14)	Self-regulation of motivation
	• Help participants finding social support	Social support	9	• Plan social support (29)	• Buddy-system	Social support
Week 27 - 156 *Maintenance stage* GV 11 - GV 17 *Overall objective: Enable participants to prevent lapses and relapses*	• Enhance coping abilities and coping self-regulation	Coping self-efficacy	11, 12, 13, 15, 17	• Relapse prevention/ coping planning (35)	• Mental contrasting	Coping self-efficacy
			11, 12	• Provide follow-up prompts (27)	• Decision-prompts	
	• Enhance abilities to manage lapses and to avoid relapses	Attributional style	14, 15, 16	• Training on beneficial attributions	• Attribution (re-)training	Attributional style
	• Enable abilities for resumption	Goal adjustment	13, 14, 15, 16, 17	• Prompt self-monitoring (16) (19)	• PA log & DCQ	Goal adjustment, PA log, DCQ, accelerometer
			13, 14, 15, 16, 17	• Provide feedback on performance (19)	• PA log & DCQ	

Abbreviations. CID = Clinical investigation day; DCQ = Dietary compliance questionnaire; GV = Group visit; LCD = Low calorie diet; PA log = Physical activity log; SMART = Specific Measureable Accepted Relevant Time-bound

Notes. Numbers in quotations in column 'Behavior change techniques' are BCTs listed in Michie et al., (2011)