

Report Supplementary Material 3 (Chapter 5)

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1.1. Behaviour change techniques theoretically coherent with important domains.

Integrating recommended BCTs applicable to TDF domains across both matrices				
Domain	Mapped BCTs - Cane et al 2015 ¹	Mapped BCTs - Michie et al 2008 ^{2*}	Supplementing Gaps in Cane et al 2015 ¹	Merged Matrix
Environmental Context and Resources	Restructuring the physical environment Discriminative (learned) cue Prompts/ Cues Avoidance/ changing exposure to cues for the behaviour Restructuring the social environment	Environmental changes (e.g. objects to facilitate behaviour)	none	Restructuring the physical environment Discriminative (learned) cue Prompts/ Cues Avoidance/ changing exposure to cues for the behaviour Restructuring the social environment
Social Influences	Social comparison Social support (unspecified) Social support (emotional) Social support (practical) Information about others' approval Vicarious consequences/ reinforcement Restructuring the social environment Identification of self as a role model	Social processes of encouragement, pressure or support Modelling/demonstration by others	+ Demonstration of the behaviour	Social comparison Social support (unspecified) Social support (emotional) Social support (practical) Information about others' approval Vicarious consequences/ reinforcement Restructuring the social environment Identification of self as a role model

	Social Reward			Social Reward Demonstration of the behaviour
Knowledge	Information about health consequences	Information about health consequences	+ Information about social and environmental consequences	Information about health consequences
	Biofeedback	Information about social and environmental consequences	+Information about emotional consequences	Biofeedback
	Antecedents	Information about emotional consequences	+Salience of consequences	Information about antecedents
	Feedback on behaviour	Salience of consequences		Feedback on behaviour
				Information about social and environmental consequences
			Information about emotional consequences	
			Salience of consequences	
Memory, Attention, Decision Processes	NONE	Self-monitoring of behaviour	+Self-monitoring of behaviour	Self-monitoring of behaviour
		Self-monitoring of outcome of behaviour	+Self-monitoring of outcome of behaviour	Self-monitoring of outcome of behaviour
		Action planning	+Action planning	Action planning
		Prompts and cues	+Prompts and cues	Prompts and cues
Beliefs about consequences	Information about emotional consequences	Self-monitoring of behaviour	+Self-monitoring of behaviour	Information about emotional consequences
	Salience of consequences	Self-monitoring of outcome of behaviour	+Self-monitoring of outcome of behaviour	Salience of consequences
	Covert Sensitization	Information about health consequences	+Information about health consequences	Covert Sensitization

	Anticipated regret	Feedback on behaviour	+Feedback on behaviour	Anticipated regret
	Information about social and environmental consequences	Biofeedback	+Biofeedback	Information about social and environmental consequences
	Pros and Cons	Feedback on outcome(s) of behaviour	+Feedback on outcome(s) of behaviour	Pros and Cons
	Vicarious reinforcement	Persuasive communication (Credible source)	+Persuasive communication (Credible source)	Vicarious reinforcement
	Threat	Information about social and environmental consequences		Threat
	Comparative imagining of future outcomes	Saliency of consequences		Comparative imagining of future outcomes
		Information about emotional consequences		Self-monitoring of behaviour
				Self-monitoring of outcome of behaviour
				Information about health consequences
				Feedback on behaviour
				Biofeedback
				Feedback on outcome(s) of behaviour
				Persuasive communication (Credible source)
Emotions	Reduce negative emotions	Reduce negative emotions	+ Conserving mental resources	Reduce negative emotions
	Information about emotional consequences	Conserving mental resources		Information about emotional consequences

Self-assessment of affective
consequences

Social support (emotional)

Self-assessment of affective
consequences

Social support (emotional)

Conserving mental resources

1.2. Domains targeted by frequently used behaviour change techniques.

Integrating recommended, applicable TDF domains across both mapping matrices for BCTs identified as frequently used in existing interventions included in the Phase 1 review of interventions to increase diabetic retinopathy screening attendance					
BCT	ApplicableTDF domains according to Cane et al 2015 ¹ matrix	ApplicableTDF domains according to Michie et al 2008 ² matrix	Supplementing gaps in Cane et al ¹	Merged matrix	Research Team query/proposed additions
Patient intervention arms					
Goal-setting (outcome)	Goals	Motivation and Goals Skills Behavioural Regulation	+Skills +Behavioural Regulation	Goals Skills Behavioural Regulation	
Feedback on outcomes of behaviour	Knowledge	Beliefs about capabilities Beliefs about consequences	+Beliefs about capabilities +Beliefs about consequences	Knowledge Beliefs about capabilities Beliefs about consequences	
Credible source	NONE	NONE		Beliefs about consequences Social Influences	+Beliefs about consequences +Social influences
Prompts and cues	Environmental Context and Resources	Memory, Attention, Decision Making Behavioural regulation	+Memory, Attention, Decision Making +Behavioural regulation	Environmental Context and Resources Memory, Attention, Decision Making Behavioural regulation	
Social support	Social influences	Social influences	+Social professional	Social influences	

(unspecified) AND Social support (practical)			role/identity		
		Social professional role/identity	+Beliefs about capabilities	Social professional role/identity	
		Beliefs about capabilities	+Motivation and goals	Beliefs about capabilities	
		Motivation and goals		Motivation and goals	
Problem solving	NONE	Skills	+Skills	Skills	
		Beliefs about capabilities	+Beliefs about capabilities	Beliefs about capabilities	
		Motivation and goals	+Motivation and goals	Motivation and goals	
Restructuring the social environment	Environmental context and resources	Social Influences	+Social Influences	Environmental context and resources Social influences	
Instruction on how to perform the behaviour	NONE	NONE		Knowledge	+Knowledge
				Skills	+Skills
Information about health consequences	Knowledge	Knowledge	+Beliefs about consequences	Knowledge	
		Beliefs about consequences	+Motivation and goals	Beliefs about consequences	
		Motivation and goals		Motivation and goals	
Healthcare professional intervention arms					
Restructuring the social environment	Environmental context and resources	Social Influences	+Social Influences	Environmental context and resources Social influences	
Credible source	NONE	NONE		Beliefs about consequences	+Beliefs about consequences +Social influences
				Social Influences	

Adding objects to the environment	NONE	Environmental context and resources	+ Environmental context and resources	Environmental context and resources
Social support (practical)	Social influences	Social influences Social professional role/identity Beliefs about capabilities Motivation and goals	+Social professional role/identity +Beliefs about capabilities +Motivation and goals	Social influences Social professional role/identity Beliefs about capabilities Motivation and goals
Instruction on how to perform the behaviour	NONE	NONE	+Knowledge +Skills	Knowledge Skills
Prompts and cues	Environmental Context and Resources	Memory, Attention, Decision Making Behavioural regulation	+Memory, Attention, Decision Making +Behavioural regulation	Environmental Context and Resources Memory, Attention, Decision Making Behavioural regulation
Feedback on outcomes of behaviour	Knowledge	Beliefs about capabilities Beliefs about consequences	+Beliefs about capabilities +Beliefs about consequences	Knowledge Beliefs about capabilities Beliefs about consequences
Biofeedback	Knowledge	Beliefs about capabilities Beliefs about consequences	+Beliefs about capabilities +Beliefs about consequences	Knowledge Beliefs about capabilities Beliefs about consequences



1.3. References

1. Cane J, Richardson M, Johnston M, Ladha R, Michie S. From lists of behaviour change techniques (BCTs) to structured hierarchies: comparison of two methods of developing a hierarchy of BCTs. *Br J Health Psychol* 2015;**20**:130-50.
2. Michie S, Johnston M, Francis J, Hardeman W, Eccles MP. From theory to intervention: mapping theoretically derived behavioural determinants to behaviour change techniques. *Appl Psychol* 2008;**57**:660-80.