

The RANAS model of behaviour change

The RANAS model of behaviour change presents a holistic theoretical model of human behaviour change, developed based on scientific evidence.

RANAS stands for: **Risks, Attitudes, Norms, Abilities and Self-regulation**. These five blocks of behavioural factors are at the core of the RANAS model.

Next to those behavioural factors, the model has three more components: **Behaviour Change Techniques (BCTs)** that correspond to the five factor blocks, **behavioural outcomes**, and **contextual factors**.

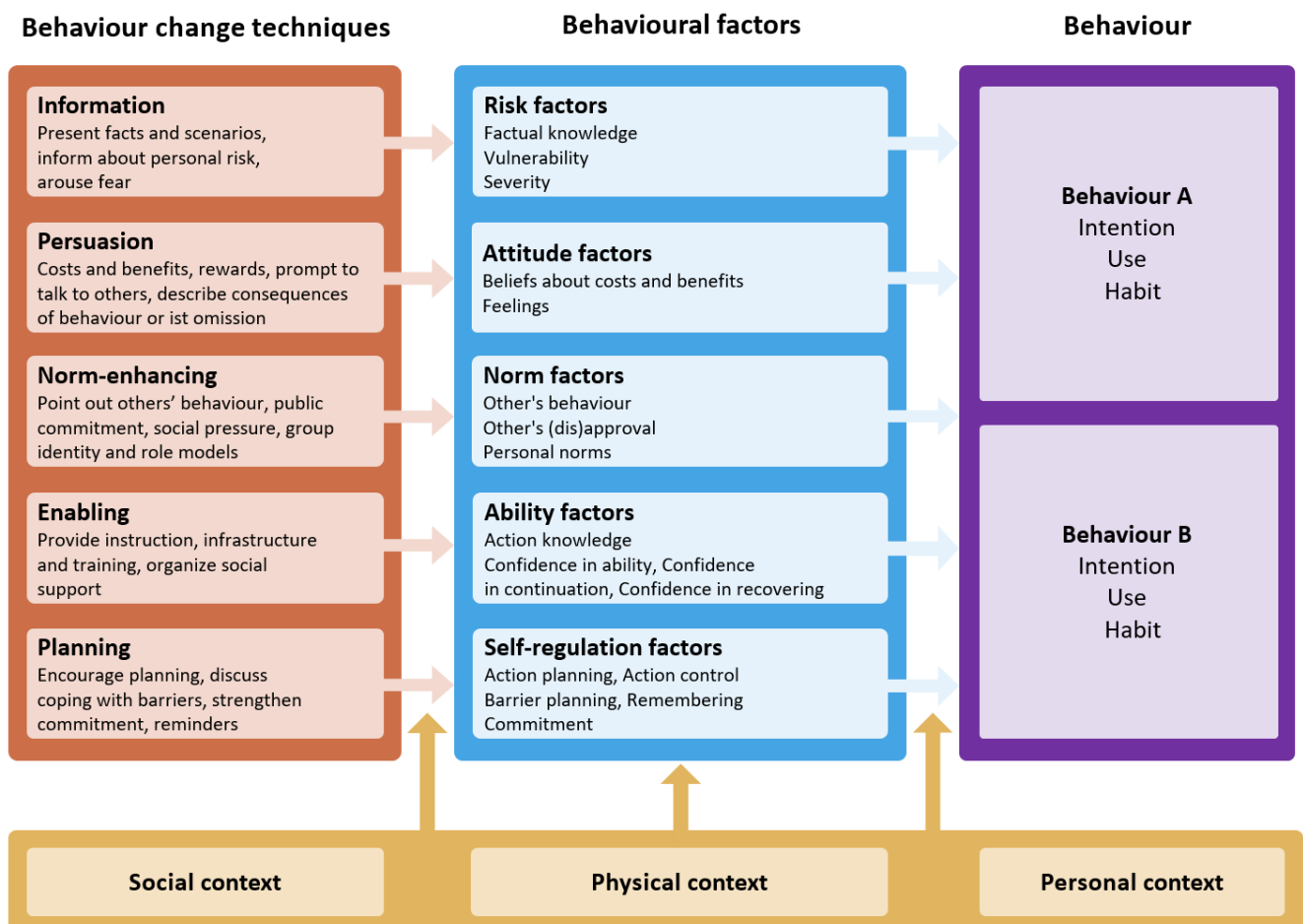
This fact sheet outlines the factor blocks and corresponding BCTs, the behavioural outcomes, and the contextual factors. More detailed descriptions of all behavioural factors and the BCTs are presented in Method Fact Sheets 3 and 4.

Behavioural factor blocks and BCTs

The first factor block comprises the **risk factors**, which represent a person’s understanding and awareness of the health risk. **Information BCTs**, such as the presentation of facts or risk information, can be applied to target them.

Attitude factors appear in the second block. They are a person’s positive or negative stance towards a behaviour and can be addressed through **persuasive BCTs**.

Norm factors form the third block; they represent the perceived social pressure towards a behaviour and are targeted through **norm-enhancing BCTs**.



The **ability factors** form the fourth block. They represent a person’s confidence in their ability to practice a behaviour and are targeted through **enabling**: infrastructural, skill, and ability BCTs.

Self-regulation factors form the last block. They represent a person’s attempts to plan and self-monitor a behaviour and to manage conflicting goals and distracting cues. **Planning** and relapse prevention BCTs can be applied to change them.

Behavioural outcomes

All the behavioural factors together determine the behavioural outcomes. The RANAS model considers three behavioural outcomes: **behaviour**, **intention**, and **habit**.

Behaviour refers to the execution of actions. It can be the use of or doing something, e.g. using soap or separating waste. Both, the target behaviour and competing behaviours, must be considered – for example, not only drinking safe water (Behaviour A, target behaviour) but also drinking untreated water (Behaviour B, competing behaviour). **Intention** represents a person’s willingness to practice a behaviour: how willing is a person to execute something. **Habits** are routinized behaviours that are executed in specific, repeating situations nearly automatically and without any cognitive effort. The table below shows some example questions to measure the behavioural outcomes.

Contextual factors

Behaviour and its influencing behavioural factors are embedded in a context.

The contextual factors can be divided into three categories: the **social**, the **physical**, and the **personal** context. The social context is constituted by culture and social relations, laws and policies, economic conditions, and the information environment. The physical context consists of the natural and built environment. Finally, the personal context is formed by socio-demographic factors such as age, sex, and education and by the physical and mental health of the person.

According to the RANAS model, contextual factors influence behaviour in three ways:

First, they may alter the BCTs’ influence on behavioural factors. For instance, an information BCT, providing detailed medical information on infectious diseases and the necessity of handwashing, may increase health knowledge and perceived vulnerability for a highly educated person but be ineffective for an illiterate person or a child who is overchallenged by the used technical terms and complex interrelations.

Second, they may affect behaviour by changing the behavioural factors. For example, a person with low income might perceive organic food to be very expensive while a person with high income perceives it as cheap.

Third, they may alter the behavioural factors’ influence on behaviour. For instance, a person might be strongly committed to using public transport, but the commitment may not translate into behaviour due to a bad bus connection to their workplace.

Example questions to measure behavioural outcomes. Responses are given on a 5-point Likert scale.

Behavioural outcome	Example question
Behaviour (frequency)	How much of your household's drinking water do you treat with chlorine?
Intention	How strongly do you intend to treat all your drinking water with chlorine?
Habit (automaticity)	How automatically do you treat your drinking water with chlorine?

Further information & contact: www.ranas.ch; info@ranas.ch

Authors: Contzen, N., Friedrich, M., Gamma, A., Harter, M., Mosler, H.-J., Palacios, S., Slekiene, J., Tamas, A.

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