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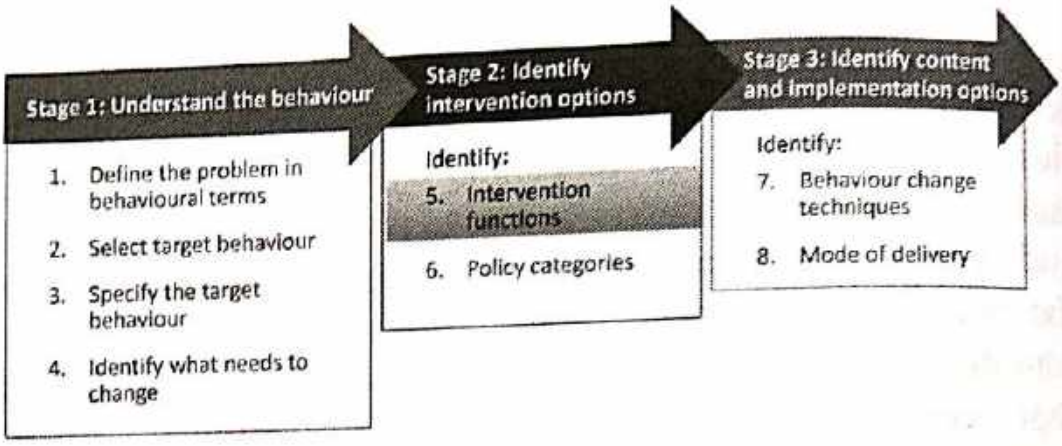
Chapter 2: Identify intervention options

Sometimes, an appropriate behaviour change strategy clearly follows from an existing body of literature and the task is to improve on what is already there or to introduce and evaluate an innovation that looks promising. In the field of smoking cessation, for example, it has been established in multiple randomized controlled trials that brief advice on smoking given opportunistically to patients typically results in some 2% stopping long-term who would not otherwise have done so [54]. A useful next step, then, is to assess what kind of advice gives the best results [55].

Following Steps 1-4 in Chapter 1 you have arrived at a 'behavioural diagnosis' of what needs to change in order for the desired behaviour to occur. In this chapter we will link this behavioural diagnosis with functions that effective intervention are likely to serve and the policy categories through which the intervention could be implemented.

Step 5: Identify intervention functions



The 'behavioural diagnosis' resulting from the COM-B (or TDF) analysis is a key staging post for designing an intervention. As shown in the case studies in Boxes 1.11-1.14, 1.16-1.17 (pp 76-86, 96-105) the behavioural analysis identifies COM-B components and/or domains of the TDF that can be targeted as potential levers of change.

In 2007, NICE (National Institute for Health and Care Excellence) identified evidence-based principles of behaviour change (summarized in [56]). Below we illustrate how these can be linked with COM-B components.

Maximise **capability** to regulate own behaviour

1. Develop relevant skills such as goal-setting, monitoring and providing feedback
2. Develop specific plans to change

Maximise **opportunity** to support self-regulation

3. Elicit social support
4. Avoid social and other cues for current behaviour
5. Change routines and environment

Increase **motivation** to engage in the desired behaviour

6. Reward change
7. Develop appropriate beliefs, e.g. benefits of changing, others' approval, personal relevance, confidence to change
8. Develop positive feelings about changing
9. Develop new habits

These principles can also be understood in terms of the general functions they serve. By 'intervention function', we mean broad categories of means by which an intervention can change behaviour. In considering possible interventions, it is important to start by considering the full range of possible intervention functions available. This is helped by using a framework of behaviour change to guide intervention design. Many frameworks of behaviour change have been produced, with varying levels of comprehensiveness, coherence and theoretical base. A systematic literature review of frameworks of behaviour change interventions identified 19 frameworks which comprised essentially nine intervention functions and seven policy categories [1]. The resulting integrated framework, the Behaviour Change Wheel (BCW), linked these intervention functions and policy categories to the COM-B model, which forms the hub of the wheel (see Figure 1).

We classify intervention functions rather than interventions because any particular intervention strategy or BCT may have more than one function. For example, a message such as 'Please make sure you use soap when washing your hands - just rinsing them is not enough to kill the bacteria that cause nasty stomach bugs', can serve to

improve knowledge but also with words such as 'nasty' it can evoke emotions in a way that goes beyond this into persuasion.

The nine intervention functions identified in synthesising the 19 frameworks are: education, persuasion, incentivisation, coercion, training, restriction, environmental restructuring, modelling and enablement (definitions and examples are given in Table 2.1). If you wish to see the 19 frameworks and the methods used to synthesise them, they are in Appendix 1 and in the supplementary files of the published paper [1].

The BCW does not provide a detailed blueprint for the design of behaviour change interventions, but does provide a systematic and theoretically guided method for identifying the types of interventions and supporting policies that would be expected to be effective for a given behaviour, context and target individual, group or population.

Table 2.1 BCW intervention function definitions and examples

Intervention function	Definition	Example of intervention function
Education	Increasing knowledge or understanding	*Providing information to promote healthy eating*
Persuasion	Using communication to induce positive or negative feelings or stimulate action	*Using imagery to motivate increases in physical activity*
Incentivisation	Creating an expectation of reward	*Using prize draws to induce attempts to stop smoking*
Coercion	Creating an expectation of punishment or cost	*Raising the financial cost to reduce excessive alcohol consumption*
Training	Imparting skills	*Advanced driver training to increase safe driving*
Restriction	Using rules to reduce the opportunity to engage in the target behaviour (or to increase the target behaviour by reducing the opportunity to engage in competing behaviours)	*Prohibiting sales of solvents to people under 18 to reduce use for intoxication*
Environmental restructuring	Changing the physical or social context	*Providing on-screen prompts for GPs to ask about smoking behaviour*

Table continued.

Modelling	Providing an example for people to aspire to or imitate	*Using TV drama scenes involving safe-sex practices to increase condom use*
Enablement	Increasing means/ reducing barriers to increase capability (beyond education and training) or opportunity (beyond environmental restructuring)	*Behavioural support for smoking cessation, medication for cognitive deficits, surgery to reduce obesity, prostheses to promote physical activity*

Linking COM-B and TDF to BCW intervention functions

The COM-B and TDF identify what needs to shift for the desired behaviour to be achieved and therefore what to target in an intervention. The BCW identifies intervention functions and supporting policies likely to be effective in bringing about change. The links between COM-B, TDF and the intervention functions, identified by a group of experts in a consensus exercise are shown in Tables 2.2 and 2.3. For each COM-B component or TDF domain identified as relevant in bringing about the desired change in the target behaviour, Table 2.2 shows which intervention function is likely to be effective in bringing about that change.

Table 2.2 Links between COM-B, TDF and intervention functions

COM-B	TDF	Intervention functions
Physical capability	Physical skills	Training
Psychological capability	Knowledge	Education
	Cognitive and interpersonal skills	Training
	Memory, attention and decision processes	Training Environmental restructuring Enablement
	Behavioural regulation	Education Training Modelling Enablement

Table continued.

Reflective motivation	Professional/social role and identity	Education Persuasion Modelling
	Beliefs about capabilities	Education Persuasion Modelling Enablement
	Optimism	Education Persuasion Modelling Enablement
	Beliefs about consequences	Education Persuasion Modelling
	Intentions	Education Persuasion Incentivisation Coercion Modelling
	Goals	Education Persuasion Incentivisation Coercion Modelling Enablement
Automatic motivation	Reinforcement	Training Incentivisation Coercion Environmental restructuring
	Emotion	Persuasion Incentivisation Coercion Modelling Enablement

Physical opportunity	Environmental context and resources	Training Restriction Environmental restructuring Enablement
Social opportunity	Social influences	Restriction Environmental restructuring Modelling Enablement

Table 2.3 Matrix of links between COM-B and intervention functions

COM-B components	Intervention functions								
	Education	**Persuasion**	**Incentivisation**	**Coercion**	**Training**	**Restriction**	**Environmental restructuring**	**Modelling**	***Enablement***
Physical capability					■				■
Psychological capability	■				■				■
Physical opportunity					■	■	■		■
Social opportunity						■	■	■	■
Automatic motivation		■	■	■	■		■	■	■
Reflective motivation	■	■	■	■					

Examples of how one could move from COM-B to intervention functions are given in Table 2.4. The constructs in the first column are ways of sub-classifying capability, opportunity and motivation. They provide an intermediate level of abstraction between COM-B and the TDF. Whether these constructs or other are most useful will no doubt depend on the circumstances and the behaviour. At present it is best to think of them as options that can be tried.

Table 2.4 Linking COM-B components to intervention functions

COM-B	Intervention functions
Influencing capability	
Knowledge	**Educate** about ways of enacting the desired behaviour or avoiding the undesired one
Skill	**Train** in cognitive, physical or social skills required for the desired behaviour or avoid the undesired one
Strength	**Train** or **enable** development of mental or physical strength required for the desired behaviour or to resist the undesired one
Stamina/ endurance	**Train** or **enable** endurance required for desired behaviour or sustained resistance to undesired one
Influencing opportunity	
Time	**Train** or **restructure the environment** to reduce time demand or competing time demands for desired behaviour (and additionally use **restriction** to reduce undesired behaviour)

Table continued.

Resources	**Restructure the environment** to increase social support and cultural norms for desired behaviour (and additionally use **restriction** to reduce undesired behaviour)
Location/ physical barriers	**Train** or **Restructure the environment** to provide cues and prompts for desired behaviour (and converse for undesired behaviour)
Interpersonal influences/ cultural expectations	**Restructure the social environment** or use **modelling** to shape people's ways of thinking
Influencing motivation	
Plans	**Educate, train** to form clearer personal rules/ action plans, and train to remember and apply the rules when needed
Evaluations	**Educate** or **persuade** to create more positive beliefs about desired, and negative ones about undesired, behaviour
Motives	**Persuade, incentivise, coerce, model** or **enable** to feel positively about the desired behaviour and negatively about the undesired one
Impulses/ inhibition	**Train** or **enable** to strengthen habitual engagement in the desired behaviour or weaken the undesired one
Responses	**Model** desired behaviour to induce automatic imitation

An example of the way that COM-B categories and intervention functions can be drawn from the field of obesity [57]. Several intervention strategies can be considered to reduce portion size ranging from education to minor environmental restructuring. These strategies are summarized in Table 2.5.

Table 2.5 Linking intervention strategies intervention functions and COM-B components to promote eating smaller food portions

Intervention strategy to reduce portion size	**Intervention functions**	**COM-B**
Physical environment		
Increase availability of portion-controlled products	Environmental restructuring	Physical opportunity
Smaller crockery and utensils	Environmental restructuring	Physical opportunity
Food environment		
Clearly signal serving size for large packages	Education	Psychological capability
Decrease portion size of energy dense foods	Environmental restructuring	Physical opportunity

Table continued.

Economic interventions		
Proportional pricing strategies	Coercion	Reflective motivation
Shift balance of promotions from 'super-size' to 'mini-size'	Incentivisation	Reflective motivation
Political interventions		
Mandatory portion caps /supersize bans	Restriction	Physical opportunity

The COM-B model and intervention function matrix (Table 2.3, p116) can also be applied to the research literature to identify potentially useful intervention functions. An example is the provision of preventive anti-retroviral medication (Table 2.6). Although there is good evidence that providing pre-exposure anti-retroviral medication to HIV-negative individuals protects against HIV infection, it is rarely prescribed. Factors militating against this prescribing can be summarised as: health professionals' lack of awareness of preventive anti-retroviral medication [58, 59]; health professionals being unconvinced about the effectiveness of this medication to prevent infection [59-61]; concerns about side-effects [60-63], stigmatisation [59] and cost [59-61]. These can be coded using COM-B and TDF to identify relevant intervention functions to apply to increasing prescribing anti-retroviral medication to HIV-negative individuals (Table 2.6).

Table 2.6 Barriers to preventive anti-retroviral medication prescribing linked to COM-B, TDF and intervention functions

COM-B	Barrier	TDF	Intervention functions
Psychological capability	Knowledge	Lack of awareness of pre-exposure anti-retroviral medication	Education
Reflective motivation	Beliefs about consequences	Lack of conviction about the effectiveness of this medication to prevent infection. Concerns about side-effects and stigmatisation	Education Persuasion Modelling
Physical opportunity	Environmental context and resources	Concerns about cost	Restriction Environmental restructuring Enablement

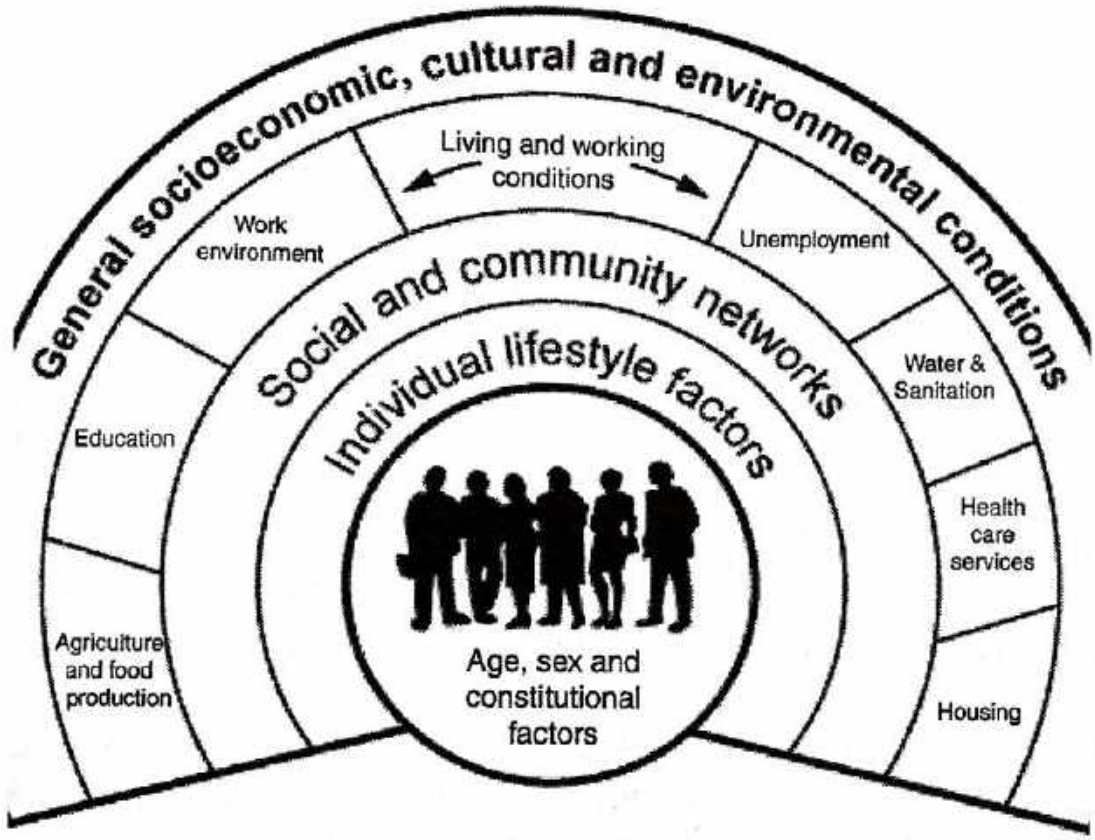
Using the matrix we can move from understanding the behaviour (prescribing pre-exposure anti-retroviral medication) to selecting intervention functions of education, persuasion, modelling, restriction, environmental restructuring and enablement.

Deciding who to target with the intervention: individual, group or population?

Individual behaviour is influenced by social opportunity in the form of immediate social contacts and wider cultural norms (Figure 2.1). The BCW goes beyond this in recognizing the importance of groups and populations by allowing all the parameters to be specified at group or population level. Thus if you are seeking to change the behaviour of populations, you can specify that behaviour in population terms (e.g. in terms of the proportion who smoke cigarettes, exceed the speed limit on motorways, drink above recommended limits etc.). If you are seeking to change the behaviour of individuals or groups you can specify the behaviour at that level (e.g. increasing the mean number of hours per week spent at the gym). With advances in technology, some of the defining features of 'individual-level' interventions can be applied to whole populations and so the 'individual/population' distinction breaks down.

For example, internet-based interventions that can be accessed by an entire population can be individually tailored and use BCTs that would previously have required human intervention.

Figure 2.1 Individual, community and population-wide influences on health [64]



When dealing with populations rather than individuals, it is important to recognise that members of the population will differ in terms of what is required to achieve the target behaviour and many of them will be doing any given behaviour already. This raises issues about whether and how much to target subgroups, and what scope there might be for tailoring to individuals. If tailoring is not possible, then choices have to be made about what intervention strategy will have the greatest aggregate effect while minimising any adverse effects. For example, evidence clearly indicates that raising price and restricting availability reduce excessive alcohol consumption and

antisocial behaviours arising from this, including violence and reckless behaviour leading to accidents. However, there is a cost to 'responsible drinkers' and this has hitherto been used as an argument against such measures in favour of more targeted interventions and educational campaigns that have thus far shown little or no benefit.

How to identify intervention functions - completing Worksheet 5

Worksheet 5 guides you in the first step of designing the intervention. Having identified which COM-B components and possibly which domains of the TDF are relevant to the target behaviour, designers can select relevant intervention functions based on links between the two shown in Table 2.3 (p116).

Using the example of hospital staff cleaning hands using alcohol gel the following COM-B components (and theoretical domains) were identified as relevant:

- Psychological capability (knowledge; memory, attention and decision processes, behavioural regulation)
- Social opportunity (social influences)
- Reflective motivation (beliefs about capabilities)
- Automatic motivation (reinforcement)

Tables 2.2 and 2.3 guide the selection of the following candidate intervention functions:

- Education to bring about a change in psychological capability (knowledge);
- Training, environmental restructuring and enablement to bring about a change in psychological capability (memory, attention and decision processes);
- Education, training, modelling and enablement to bring about a change in psychological capability (behavioural regulation)
- Restriction, environmental restructuring, modelling or enablement to bring about change in social opportunity (social influences);
- Education, persuasion, modelling and enablement to bring about a change in reflective motivation (beliefs about capabilities)
- Training, incentivisation, coercion and environmental restructuring to bring about change in automatic motivation (reinforcement).

Be comfortable using judgement

Identifying intervention functions and, as you will see in the next three steps, identifying policy categories, BCTs and mode of delivery requires you to use judgement as to what is most appropriate for the context. The APEASE criteria are suggested to help you make strategic judgements as to what might be most appropriate for the intervention.

We now consider each of the candidate intervention functions using the APEASE criteria (Table 1, p23) to guide our judgement in selecting the most appropriate intervention function (Box 2.1):

Box 2.1 Example of a completed Worksheet 5

Candidate intervention functions	**Does the intervention function meet the APEASE criteria (affordability, practicability, effectiveness/cost-effectiveness, acceptability, side-effects/safety, equity) in the context of cleaning hands using alcohol gel?**
Education	Not practicable as there is not enough time to take staff off wards to educate them
Persuasion	Unlikely to be effective as most staff intend to clean their hands this intervention function is unlikely to add value
Incentivisation	Yes
Coercion	Not acceptable to staff
Training	Not practicable as there is not enough time to take staff off wards to train them
Restriction	Not practicable as there are no options to restrict in this context
Environmental restructuring	Not practicable to restructure the environment so senior doctors are seen more frequently cleaning their hands to bring about change in social opportunity
Modelling	Not practicable to deliver in this context
Enablement	Yes
Selected intervention functions:	Incentivisation and enablement

Having applied these criteria to consider each candidate intervention function, two are selected, 'incentivisation' and 'enablement'.

Now it's your turn!
Please complete Worksheet 5

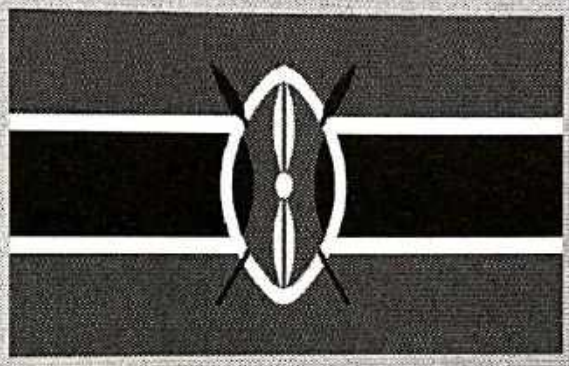
If you have access to policy levers

Intervention designers who have access to policy levers should go to Step 6, selecting policy categories, before selecting BCTs and specifying mode of delivery. Designers limited to a specific policy lever are directed to Step 7 to identify BCTs.

Case study examples of using the BCW to design interventions

The BCW can be applied as framework for intervention design in a wide range of contexts. Box 2.2 shows two examples of how the BCW can be used to develop complex, multi-level interventions and tailored interventions.

Box 2.2 Using the BCW to design interventions



Designing complex interventions: Improving Delivery of Paediatric Services in Kenyan Hospitals – The basis for a contextually appropriate intervention strategy and an approach to evaluation [65].

Aim: To promote adherence to evidence-based guidelines for paediatric services in Kenyan hospitals.

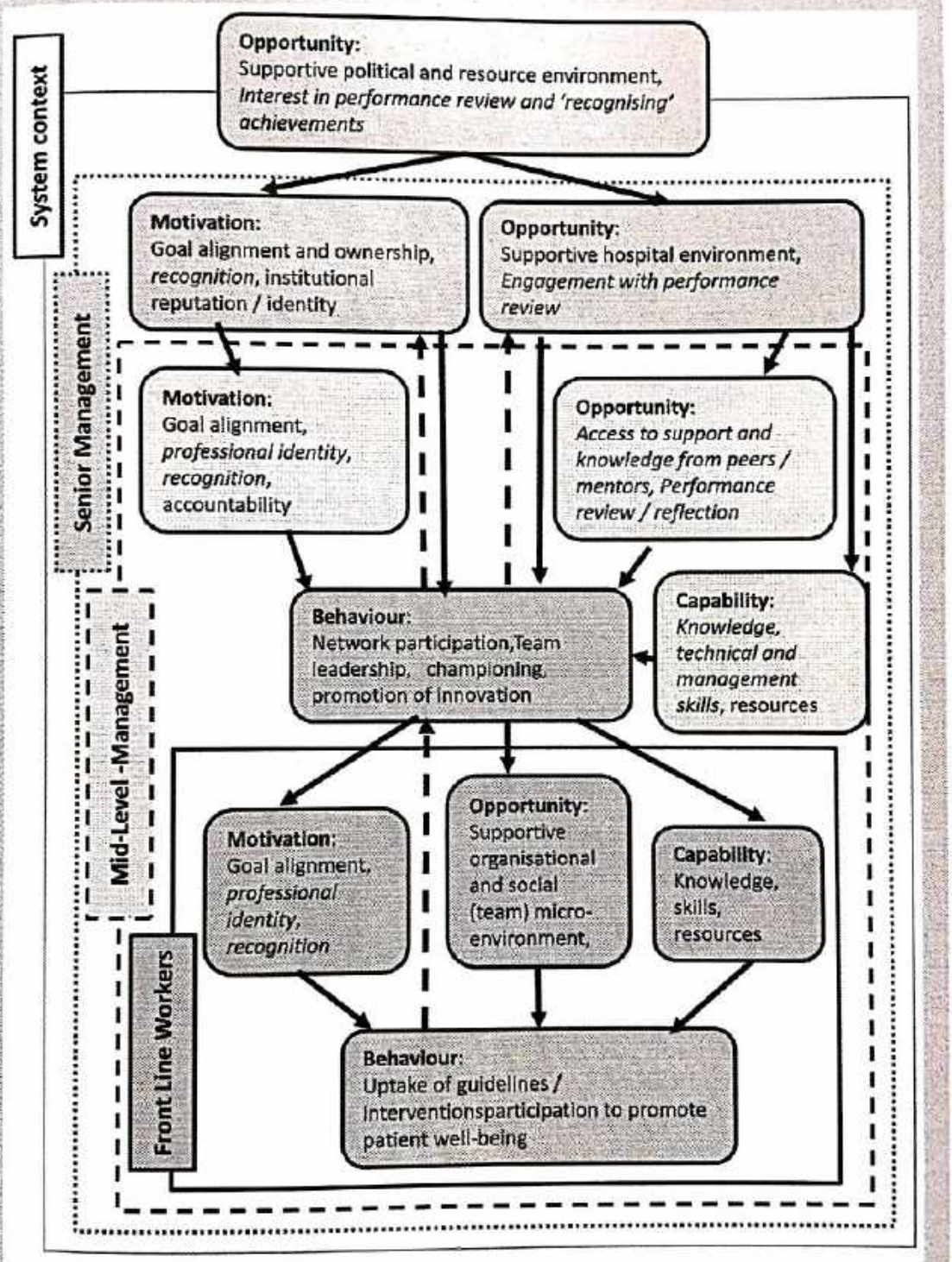
Method: Evidence in research literature, and government and hospital reports, were investigated to identify factors influencing the low uptake of evidence-based guidelines for paediatric services at the organisational level (senior and mid-management) and amongst front-line health care professionals. Influential factors were coded according to components of the COM-B model (see Figure 2.2 below) from which appropriate intervention functions of the BCW were selected.

Box continued.

Results: Factors influencing guideline uptake were (i) for senior managers, opportunity in the form of a supportive political environment and appropriate funding and motivation in the form of accountability to staff and institutional reputation, (ii) for mid-managers, having the relevant management skills ('capability') and professional identity ('motivation'), (iii) for front-line staff, having the necessary knowledge of guidelines and skills to carry out recommendations in guidelines ('capability'), having a supportive team and the right physical environment to work in ('opportunity') and perceiving carrying out the recommendations in guidelines as part of their role ('motivation'). From this behavioural analysis the following intervention functions were selected:

- 'Education' (improving knowledge and understanding of roles and responsibilities for key professionals responsible for service provision and improving technical knowledge through a community of practice
- 'Training' (providing key professionals with core skills in management and leadership)
- 'Persuasion' (developing monitoring and evaluation approaches for feedback to hospitals and policy makers on guideline implementation within network hospitals)
- 'Incentivisation' (recognition of achievements within networks and professions)
- 'Environmental restructuring' (promoting reflection on environmental and organisational aspects of service provision)
- 'Modelling' (discussion of identified successful strategies for change within network)
- 'Enablement' (promoting collective action across network to overcome barriers to improving care).

Figure 2.2 Using COM-B to understand multi-level behaviours in a hospital context



Box continued.

Designing tailored interventions: Promoting adherence to guidelines for post-natal depression [66]

Aim: To design, implement and evaluate a tailored intervention to promote primary health care professionals' adherence to an evidence-based guideline recommendation that women with mild to moderate postnatal depression are referred for psychological therapy as a first stage treatment.

Method: Three factors, identified by questionnaires and interviews, were found to influence primary care referrals for psychological therapy. These were coded using the COM-B model and linked to intervention functions using the matrix in Table 2.3 (p116).

Results: The three factors influencing adherence to the recommendation were:

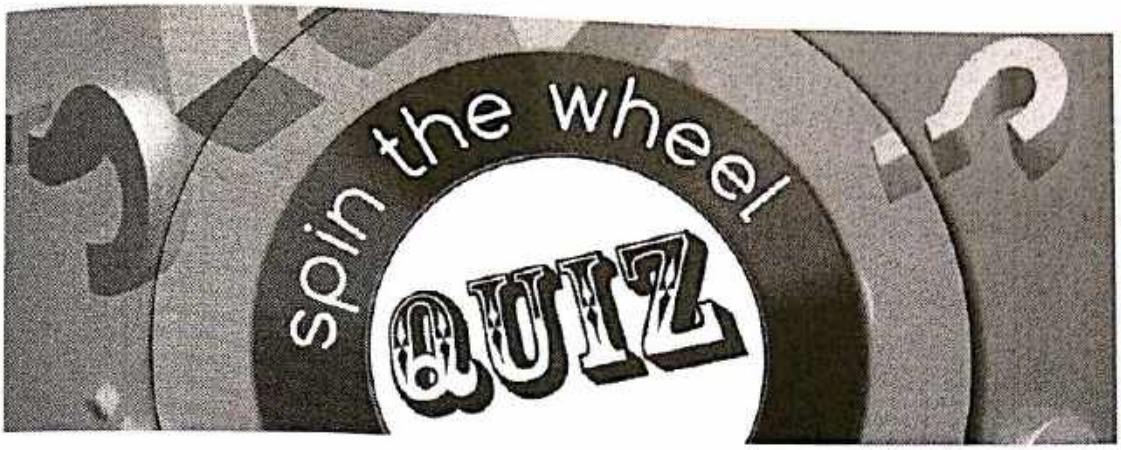
Factor 1: Awareness of guidelines

Factor 2: Awareness of local expertise in the treatment of post-natal depression

Factor 3: Skills to manage patient expectations of treatment such as being immediately prescribed an anti-depressant

Using the COM-B model, Factors 1 and 2 were coded as 'capability' and linked to intervention functions 'education', 'training' and 'enablement'. In the intervention these functions were served through (i) tailored educational materials and meetings about the evidence for psychological therapies and availability of local services and (ii) reminders on electronic patient records in the form of a summary of the recommendation. Factor 3 was coded as 'opportunity' which is linked to 'environmental restructuring', 'restriction', and 'enablement' intervention functions.

Conclusions: This case study demonstrates how the BCW can be used to develop interventions tailored to local circumstances.

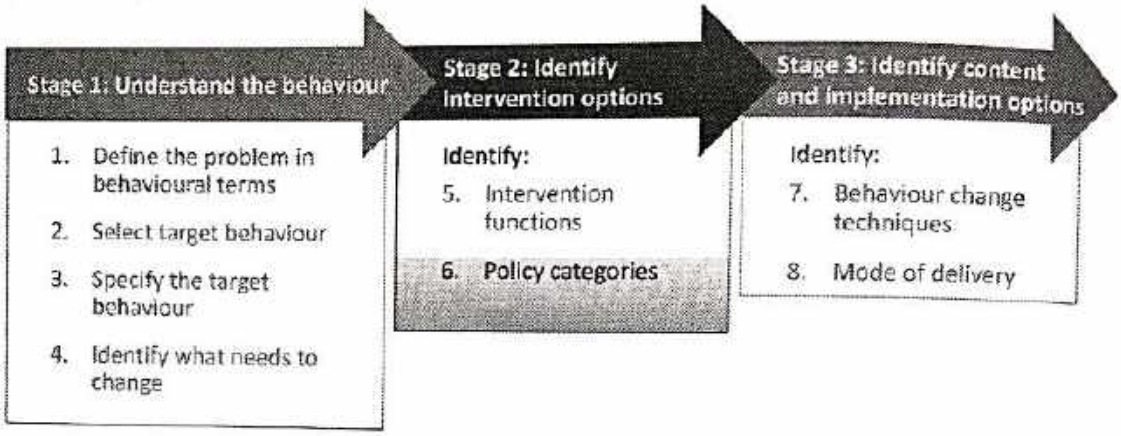


Test your knowledge of intervention functions with the Spin the Wheel Quiz!

Which intervention functions do you think the following are examples of (answers in Appendix 3)?

1. Providing information on benefits of physical activity.
2. Fines for the possession of solvents.
3. Creating a rewards system for GPs who ask about smoking behaviour.
4. Telling drinkers if they drink to excess they will be viewed negatively by their peers.
5. A lecture about safe driving.
6. Using TV advert to encourage condom use.
7. Providing cooking lessons.
8. Supporting GPs to recognise the symptoms ovarian cancer with an information pamphlet.
9. Using positive images of non-smokers to encourage smokers to quit.

Step 6: Identify policy categories



The next step in developing an intervention strategy is to consider what policies would support the delivery of the intervention functions identified in Step 5. In synthesising the 19 frameworks, seven policy categories were identified, representing types of decisions made by authorities that help to support and enact the interventions: 'Communication/marketing' (using print, electronic, telephonic or broadcast media); 'guidelines' (creating documents that recommend or mandate practice, this includes all changes to service provision); 'fiscal' (using the tax system to reduce or increase the financial cost); 'regulation' (establishing rules or principles of behaviour or practice); 'legislation' (making or changing laws); 'environmental/social planning' (designing and/or controlling the physical or social environment); 'service provision' (delivering a service) (definitions and examples are given in Table 2.7).

Table 2.7 BCW policy categories

Policy Category	Definition	Example
Communication/ marketing	Using print, electronic, telephonic or broadcast media	Conducting mass media campaigns
Guidelines	Creating documents that recommend or mandate practice. This includes all changes to service provision	Producing and disseminating treatment protocols
Fiscal measures	Using the tax system to reduce or increase the financial cost	Increasing duty or increasing anti-smuggling activities
Regulation	Establishing rules or principles of behaviour or practice	Establishing voluntary agreements on advertising
Legislation	Making or changing laws	Prohibiting sale or use
Environmental/ social planning	Designing and/ or controlling the physical or social environment	Using town planning
Service provision	Delivering a service	Establishing support services in workplaces, communities etc.

How to identify policy categories

The BCW suggests which policy categories are likely to be appropriate and effective in supporting each intervention function (Tables 2.8 and 2.9).

Table 2.8 Linking BCW intervention functions to policy categories

Intervention function	Policy categories that could deliver intervention functions
Education	Communication/marketing Guidelines Regulation Legislation Service provision
Persuasion	Communication/marketing Guidelines Regulation Legislation Service provision
Incentivisation	Communication/marketing Guidelines Fiscal measures Regulation Legislation Service provision
Coercion	Communication/marketing Guidelines Fiscal measures Regulation Legislation Service provision

Training	Guidelines Fiscal measures Regulation Legislation Service provision
Restriction	Guidelines Regulation Legislation
Environmental restructuring	Guidelines Fiscal measures Regulation Legislation Environmental/social planning
Modelling	Communication/marketing Service provision
Enablement	Guidelines Fiscal measures Regulation Legislation Environmental/social planning Service provision

Table 2.9 Matrix of links between intervention functions and policy categories

Policy Categories	Intervention functions								
	Education	**Persuasion**	**Incentivisation**	**Coercion**	**Training**	**Restriction**	**Environmental restructuring**	**Modelling**	**Enablement**
Communication/ marketing	■	■	■	■				■	
Guidelines	■	■	■	■	■	■	■		■
Fiscal measures			■	■	■		■		■
Regulation	■	■	■	■	■	■	■		■
Legislation	■	■	■	■	■	■	■		■
Environ./ Social planning							■		■
Service provision	■	■	■	■	■			■	■

Having identified the potential policy categories to use, they can be considered using the APEASE criteria set out in Table 1 (p23). In terms of considering evidence, it would be reasonable to give greatest weight to high quality field experiments in the target population concerned addressing the behaviour in question, if available. One should give progressively less weight to studies with lower degrees of experimental control, weaker outcome measures, smaller sample sizes, populations that differ from the target population, contexts that differ from the one in question and behaviours that differ from the target behaviour.

How to identify policy categories – completing Worksheet 6

Continuing the example of cleaning hands using alcohol gel, we have identified the functions that the intervention should serve. The next step is to consider the policy categories that might support the delivery of the intervention functions; in this case, incentivisation and enablement have been selected as the most appropriate based on consideration of the APEASE (Table 1, p23) (Table 2.10).

Table 2.10 Example of a completed Worksheet 6

Intervention function	COM-B component	Potentially useful policy categories	Does the policy category meet the APEASE criteria (affordability, practicability, effectiveness/ cost-effectiveness, acceptability, side-effects/safety, equity) in the context of cleaning hands using alcohol gel?
Incentivisation	Reflective motivation Automatic motivation	Communication/ marketing	Yes
		Guidelines	Unlikely to be effective (add value) as guidelines around hand hygiene already exist
		Fiscal measures	Not relevant in the hospital context
		Regulation	Possible in the long term but not present
		Legislation	Not practicable in the hospital context
		Service provision	Yes
Enablement	Psychological capability Social opportunity Automatic motivation	Guidelines	As above
		Fiscal measures	As above
		Regulation	As above
		Legislation	As above
		Environmental/ social planning	Not practicable in this context
		Service provision	Yes
Policy category selected: Communication/marketing and service provision			

Now it's your turn!
Please complete Worksheet 6

Case study example of using the BCW to describe policy and guidelines

Box 2.3 shows how the BCW can be used to describe policy and guideline content.

Box 2.3 Using the BCW to describe intervention functions and policy categories in the English Tobacco Control Strategy and NICE Guidance on Obesity [1]

Aim: To test the extent to which intervention functions and policy categories can be used to describe the function and delivery of recommendations for good practice.

Method: The architects of the BCW, Professors Susan Michie and Robert West, independently coded 24 components in the 2010 English Tobacco Control Strategy [67] and 21 components in NICE Guidance on Obesity [68] into intervention functions and policy categories. For example, in the 2010 English Tobacco Control Strategy the recommendation 'remove tobacco products from display in shops' was coded as serving the intervention function 'environmental restructuring' and the policy category 'legislation'.

The level of agreement between coders was calculated and differences were resolved. A second set of coders, the Policy Lead for implementation of the 2010 English Tobacco Control Strategy and a tobacco researcher independently coded the 24 components in the 2010 English Tobacco Control Strategy.

Results: There was good agreement allowing this approach to reliably describe the functions and policy categories of these two national strategies and guidelines. Initial coding of the intervention functions and policy categories resulted in 88% agreement for the 24 components in the 2010 English Tobacco Control Strategy and 79% agreement for the 21 components in the NICE Obesity Guidance. The second coding of the 24 components in the 2010 English Tobacco Control Strategy resulted in 85% agreement with this consensus and Policy Lead and 75% agreement between the consensus and the tobacco researcher.

This illustrates the application of the BCW as a useful tool to describe recommendations in policy documents and evidence-based guidelines.