

Behavioural science

What behavioural science is and how it can be applied to complex behavioural issues.

First published 5 July 2024

Behavioural science studies how people act by collecting and analysing data to draw broad conclusions, develop theories and make predictions. It combines insights from disciplines such as psychology, sociology, economics and neuroscience (Hagger and others, 2020).

By understanding when and why people act in a certain way, targeted and effective interventions can be designed to change behaviour. Behavioural science has been successfully applied to complex behavioural issues like unhealthy diets, sedentary lifestyles and smoking.

There are dozens of models and theories connected to field of behavioural science. This piece of work used the behaviour change wheel (BCW) as the underpinning framework (Michie and others, 2014).

The BCW is a synthesis of 19 behavioural science frameworks from many disciplines and sectors. It offers a systematic, step-by-step approach to understanding complex problems and developing system level interventions to change behaviour. Each step draws on multiple sources of evidence including academic research, practitioner evidence and lived experienced.

Steps in the process

Step one – identify and select target behaviours

- Define problem and desired outcome.
- Generate long list of behaviours.
- Select target behaviours.
- Specify target behaviours.

At the start of any behaviour change project, a problem will be presented that needs to be understood in behavioural terms. This involves identifying the behaviours associated with the problem and who is doing them.

There can be hundreds of behaviours connected to a particular problem. A prioritisation process therefore needs to happen to decide which behaviours will be the target for change.

Behaviours can be prioritised based on which ones are likely to have the greatest impact on the desired outcome. For example, which changed behaviours are most likely to reduce sexism and misogyny within policing contexts.

Step two – undertake a behavioural diagnosis

- Identify COM-B influences.
- Select influences to target.

Once target behaviours have been selected, the next step is to ‘diagnose’ what is preventing or enabling them to occur (influences on behaviour). Doctors would not usually prescribe a treatment for a patient without first diagnosing the condition. In the same way, professionals seeking to address behavioural problems need to find out what underlies these before designing interventions.

The COM-B (capability, opportunity, motivation, behaviour) model is used to structure the diagnosis. It notes that for any behaviour to occur, the person must:

1. be psychologically and physically capable of doing it (including a person’s understanding, confidence, skills and agility)
2. have the physical and social opportunity to do it (including time, and resources, as well as social support and cultural norms)
3. be more motivated to do that thing at that moment than any other competing behaviour (including a person’s values, intentions, desires and habits)

Relevant theories of human behaviour should be reviewed during the diagnosis stage. For example, theories of social identity suggest that people can do things to fit in with the group or conform to socially prescribed roles (Tajfel and others, 1979; Pitt and Fox, 2012).

At the end of this step, the influences on a given behaviour should be clearly understood and categorised as capability, opportunity and motivation.

Step three – design the interventions

- Map intervention types onto influences.

- Generate intervention ideas.
- Build packages of interventions.

In the BCW there are nine broad intervention types to choose from (see Table 1).

Some of the intervention types are better suited to certain COM-B influences than others. They should be selected on that basis – interventions should directly target what is preventing or enabling a behaviour.

For example, if the behavioural diagnosis identifies a skills deficit (capability) as a barrier to behaviour change, then a training intervention may be best placed to address it. If a lack of senior commitment is the problem (social opportunity), then a role-modelling intervention might be more suitable.

Intervention type	Definition and example	Example	Most relevant COM-B influence
Education	Informing or explaining to increase knowledge or understanding.	Providing information about the impact of misconduct on trust and confidence in policing.	<ul style="list-style-type: none"> • Capability • Motivation
Persuasion	Using communication or imagery to influence an emotional response.	Using survivor stories in communications campaigns.	Motivation
Incentivisation	Applying a positive outcome to a behaviour to influence motivation.	Commendations for those who have demonstrated outstanding courage.	Motivation

Intervention type	Definition and example	Example	Most relevant COM-B influence
Coercion	Applying an unwanted outcome to a behaviour to influence motivation.	Blocking career progression for those who fail to demonstrate inclusive leadership.	Motivation
Training	Using demonstration, feedback or practice to improve physical or psychological skills.	Interpersonal skills training for supervisors to learn how to manage misconduct.	<ul style="list-style-type: none"> • Capability • Motivation • Opportunity
Restriction	Using social rules to set limits around behaviour.	A requirement for compliance with the standards of professional behaviour.	<ul style="list-style-type: none"> • Motivation • Opportunity
Environmental restructuring	Changing the social or physical environment to influence opportunity.	Installing outdoor lighting to reduce the chance of sexual assault.	<ul style="list-style-type: none"> • Motivation • Opportunity
Modelling	Providing an example for people to imitate.	Senior staff sharing experiences of effectively challenging unacceptable behaviour at work.	<ul style="list-style-type: none"> • Motivation • Opportunity

Intervention type	Definition and example	Example	Most relevant COM-B influence
Enablement	Providing support or resources (material or financial) to influence capability or opportunity.	Free advocacy service to support victims of misconduct.	<ul style="list-style-type: none"> • Capability • Motivation • Opportunity

Most interventions designed to change behaviour draw on multiple intervention types.

For example, a mass media campaign on crime reduction may use a combination of education, modelling and persuasion. Hostage negotiation skills training may use a combination of training, education and modelling.

Step four – implement and evaluate change

- Prioritise implementation options across multiple levels.
- Develop implementation and evaluation plans.

The last step involves preparing for implementation. The way an intervention is implemented depends on the organisation's resources, remit, and infrastructure. For example, educational material about how sexism manifests in police contexts could be shared via guidelines, a communications campaign or in face-to-face sessions. The evidence may suggest that face-to-face sessions are most effective, yet the organisation would need to consider whether this is a feasible route to implementation.

Once implementation options have been agreed and specified, plans for piloting and evaluating the interventions can be devised. Only through effective evaluation is it possible to say whether an intervention has successfully changed behaviour.

References

- Hagger, M. S., Cameron, L. D., Hamilton, K., Hankonen, N., & Lintunen, T. (Eds.). (2020). *The handbook of behavior change*. Cambridge University Press.

- Michie, S., Atkins, L., & West, R. (2014). The behaviour change wheel. A guide to designing interventions. 1st ed. Great Britain: Silverback Publishing, 1003, 1010.
- Pitt, S. L., & Fox, C. A. (2012). Performative masculinity: A new theory on masculinity. In Masculinity/Femininity: re-framing a fragmented debate (pp. 37-46).
- Tajfel, H., Turner, J. C., Austin, W. G., & Worchel, S. (1979). An integrative theory of intergroup conflict. *Organizational identity: A reader*, 56(65), 9780203505984-16.

Tags

Violence against women and girls