**Supplementary File 1: WS1a coding framework for specifying the content and characteristics of existing A&F reports from the National Comparative Audit of Blood Transfusion**

1. **General Document Characteristics**
2. **Document ID Number:**

(e.g. A1D01)

1. **Document Title:**
2. **Type of document:** Main findings report/ Summary report/ Presentation/ Action plan/ Other:
3. **Audit** **name:**
4. **Date of Document (i.e. dd/mm/yy if possible or just year):**
5. **Coding Progress/ Data Extraction:**

a. **Coder 1 Name**:

**b. Date Coding 1:**  / /

c. **Time taken to code:**

**d. Is this document to be double coded?** Yes / No

**e.** **If yes,** **Coder 2 name:**

**f.** **Date**: / /

**g**. **Time taken to code:**

**h.** **Inter-rater reliability results: Cohen’s Kappa** =

**General characteristics:**

1. **Month/Year data collected:**
2. **Month/Year feedback delivered:**
3. **Number of times feedback delivered:**
4. **Audit sample size: n= sites; n= [patients]**

**Behavioural Specification of Audit Standards**

1. **Does the document clearly state the audit standards (i.e. which specific target behaviours are being examined in the audit)?**

Yes / No / Unclear

1. **If yes, What is the total number of audit standards being examined: n =**

*(If feedback focuses on more than one behaviour, state how many behaviours are examined in total, e.g. five)*

1. **Where in the document are the target behaviours being examined first stated?: /**

(*State the page number out of total number of pages)*

**Behavioural specification of the audit standards (i.e. the target behaviours being examined in the audit ):**

|  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **aStandard/ Target of Audit** | **cActor** | | **cAction** | | **cContext** | | **cTimeframe** | | **dTarget** | | **eLevel**  **(1=Individual/**  **2=Group/**  **3=Unclear)** | **fMode of Delivery**  **1= Written**  **2= Visually/ Graphically**  **3= Both** |
| State Actor | Presented Alongside Standard or Elsewhere in Document? (1/2) | State Action | Presented Alongside Standard or Elsewhere in Document? (1/2) | State Context | Presented Alongside Standard or Elsewhere in Document? (1/2) | State Timeframe | Presented Alongside Standard or Elsewhere in Document? (1/2) | State Target | Presented Alongside Standard or Elsewhere in Document? (1/2) |
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| *Add rows as needed* |  |  |  |  |  |  |  |  |  |  |  |  |

*a* List each of the **audit standards (i.e. target behaviours) as** stated in the audit documents; i.e. copy and paste directly, verbatim *(e.g. A pre-transfusion Hb is taken in 100% of patients within three days of the transfusion, preferably the same day).*

bState whether the audit standard is specified (i.e. phrased) explicitly in terms of a behaviour *(e.g. 1=****Yes****: A pre-transfusion Hb is taken in 100% of patients within three days of the transfusion, preferably the same day; 2=****No****: No non-radiotherapy patients should have a pre-transfusion Hb>10g/dl).*

cDescribe the behaviour(s) using the **AACTT principle**: Actor, Action, Context, Timeframe, Target; *(e.g. consider the behaviour ‘referring patients with back pain for a lumbo-sacral spine x-ray,’ here Target = the patient, Action = referral, Context= the clinical condition, back pain, Timeframe = is implicitly during the consultation);* state whether this information is presented alongside the standard *(i.e. in the phrasing of the standard itself)* or elsewhere in the audit document *(i.e. the type of patient being transfused- the Target, is described in the audit methods section rather than in the standard/target behaviour itself).*

dState the ‘Actor’ of the standard/target behaviour (i.e. the person acting the target behaviour, e.g. *The blood transfusion practitioner taking a pre-transfusion Hb reading*)

eSelect whether the behaviour is relates to the **individual** level, *e.g. each GP’s prescribing or test ordering;* or **group**level*, e.g. vaccination of 90% of eligible children in a GP practice- depends on multiple health care professionals within practice*.

f State what mode the audit standards are presented in

**Feedback Recipients**

1. **Is it clear whose behaviour the feedback is aimed at?**

Yes / No / Unclear

(*Select whether the feedback document clearly and explicitly specifies whose behaviour (i.e. which HCPs) the feedback is aimed at/targeting).*

1. **Describe whose behaviour the feedback is aimed at (i.e. which HCPs**):

(*If clear, list whose behaviours (i.e. which HCPs) the feedback document is aimed at)*

**Feedback Providers**

1. **Is it clear who/what the source of feedback/ provider is**?

(*State whether it is clear what or who the source of feedback is)*

Yes / No / Unclear

1. **If yes, describe the source/provider of feedback:**

**Feedback Content and Characteristics:**

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **aPage number** | **bSummary feedback item** | **cDoes feedback item explicitly relate to an audit standard? (1=Yes**  **2=No**  **3= Unclear)** | **dIf yes, which standard(s)?** | **eFeedback level (1= Individual HCP; 2= unit/ward/ clinical specialty; 3= Hospital/ organisation; 4= National(** | **fDescribe the comparator**  **(0= none**  **1= peer performance**  **2= audit standard**  **3= achieveable benchmark of care**  **4= national performance)** | **Actorg** | **Actionh** | **Contexti** | **Timeframej** | **Targetk** | **Formatl**  **1= written**  **2= graphically/ visual** |
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| *Add rows as needed* |  |  |  |  |  |  |  |  |  |  |  |

a State the page number in the document where each individual feedback item is located

b Provide a summary of each new feedback item (i.e. copy and paste if possible directly from audit document or summarise if needed, e.g. graphs)

c State whether each feedback item relates clearly to one of the audit standards (i.e. target behaviours) (Yes or No); e.g. A graph of the number/% of patients who received a pre-transfusion Hb reading clearly relates to the standard: A pre-transfusion Hb will be taken in 100% of patients within three days of the transfusion.

d If yes, state which standard the feedback item relates to (see example above).

e State what level the feedback item is aimed at (i.e. individual vs group)

f State whether an explicit comparison between the feedback recipient’s behaviour and a comparator

g -kDescribe the behaviour(s) using the **AACTT principle**: Actor, Action, Context, Timeframe, Target; *(e.g. consider the behaviour ‘referring patients with back pain for a lumbo-sacral spine x-ray,’ here Target = the patient, Action = referral, Context= the clinical condition, back pain, Timeframe = is implicitly during the consultation);*

L Describe what format the feedback item is delivered in (i.e. written feedback, graphs, tables)

**What proportion (%) of total feedback items clearly relate to an audit standard/target behaviour?: %**

(e.g. *There were 24 unique feedback items in the document, 6 related clearly to one of the audit standards, therefore 25% of feedback items clearly related to an audit standard*)

1. **BCT Content Coding**

(*For each BCT state whether it is present or absent in the entire feedback document (1= present, 0= absent); For* ***each instance*** *in which each BCT is identified first list the page number where the BCT was found, followed by the mode in which the BCT was delivered in the given instance (1= written text, 2= graphically/visually); Copy and paste exemplary quotes from the document for each instance the BCT was identified in; indicate with a + or ++ how confident you were of the BCT identification in each instance; List which audit standard each instance of BCT identification relates to; Keep a frequency count of the number of instances each BCT is identified in the document, at the end of coding, write the total frequency; note any potential comments or uncertainties in final column).*

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **BCT label** | **BCT**  **Definition** | **Present/**  **Absent (1/0)** | **Page number** | **Mode of delivery (1= written; 2= visual/ graphically)** | **Extracted quote** | **Confidence**  **Less = +**  **More= ++** | **Standard related to (***list standard; if not related to standard state ‘none’***)** | **Total frequency** | **Comments** |
| EXAMPLE | EXAMPLE BCT | 1 | p.2 | 1 | ‘here is quote of instance 1’ | + | Standard 1: pre-transfusion Hb taken in 100% cases | 2 |  |
| p.3. | 2 | ‘here is quote of instance 2’ | ++ | Standard 2: post-transfusion Hb taken in 100% cases |
| 1. **Goals and Planning** | | | | | | | | | |
| ***Goal setting (behavior)*** | Set or agree on a goal defined in terms of the behavior to be achieved  *Note: only code goal-setting if there is sufficient evidence that goal set as part of intervention;* *if goal unspecified or a behavioral outcome, code* ***1.3, Goal setting (outcome)****; if the goal defines a specific context, frequency, duration or intensity for the behavior, also code* ***1.4, Action planning*** |  |  |  |  |  |  |  |  |
| ***Problem solving*** | Analyse , or prompt the person to analyse, factors influencing the behavior and generate or select strategies that include overcoming barriers and/or increasing facilitators (includes ‘**Relapse Prevention***’ and ‘***Coping Planning***’*)  *Note: barrier identification without solutions is not sufficient. If the BCT does not include analysing the behavioral problem, consider* ***12.3****,* ***Avoidance/changing exposure to cues for the behavior, 12.1, Restructuring the physical environment,******12.2,*** ***Restructuring the social environment,*** *or* ***11.2, Reduce negative emotions*** |  |  |  |  |  |  |  |  |
| ***Goal setting (outcome)*** | Set or agree on a goal defined in terms of a positive **outcome** of wanted behavior  *Note:* *only code guidelines if set as a goal in an intervention context; if goal is a behavior, code* ***1.1, Goal setting (behavior)****; if goal unspecified code* ***1.3, Goal setting (outcome)*** |  |  |  |  |  |  |  |  |
| ***Action planning*** | Prompt detailed planning of performance of the behavior (must include at least one of context, frequency, duration and intensity). Context may be environmental (physical or social) or internal (physical, emotional or cognitive)(includes *‘***Implementation Intentions***’*)  *Note: evidence of action planning does not necessarily imply goal setting, only code latter if sufficient evidence* |  |  |  |  |  |  |  |  |
| ***Review behavior goal(s)*** | Review behavior goal(s) jointly with the person and consider modifying goal(s) or behavior change strategy in light of achievement. This may lead to re-setting the same goal, a small change in that goal or setting a new goal instead of (or in addition to) the first, or no change *Note:**if goal specified in terms of behavior, code* ***1.5, Review behavior goal(s)****, if goal unspecified, code* ***1.7, Review outcome goal(s);*** *if**discrepancy created consider also* ***1.6, Discrepancy between current behavior and goal*** |  |  |  |  |  |  |  |  |
| ***Discrepancy between current behavior and goal*** | Draw attention to discrepancies between a person’s current behavior (in terms of the *form, frequency, duration, or intensity* of that behavior) and the person’s previously set outcome goals, behavioral goals or action plans (goes beyond self-monitoring of behavior)  *Note: if discomfort is created only code* ***13.3, Incompatible beliefs*** *and not* ***1.6, Discrepancy between current behavior and goal****;* *if goals are modified, also code* ***1.5, Review behavior goal(s)*** *and/or* ***1.7, Review outcome goal(s)****; if feedback is provided, also code* ***2.2, Feedback on behaviour*** |  |  |  |  |  |  |  |  |
| ***Review outcome goal(s)*** | Review outcome goal(s) jointly with the person and consider modifying goal(s) in light of achievement. This may lead to re-setting the same goal, a small change in that goal or setting a new goal instead of, or in addition to the first  *Note:* *if goal specified in terms of behavior, code* ***1.5, Review behavior goal(s)****, if goal unspecified, code* ***1.7, Review outcome goal(s);*** *if**discrepancy created consider also* ***1.6, Discrepancy between current behavior and goal*** |  |  |  |  |  |  |  |  |
| ***Behavioral contract*** | Create a written specification of the behavior to be performed, agreed on by the person, and witnessed by another  *Note:* *also code* ***1.1, Goal setting (behavior)*** |  |  |  |  |  |  |  |  |
| ***Commitment*** | Ask the person to affirm or reaffirm statements indicating commitment to change the behavior  *Note:* *if defined in terms of the behavior to be achieved also code* ***1.1, Goal setting (behavior)*** |  |  |  |  |  |  |  |  |
| 1. **Feedback and monitoring** | | | | | | | | | |
| ***Monitoring of behavior by others without feedback*** | Observe or record behavior with the person’s knowledge as part of a behavior change strategy  *Note: if monitoring is part of a data collection procedure rather than a strategy aimed at changing behavior, do not code; if feedback given, code only* ***2.2, Feedback on behavior****, and not* ***2.1, Monitoring of behavior by others without feedback****; if monitoring outcome(s) code* ***2.5, Monitoring outcome(s) of behavior by others without feedback****; if self-monitoring behavior, code* ***2.3, Self-monitoring of behaviour*** |  |  |  |  |  |  |  |  |
| ***Feedback on behavior*** | Monitor and provide informative or evaluative feedback on performance of the behavior *(e.g. form, frequency, duration, intensity)*  *Note: if Biofeedback, code only* ***2.6, Biofeedback*** *and not* ***2.2, Feedback on behavior****; if feedback is on* ***outcome(s)*** *of behavior, code* ***2.7, Feedback on outcome(s) of behavior****; if there is no clear evidence that feedback was given, code* ***2.1, Monitoring of behavior by others without feedback****; if feedback on behaviour is evaluative e.g. praise, also code* ***10.4, Social reward*** |  |  |  |  |  |  |  |  |
| ***Self-monitoring of behavior*** | Establish a method for the person to monitor and record their behavior(s) as part of a behavior change strategy *Note: if monitoring is part of a data collection procedure rather than a strategy aimed at changing behavior, do not code; if monitoring of outcome of behavior, code* ***2.4, Self-monitoring of outcome(s) of behavior****;**if monitoring is by someone else (without feedback), code* ***2.1, Monitoring of behavior by others without feedback*** |  |  |  |  |  |  |  |  |
| ***Self-monitoring of outcome(s) of behavior*** | Establish a method for the person to monitor and record the **outcome(s)** of their behavioras part of a behavior change strategy  *Note: if monitoring is part of a data collection procedure rather than a strategy aimed at changing behavior, do not code ; if monitoring behavior, code* ***2.3, Self-monitoring of behavior****; if monitoring is by someone else (without feedback), code* ***2.5, Monitoring outcome(s) of behavior by others without feedback*** |  |  |  |  |  |  |  |  |
| ***Monitoring outcome(s) of behavior by others without feedback*** | Observe or record outcomes of behavior with the person’s knowledge as part of a behavior change strategy  *Note: if monitoring is part of a data collection procedure rather than a strategy aimed at changing behavior, do not code; if feedback given, code only* ***2.7, Feedback on outcome(s) of behavior****; if monitoring behavior code* ***2.1, Monitoring of behavior by others without feedback****; if self-monitoring outcome(s), code* ***2.4, Self-monitoring of outcome(s) of behavior*** |  |  |  |  |  |  |  |  |
| ***Biofeedback*** | Provide feedback about the body *(e.g. physiological or biochemical state)* using an external monitoring device as part of a behavior change strategy  *Note: if Biofeedback, code only* ***2.6, Biofeedback*** *and not* ***2.2, Feedback on behavior*** *or* ***2.7, Feedback on outcome(s) of behaviour*** |  |  |  |  |  |  |  |  |
| ***Feedback on outcome(s) of behavior*** | Monitor and provide feedback on the outcome of performance of the behavior  *Note: if Biofeedback, code only* ***2.6, Biofeedback*** *and not* ***2.7, Feedback on outcome(s) of behavior****; if feedback is on* ***behavior*** *code* ***2.2, Feedback on behavior****; if there is no clear evidence that feedback was given code* ***2.5, Monitoring outcome(s) of behavior by others without feedback;***  *if feedback on behaviour is evaluative e.g. praise, also code* ***10.4, Social reward*** |  |  |  |  |  |  |  |  |
| ***Feedback on clinical context*** | Provision of clinical information not explicitly related to the audit standards (i.e. behaviours or outcomes). Can include information on patient clinical profiles, clinical context, etc. |  |  |  |  |  |  |  |  |
| 1. **Social Support** | | | | | | | | | |
| ***Social support (unspecified)*** | Advise on, arrange or provide social support *(e.g. from friends, relatives, colleagues,’ buddies’ or staff)* or non-contingent praise or reward for performance of the behavior*.* It includes encouragement and counselling, but only when it is directed at the **behavior**  *Note: attending a group class and/or mention of ‘follow-up’ does not necessarily apply this BCT, support must be explicitly mentioned; if practical, code* ***3.2, Social support (practical)****; if emotional, code* ***3.3, Social support (emotional)*** (includes ‘**Motivational interviewing**’ and **‘Cognitive Behavioral Therapy’**) |  |  |  |  |  |  |  |  |
| ***Social support (practical)*** | Advise on, arrange, or provide **practical** help *(e.g. from friends, relatives, colleagues, ‘buddies’ or staff)* for performance of the behavior  *Note: if emotional, code* ***3.3, Social support (emotional)****; if general or unspecified, code* ***3.1, Social support (unspecified)*** *If only restructuring the physical environment or adding objects to the environment, code* ***12.1, Restructuring the physical environment*** *or* ***12.5, Adding objects to the environment;*** *attending a group or class and/or mention of ‘follow-up’ does not necessarily apply this BCT, support must be explicitly mentioned.* |  |  |  |  |  |  |  |  |
| ***Social support (emotional)*** | Advise on, arrange, or provide **emotional** social support *(e.g. from friends, relatives, colleagues, ‘buddies’ or staff)* for performance of the behavior  *Note: if practical, code* ***3.2, Social support (practical)****; if unspecified, code* ***3.1, Social support (unspecified)*** |  |  |  |  |  |  |  |  |
| 1. **Shaping Knowledge** | | | | | | | | | |
| ***Instruction on how to perform a behavior*** | Advise or agree on howto perform the behavior (includes ‘**Skills training**’)  *Note: when the person attends classes such as exercise or cookery, code* ***4.1, Instruction on how to perform the behavior, 8.1, Behavioral practice/rehearsal*** *and* ***6.1, Demonstration of the behavior*** |  |  |  |  |  |  |  |  |
| ***Information about antecedents*** | Provide information about antecedents  (*e.g. social and environmental situations and events, emotions, cognitions)* that reliably predict performance of the behaviour |  |  |  |  |  |  |  |  |
| ***Re-attribution*** | Elicit perceived causes of behavior and suggest alternative explanations *(e.g. external or internal and stable or unstable)* |  |  |  |  |  |  |  |  |
| ***Behavioral experiments*** | Advise on how to identify and test hypotheses about the behavior, its causes and consequences, by collecting and interpreting data |  |  |  |  |  |  |  |  |
| 1. **Natural Consequences** | | | | | | | | | |
| ***Information about health consequences*** | Provide information (e.g. written, verbal, visual) about health consequences of performing the behavior  *Note: consequences can be for any target, not just the recipient(s) of the intervention; emphasising importance of consequences is not sufficient; if information about emotional consequences, code* ***5.6, Information about emotional consequences****; if about social, environmental or unspecified consequences code* ***5.3,******Information about social and environmental consequences*** |  |  |  |  |  |  |  |  |
| ***Salience of consequences*** | Use methods specifically designed to **emphasise** the consequences of performing the behaviour with the aim of making them more memorable (goes beyond informing about consequences)  *Note: if information about consequences, also code* ***5.1, Information about health consequences****,* ***5.6, Information about emotional consequences*** *or* ***5.3, Information about social and environmental consequences*** |  |  |  |  |  |  |  |  |
| ***Information about social and environmental consequences*** | Provide information (e.g. written, verbal, visual) about social and environmental consequences of performing the behavior  *Note: consequences can be for any target, not just the recipient(s) of the intervention; if information about health or consequences, code* ***5.1, Information about health consequences****; if about emotional consequences, code* ***5.6, Information about emotional consequences****; if unspecified, code* ***5.3, Information about social and environmental consequences*** |  |  |  |  |  |  |  |  |
| ***Monitoring of emotional consequences*** | Prompt assessment of **feelings** after attempts at performing the behavior |  |  |  |  |  |  |  |  |
| ***Anticipated regret*** | Induce or raise awareness of expectations of future regret about performance of the unwanted behavior  *Note: not including* ***5.6, Information about emotional consequences***;  *if suggests adoption of a perspective or new perspective in order to change cognitions also code* ***13.2, Framing/reframing*** |  |  |  |  |  |  |  |  |
| ***Information about emotional consequences*** | Provide information (e.g. written, verbal, visual) about emotional consequences of performing the behavior  *Note: consequences can be related to emotional health disorders (e.g. depression, anxiety) and/or states of mind (e.g. low mood, stress); not including* ***5.5, Anticipated regret****; consequences can be for any target, not just the recipient(s) of the intervention; if information about health consequences code* ***5.1, Information about health consequences****; if about social, environmental or unspecified code* ***5.3, Information about social and environmental consequences*** |  |  |  |  |  |  |  |  |
| 1. ***Comparison of Behaviour*** | | | | | | | | | |
| ***Demonstration of the behavior*** | Provide an observable sample of the performance of the behaviour, directly in person or indirectly e.g. via film, pictures, for the person to aspire to or imitate (includes‘**Modelling**’). *Note:* if advised to practice, also code, ***8.1, Behavioural practice and rehearsal;*** *If provided with instructions on how to perform, also code* ***4.1, Instruction on how to perform the behaviour*** |  |  |  |  |  |  |  |  |
| ***Social comparison*** | Draw attention to others’ performance to allow comparison with the person’s own performance *Note:* *being in a group setting does not necessarily mean that social comparison is actually taking place* |  |  |  |  |  |  |  |  |
| ***Information about others’ approval*** | Provide information about what other people think about the behavior. The information clarifies whether others will like, approve or disapprove of what the person is doing or will do |  |  |  |  |  |  |  |  |
| 1. **Associations** | | | | | | | | | |
| ***Prompts/cues*** | Introduce or define environmental or social stimulus with the purpose of prompting or cueing the behavior. The prompt or cue would normally occur at the time or place of performance  *Note: when a stimulus is linked to a specific action in an if-then plan including one or more of frequency, duration or intensity* *also code* ***1.4, Action planning****.* |  |  |  |  |  |  |  |  |
| ***Cue signalling reward*** | Identify an environmental stimulus that reliably predicts that reward will follow the behavior (includes ***‘*Discriminative cue’**) |  |  |  |  |  |  |  |  |
| ***Reduce prompts/cues*** | Withdraw gradually prompts to perform the behavior (includes ***‘*Fading*’***) |  |  |  |  |  |  |  |  |
| ***Remove access to the reward*** | Advise or arrange for the person to be separated from situations in which unwanted behavior can be rewarded in order to reduce the behavior (includes ***‘*Time out’**) |  |  |  |  |  |  |  |  |
| ***Remove aversive stimulus*** | Advise or arrange for the removal of an aversive stimulus to facilitate behavior change (includes ***‘*Escape learning*’***) |  |  |  |  |  |  |  |  |
| ***Satiation*** | Advise or arrange repeated exposure to a stimulus that reduces or extinguishes a drive for the unwanted behavior |  |  |  |  |  |  |  |  |
| ***Exposure*** | Provide systematic confrontation with a feared stimulus to reduce the response to a later encounter |  |  |  |  |  |  |  |  |
| ***Associative learning*** | Present a neutral stimulus jointly with a stimulus that already elicits the behavior repeatedly until the neutral stimulus elicits that behavior (includes ***‘*Classical/Pavlovian Conditioning’**)  *Note: when a BCT involves reward or punishment, code one or more of:* ***10.2, Material reward (behavior); 10.3, Non-specific reward; 10.4, Social reward, 10.9, Self-reward; 10.10, Reward (outcome)*** |  |  |  |  |  |  |  |  |
| 1. **Repetition and Substitution** | | | | | | | | | |
| ***Behavioral practice/ rehearsal*** | Prompt practice or rehearsal of the performance of the behavior one or more times in a context or at a time when the performance may not be necessary, in order to increase habit and skill  *Note: if aiming to associate performance with the context, also code* ***8.3, Habit formation*** |  |  |  |  |  |  |  |  |
| ***Behavior substitution*** | Prompt substitution of the unwanted behavior with a wanted or neutral behavior  *Note: if this occurs regularly, also code* ***8.4, Habit reversal*** |  |  |  |  |  |  |  |  |
| ***Habit formation*** | Prompt rehearsal and repetition of the behavior in the same context repeatedly so that the context elicits the behavior  *Note: also code* ***8.1, Behavioral practice/rehearsal*** |  |  |  |  |  |  |  |  |
| ***Habit reversal*** | Prompt rehearsal and repetition of an alternative behavior to **replace** an unwanted habitual behavior  *Note: also code* ***8.2, Behavior substitution*** |  |  |  |  |  |  |  |  |
| ***Overcorrection*** | Ask to repeat the wanted behavior in an exaggerated way following an unwanted behaviour |  |  |  |  |  |  |  |  |
| ***Generalisation of a target behavior*** | Advise to perform the wanted behaviour, which is already performed in a particular situation, in another situation |  |  |  |  |  |  |  |  |
| ***Graded tasks*** | Set easy-to-perform tasks, making them increasingly difficult, but achievable, until behavior is performed |  |  |  |  |  |  |  |  |
| 1. **Comparison of outcomes** | | | | | | | | | |
| ***Credible source*** | Present verbal or visual communication from a credible source **in favour of or against the behavior**  *Note:* *code this BCT if source generally agreed on as credible e.g., health professionals, celebrities or words used to indicate expertise or leader in field and if the communication has the aim of persuading;*  *if information about health consequences, also code* ***5.1, Information about health consequences****, if about emotional consequences, also code* ***5.6, Information about emotional consequences****; if about social, environmental or unspecified consequences also code* ***5.3, Information about social and environmental consequences*** |  |  |  |  |  |  |  |  |
| ***Pros and cons*** | Advise the person to identify and compare reasons for wanting (pros) and not wanting to (cons) change the behavior (includes ‘**Decisional balance’***)*  *Note:* *if providing information about health consequences, also code* ***5.1, Information about health consequences****; if providing information about emotional consequences, also code* ***5.6, Information about emotional consequences****; if providing information about social, environmental or unspecified consequences also code* ***5.3, Information about social and environmental consequences*** |  |  |  |  |  |  |  |  |
| ***Comparative imagining of future outcomes*** | Prompt or advise the imagining and comparing of future outcomes of changed versus unchanged behaviour |  |  |  |  |  |  |  |  |
| 1. **Reward and Threat** | | | | | | | | | |
| ***Material incentive (behavior)*** | Inform that money, vouchers or other valued objects ***will be*** delivered if and only if there has been effort and/or progress in performing the behavior (includes ***‘*Positive reinforcement’**)  *Note: if incentive is social, code* ***10.5, Social incentive*** *if unspecified code* ***10.6,******Non-specific incentive,*** *and not* ***10.1, Material incentive (behavior)****; if incentive is for* ***outcome,*** *code* ***10.8, Incentive (outcome).*** *If reward is delivered also code one of:* ***10.2, Material reward (behavior); 10.3, Non-specific reward; 10.4, Social reward, 10.9, Self-reward; 10.10, Reward (outcome)*** |  |  |  |  |  |  |  |  |
| ***Material reward (behavior)*** | Arrange for the delivery of money, vouchers or other valued objects if and only if there ***has been*** effort and/or progress in performing the behavior (includes ‘**Positive reinforcement’**)  *Note: If reward is social, code* ***10.4, Social reward****, if unspecified code* ***10.3, Non-specific reward****, and not* ***10.1, Material reward (behavior)****; if reward is for* ***outcome****, code* ***10.10, Reward (outcome).*** *If informed of reward in advance of rewarded behaviour, also code one of:* ***10.1, Material incentive (behaviour); 10.5, Social incentive; 10.6, Non-specific incentive; 10.7, Self-incentive; 10.8, Incentive (outcome)*** |  |  |  |  |  |  |  |  |
| ***Non-specific reward*** | Arrange delivery of a reward if and only if there ***has been*** effort and/or progress in performing the behavior (includes ‘**Positive reinforcement’**)  *Note: if reward is material, code* ***10.2, Material reward (behavior)****, if social, code* ***10.4, Social reward****, and not* ***10.3, Non-specific reward****; if reward is for* ***outcome*** *code* ***10.10, Reward (outcome).*** *If informed of reward in advance of rewarded behaviour, also code one of****: 10.1, Material incentive (behaviour); 10.5, Social incentive; 10.6, Non-specific incentive; 10.7, Self-incentive; 10.8, Incentive (outcome)*** |  |  |  |  |  |  |  |  |
| ***Social reward*** | Arrange verbal or non-verbal reward if and only if there ***has been*** effort and/or progress in performing the behavior (includes ‘**Positive reinforcement**’)  *Note: if reward is material, code* ***10.2, Material reward (behavior)****, if unspecified code* ***10.3, Non-specific reward****, and not* ***10.4, Social reward****; if reward is for* ***outcome*** *code* ***10.10, Reward (outcome).*** *If informed of reward in advance of rewarded behaviour, also code one of****: 10.1, Material incentive (behaviour); 10.5, Social incentive; 10.6, Non-specific incentive; 10.7, Self-incentive; 10.8, Incentive (outcome)*** |  |  |  |  |  |  |  |  |
| ***Social incentive*** | Inform that a verbal or non-verbal reward ***will be*** delivered if and only if there has been effort and/or progress in performing the behavior (includes ‘**Positive reinforcement’**)  *Note: if incentive is material, code* ***10.1, Material incentive (behavior)****, if unspecified code* ***10.6, Non-specific incentive****, and not* ***10.5, Social incentive****; if incentive is for* ***outcome*** *code* ***10.8, Incentive (outcome).*** *If reward is delivered also code one of****: 10.2, Material reward (behavior); 10.3, Non-specific reward; 10.4, Social reward, 10.9, Self-reward; 10.10, Reward (outcome)*** |  |  |  |  |  |  |  |  |
| ***Non-specific incentive*** | Inform that a reward ***will be*** delivered if and only if there has been effort and/or progress in performing the behavior (includes ‘**Positive reinforcement’**)  *Note: if incentive is material, code* ***10.1, Material incentive (behavior)****, if social, code* ***10.5, Social incentive*** *and not* ***10.6, Non-specific incentive****; if incentive is for* ***outcome*** *code* ***10.8, Incentive (outcome).*** *If reward is delivered also code one of****: 10.2, Material reward (behavior); 10.3, Non-specific reward; 10.4, Social reward, 10.9, Self-reward; 10.10, Reward (outcome)*** |  |  |  |  |  |  |  |  |
| ***Self-incentive*** | Plan to reward self in future if and only if there has been effort and/or progress in performing the behavior  *Note: if self-reward is material, also code* ***10.1, Material incentive (behavior)****, if social, also code* ***10.5, Social incentive****, if unspecified, also code* ***10.6, Non-specific incentive****; if incentive is for* ***outcome*** *code* ***10.8, Incentive (outcome).*** *If reward is delivered also code one of:* ***10.2, Material reward (behavior); 10.3, Non-specific reward; 10.4, Social reward, 10.9, Self-reward; 10.10, Reward (outcome)*** |  |  |  |  |  |  |  |  |
| ***Incentive (outcome)*** | Inform that a reward ***will be*** delivered if and only if there has been effort and/or progress in achieving the behavioural **outcome** (*includes* ***‘*Positive reinforcement*’***)  *Note: this includes social, material, self- and non-specific incentives for outcome; if incentive is for the* ***behavior*** *code* ***10.5****,* ***Social******incentive****,* ***10.1, Material******incentive (behavior)****,* ***10.6, Non****-****specific incentive*** *or* ***10.7****,* ***Self****-****incentive*** *and not* ***10.8, Incentive (outcome).*** *If reward is delivered also code one of:* ***10.2, Material reward (behavior); 10.3, Non-specific reward; 10.4, Social reward, 10.9, Self-reward; 10.10, Reward (outcome)*** |  |  |  |  |  |  |  |  |
| ***Self-reward*** | Prompt self-praise or self-reward if and only if there ***has been*** effort and/or progress in performing the behavior  *Note: if self-reward is material, also code* ***10.2, Material reward (behavior)****, if social, also code* ***10.4, Social reward****, if unspecified, also code* ***10.3, Non-specific reward****; if reward is for* ***outcome*** *code* ***10.10, Reward (outcome).*** *If informed of reward in advance of rewarded behaviour, also code one of:* ***10.1, Material incentive (behaviour); 10.5, Social incentive; 10.6, Non-specific incentive; 10.7, Self-incentive; 10.8, Incentive (outcome)*** |  |  |  |  |  |  |  |  |
| ***Reward (outcome)*** | Arrange for the delivery of a reward if and only if there ***has been*** effort and/or progress in achieving the behavioral **outcome** (includes ‘**Positive reinforcement**’)  *Note: this includes social, material, self- and non-specific rewards for outcome; if reward is for the* ***behavior*** *code* ***10.4****,* ***Social******reward****,* ***10.2, Material******reward (behavior)****,* ***10.3,******Non****-****specific******reward*** *or* ***10.9****,* ***Self****-****reward*** *and not* ***10.10, Reward (outcome).*** *If informed of reward in advance of rewarded behaviour, also code one of****: 10.1, Material incentive (behaviour); 10.5, Social incentive; 10.6, Non-specific incentive; 10.7, Self-incentive; 10.8, Incentive (outcome)*** |  |  |  |  |  |  |  |  |
| ***Future punishment*** | Inform that future punishment or removal of reward will be a consequence of performance of an unwanted behavior (may include fear arousal) (includes ***‘*Threat*’***) |  |  |  |  |  |  |  |  |
| 1. **Regulation** | | | | | | | | | |
| ***Pharmacological support*** | Provide, or encourage the use of or adherence to, drugs to facilitate behavior change  *Note: if pharmacological support to reduce negative emotions (i.e. anxiety) then also code* ***11.2, Reduce negative emotions*** |  |  |  |  |  |  |  |  |
| ***Reduce negative emotions b*** | Advise on ways of reducing negative emotions to facilitate performance of the behavior (includes ‘**Stress Management**’)  *Note: if includes analysing the behavioural problem, also code* ***1.2****,* ***Problem solving*** |  |  |  |  |  |  |  |  |
| ***Conserving mental resources*** | Advise on ways of minimising demands on mental resources to facilitate behavior change |  |  |  |  |  |  |  |  |
| ***Paradoxical instructions*** | Advise to engage in some form of the unwanted behavior with the aim of reducing motivation to engage in that behaviour |  |  |  |  |  |  |  |  |
| 1. **Antecedents** | | | | | | | | | |
| ***Restructuring the physical environment*** | Change, or advise to change the **physical** environment in order to facilitate performance of the wanted behavior or create barriers to the unwanted behavior (other than prompts/cues, rewards and punishments)  *Note: this may also involve* ***12.3, Avoidance/reducing exposure to cues for the behavior****;**if restructuring of the social environment code* ***12.2, Restructuring the social environment;***  *if only adding objects to the environment, code* ***12.5, Adding objects to the environment*** |  |  |  |  |  |  |  |  |
| ***Restructuring the social environment*** | Change, or advise to change the **social** environment in order to facilitate performance of the wanted behavior or create barriers to the unwanted behavior (other than prompts/cues, rewards and punishments)  *Note: this may also involve* ***12.3, Avoidance/reducing exposure to cues for the behavior****; if also restructuring of the physical environment also code* ***12.1, Restructuring the physical environment*** |  |  |  |  |  |  |  |  |
| ***Avoidance/reducing exposure to cues for the behavior*** | Advise on how to avoid exposure to specific social and contextual/physical cues for the behavior, including changing daily or weekly routines  *Note:* *this may also involve* ***12.1, Restructuring the physical environment*** and/or ***12.2, Restructuring the social environment***; if the BCT includes analysing the behavioral problem, only code ***1.2*,** ***Problem solving*** |  |  |  |  |  |  |  |  |
| ***Distraction*** | Advise or arrange to use an alternative focus for attention to avoid triggers for unwanted behaviour |  |  |  |  |  |  |  |  |
| ***Adding objects to the environment*** | Add objects to the environment in order to facilitate performance of the behavior  *Note: Provision of information (e.g. written, verbal, visual) in a booklet or leaflet is insufficient. If this is accompanied by social support, also code* ***3.2, Social support (practical)****; if the environment is changed beyond the addition of objects, also code* ***12.1, Restructuring the physical environment*** |  |  |  |  |  |  |  |  |
| ***Body changes*** | Alter body structure, functioning or support **directly** to facilitate behavior change |  |  |  |  |  |  |  |  |
| 1. **Identity** | | | | | | | | | |
| ***Identification of self as role model*** | Inform that one's own behavior may be an example to others |  |  |  |  |  |  |  |  |
| ***Framing/reframing*** | Suggest the deliberate adoption of a perspective or new perspective on behavior (e.g. its purpose) in order to change cognitions or emotions about performing the behavior (includes ‘**Cognitive structuring**’); *If information about consequences then code* ***5.1, Information about health consequences, 5.6, Information about emotional consequences*** *or* ***5.3, Information about social and environmental consequences*** *instead of* ***13.2, Framing/reframing*** |  |  |  |  |  |  |  |  |
| ***Incompatible beliefs*** | Draw attention to discrepancies between current or past behavior and self-image, in order to create discomfort (includes ***‘*Cognitive dissonance’**) |  |  |  |  |  |  |  |  |
| ***Valued self-identity*** | Advise the person to write or complete rating scales about a cherished value or personal strength as a means of affirming the person’s identity as part of a behavior change strategy (includes ***‘*Self-affirmation’**) |  |  |  |  |  |  |  |  |
| ***Identity associated with changed behavior*** | Advise the person to construct a new self-identity as someone who ‘used to engage with the unwanted behavior’ |  |  |  |  |  |  |  |  |
| 1. **Scheduled consequences** | | | | | | | | | |
| ***Behavior cost*** | Arrange for withdrawal of something valued if and only if an unwanted behavior is performed (includes ‘**Response cost’**). Note if withdrawal of contingent reward code*,* ***14.3, Remove reward*** |  |  |  |  |  |  |  |  |
| ***Punishment*** | Arrange for aversive consequence contingent on the performance of the unwanted behavior |  |  |  |  |  |  |  |  |
| ***Remove reward*** | Arrange for discontinuation of contingent reward following performance of the unwantedbehavior (includes **‘Extinction’**) |  |  |  |  |  |  |  |  |
| ***Reward approximation*** | Arrange for reward following any approximation to the target behavior, gradually rewarding only performance closer to the wanted behavior (includes***‘*Shaping*’***)  *Note: also code one of* ***59-63*** |  |  |  |  |  |  |  |  |
| ***Rewarding completion*** | Build up behavior by arranging reward following final component of the behavior; gradually add the components of the behavior that occur earlier in the behavioral sequence (includes***‘*Backward chaining’**)  *Note: also code one of* ***10.2, Material reward (behavior); 10.3, Non-specific reward; 10.4, Social reward, 10.9, Self-reward; 10.10, Reward (outcome)*** |  |  |  |  |  |  |  |  |
| ***Situation-specific reward*** | Arrange for reward following the behavior in one situation but not in another (includes ***‘*Discrimination training’**)  *Note:* *also code one of* ***10.2, Material reward (behavior); 10.3, Non-specific reward; 10.4, Social reward, 10.9, Self-reward; 10.10, Reward (outcome)*** |  |  |  |  |  |  |  |  |
| ***Reward incompatible behavior*** | Arrange reward for responding in a manner that is incompatible with a previous response to that situation (includes ***‘*Counter-conditioning’**)  *Note: also code one of* ***10.2, Material reward (behavior); 10.3, Non-specific reward; 10.4, Social reward, 10.9, Self-reward; 10.10, Reward (outcome)*** |  |  |  |  |  |  |  |  |
| ***Reward alternative behavior*** | Arrange reward for performance of an alternative to the unwanted behavior (includes ***‘*Differential reinforcement*’***)  *Note: also code one of* ***10.2, Material reward (behavior); 10.3, Non-specific reward; 10.4, Social reward, 10.9, Self-reward; 10.10, Reward (outcome);*** *consider also coding* ***1.2, Problem solving*** |  |  |  |  |  |  |  |  |
| ***Reduce reward frequency*** | Arrange for rewards to be made contingent on increasing duration or frequency of the behavior (includes ***‘*Thinning*’***)  *Note: also code one of* ***10.2, Material reward (behavior); 10.3, Non-specific reward; 10.4, Social reward, 10.9, Self-reward; 10.10, Reward (outcome)*** |  |  |  |  |  |  |  |  |
| ***Remove punishment*** | Arrange for removal of an unpleasant consequence contingent on performance of the wanted behavior (includes ***‘*Negative reinforcement’**) |  |  |  |  |  |  |  |  |
| 1. **Self-belief** | | | | | | | | | |
| ***Verbal persuasion about capability*** | Tell the person that they can successfully perform the wanted behavior, arguing against self-doubts and asserting that they can and will succeed |  |  |  |  |  |  |  |  |
| ***Mental rehearsal of successful performance*** | Advise to practise imagining performing the behavior successfully in relevant contexts |  |  |  |  |  |  |  |  |
| ***Focus on past success*** | Advise to think about or list previous successes in performing the behavior (or parts of it) |  |  |  |  |  |  |  |  |
| ***Self-talk*** | Prompt positive self-talk (aloud or silently) before and during the behavior |  |  |  |  |  |  |  |  |
| 1. **Covert learning** | | | | | | | | | |
| ***Imaginary punishment*** | Advise to imagine performing the **unwanted** behavior in a real-life situation followed by imagining an unpleasant consequence (includes ***‘*Covert sensitisation’**) |  |  |  |  |  |  |  |  |
| ***Imaginary reward*** | Advise to imagine performing the **wanted** behavior in a real-life situation followed by imagining a pleasant consequence (includes ***‘*Covert conditioning’**) |  |  |  |  |  |  |  |  |
| ***Vicarious consequences*** | Prompt observation of the consequences (including rewards and punishments) for others when they perform the behavior  *Note:* *if observation of health consequences, also code* ***5.1, Information about health consequences****; if of emotional consequences, also code* ***5.6, Information about emotional consequences****, if of* *social, environmental or unspecified consequences, also code* ***5.3,******Information about social and environmental consequences*** |  |  |  |  |  |  |  |  |

1. **Additional BCTs identified not in V1:** (*If a BCT is identified that is not already covered by one of the labels in the taxonomy, please provide a summary label for the new BCT, a brief description, and the line/page number in the document where this BCT was identified).*

|  |  |  |
| --- | --- | --- |
| **Summary label** | **Brief description** | **Location in document (line/ page number)** |
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| *Add rows as needed* |  |  |

**RECOMMENDATIONS**:

a. Are suggestions or advice (e.g. action plan, goals) given to recipients to help them reach their targets/goals relative to feedback provided*?* Yes/No/Unclear

|  |  |  |  |  |  |  |  |  |  |  |  |
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| **Recommendation (paste)** | **Related to an audit standard?**  **1= yes**  **2= no**  **3= unclear** | **If yes, which standard?** | **Presentation**  **1=alone**  **2= w/ goal-setting**  **3= w/ feedback**  **4= w/ feedback+ goal- setting**  **5= N/A** | **Provides clear, and explicit instructions or recommendations for changing behaviour in relation to feedback?**  **1=yes**  **2= no**  **3= unclear** | **Level**  **1= general (non-tailored)**  **2= individual**  **3= group**  **4= both**  **5= unclear**  **6= N/A** | **Presented as an IF/THEN statement?**  **1=yes**  **2= no**  **3= unclear** | **Actor** | **Action** | **Context** | **Timeframe** | **Target** |
|  |  |  |  |  |  |  |  |  |  |  |  |
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**COMMENTS**