

Developing a taxonomy of behaviour change techniques: labels and definitions

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BACKGROUND

We lack a **shared language** for describing the content, especially the 'active ingredients' of behaviour change interventions. **Resulting problems** for replicating effective interventions; synthesising evidence; understanding causal mechanisms; & cumulative science of behaviour change. **Specifying an intervention** requires clear descriptions of **Behaviour Change Techniques (BCTs)**

AIMS

To **develop** a reliable and generalisable taxonomy of BCTs & achieve its multidisciplinary and international acceptance.

3 YEAR RESEARCH PLAN (MRC funded)



- Phase 1:** develop a taxonomy of BCTs
- Phase 2:** evaluate the taxonomy
- Phase 3:** develop a web-based users' resource
- Cross phase:** dissemination

METHOD (PHASE 1)

Delphi Consensus Exercise (Round 1)

Stage 1: Materials. 6 published taxonomies (references available on request) were consulted & **126** distinct BCTs listed. For BCTs with two or more labels (n = 24) and/or definitions (n = 37), five team members rated their preferred labels and definitions.

Stage 2: Delphi Exercise (Round 1). A panel (n = 14) of behaviour change experts completed an **online survey**.

For each of the 94 BCTs, the following **questions** were asked:

- * does it contain the postulated active ingredients? (1, 'definitely yes' 5, 'definitely no')
- * is it conceptually unique /redundant/overlapping (forced choice)
- * details for reason above
- * does it contain unnecessary characteristics and/or omitted characteristics? (open response)
- * list any omitted BCTs (open response)

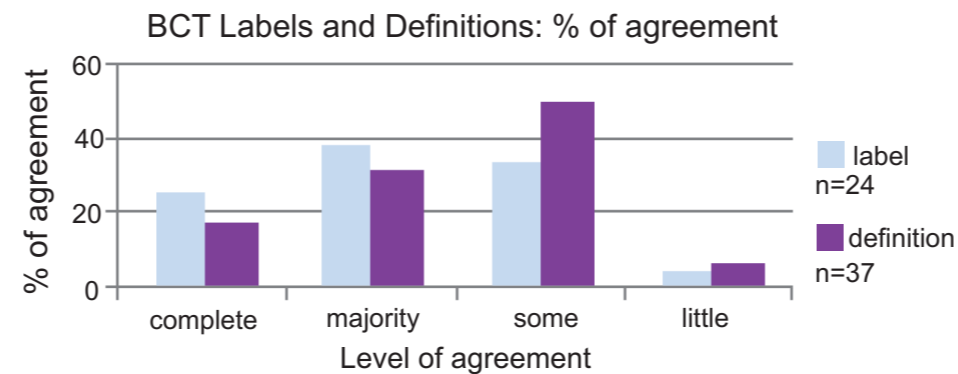
Analytic Strategy

Stage 1: % of agreement between raters, for each label and each definition was calculated. Where there was some, little or no agreement, BCTs were discussed by team members at a face to face meeting and developed or deleted on a case by case basis.

Stage 2: Decision rules were developed. Where there was concern about inclusion of active ingredients (> 1/4 rate 3, 4 or 5) and/or redundancy (> 1/3 rate as overlapping or redundant) BCTs were **'reconsidered'** and amended in light of the expert's comments.

RESULTS

Stage 1: Materials



Packages of BCTs (e.g., motivational interviewing) & competencies in delivering BCTs were deleted
An initial list of **94 BCTs** was developed

Stage 2: Delphi Exercise (Round 1)



Of the **73** reconsidered:

- 9 BCTs were omitted
- 4 split in two
- 2 added

A reason for overlap became evident: there was a hierarchical structure. The following groupings were inductively generated during the analysis process



Post Delphi, Round 1: 91 BCTs
Of these, **70** returned to expert panel for **Delphi (Round 2)**

CONCLUSIONS

- In light of the 91 BCTs identified, seems likely that existing taxonomies underestimate the number and range of BCTs
- BCTs can be grouped
- More work is needed to
 - refine labels and definitions in subsequent Delphi Rounds.
 - empirically validate BCT groupings
- These data are likely to provide a good basis for a taxonomy that can be continuously developed by the international research community

NEXT STEPS

Phase 1:

- Delphi Exercise (Round 2)**
- Liaise with our **International Advisory Board** to finalise taxonomy and discuss Phase 2.

Phase 2:

- Develop training for BCT coding
- Recruit Behaviour Change Experts** to take part in a coding exercise of BCT interventions using the post Delphi taxonomy



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|------------------------|-----------------|--------------------|
| Arja Aro | Paul Glasziou | Miquel Porta |
| David Barlow | Gaston Godin | Tony Roth |
| Christine Barrowclough | Jeremy Grimshaw | Rob Sanson-Fischer |
| Ron Borland | Nick Heather | Neil Schneiderman |
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