

Reviewer's report

Title: The role of theory in designing healthcare professional behaviour change interventions: the arguments for.

Version: 1 Date: 27 November 2005

Reviewer: Susan Michie

Reviewer's report:

General

This is a thoughtful, well-written paper putting the case for using theory in designing and evaluating interventions aimed at increasing the implementation of evidence based practice. The authors make the case that increasing implementation depends on changing health professional behaviour, and that advances in developing effective interventions to change such behaviour have been slow. They suggest that increasing the use of theory in implementation research may improve this situation by providing more efficient and effective strategies for choosing targets for intervention and measures of outcomes and mediators, and for conducting statistical analyses. The paper provides a good description of different levels and types of theories and how they could be used in research.

The authors argue that RCTs may be more effective if based on theory; this argument has been well developed previously in what is commonly referred to as the "MRC framework" for developing and evaluating complex interventions (Campbell et al, 2000). This work should be cited; the current paper builds on this by giving more detail about how theory should be incorporated.

The paper is written at quite an abstract level, although the boxes giving concrete examples are helpful. There is reference to theory from "other disciplines" without giving examples, and there are few examples of the kind of theories that would be useful. The paper would be greatly strengthened by citing publications detailing some of the relevant theories (e.g. Walker in Michie & Abraham, 2004; Robertson et al, 1996) and by the addition of a box giving examples of relevant theories e.g. at individual, interpersonal and organisational levels. At present, if the article succeeds in convincing readers of the importance of using theory, it gives no indication as to how readers should take this forward. The authors might consider citing other articles that outline a coherent approach to incorporating theory into health promotion interventions e.g. Kok et al, 2004; Hardeman et al, 2005.

The paper would be more widely accessible if some of its less familiar terms were defined e.g. "contextualisation" p.11, "normative beliefs" p.12, "subjective norms" p.13 (would be simpler to use just one of these preceding terms), "volitional" p.14, "operationalised" (in reference to theory) the "agency relationship" (p.18).

References

- Campbell M, Fitzpatrick R, Haines A, Kinmonth AL, et al. Framework for design and evaluation of complex interventions to improve health. *British Medical Journal* 321, 694-696. 2000. Hardeman et al (2005) A causal modelling approach to the development of theory-based behaviour change programmes for trial evaluation. *Health Education Research* 20 (6): 676-687,.
- Kok, G., Schaalma, H., Ruiter, R., Van Empelen, P. and Brug, J. Intervention Mapping: Protocol for Applying Health Psychology Theory to Prevention Programmes. *J Health Psychol*, Jan 2004; 9: 85 - 98.
- Robertson N, Baker R, Hearnshaw H, Changing the clinical behaviour of doctors: A psychological framework, *QUALITY IN HEALTH CARE* 5 (1): 51-54 MAR 1996 Walker, A. (2004) Changing

behaviour in health care. In Michie, S. and Abraham, C. (editors) Health Psychology in Practice. London. BPS Blackwells

Major Compulsory Revisions (that the author must respond to before a decision on publication can be reached)

Definitions of terms; examples of theories and disciplinary sources; indication as to how readers can take this approach forward (see comments above)

Within the abstract the two sentences that refer to a “number of advantages” and “number of reasons” should be re-written with more content – i.e. summarise or list the main advantages and reasons.

Two consecutive sentences on p.18 are difficult to understand and should either be rewritten with clearer content or omitted. The first includes a double negative. They start, “It is unlikely that theories”

Minor Essential Revisions (such as missing labels on figures, or the wrong use of a term, which the author can be trusted to correct)

rd line of p.3, insert “to” after “devoted”

Box 3, 5th bullet point, delete the redundant “can”.

p.16 “miss-specified” should be spelt, or better still, worded differently.

These two sentences have unclear meaning that need to be tidied:

p.9., beginning “What is as important ...”

p.12., 2nd line “Which could, for example, need to address ...”

Discretionary Revisions (which the author can choose to ignore)

Although the authors have followed the required structure for both abstract and article, I don't think the structure works well for this kind of paper and I would recommend an unstructured abstract and headings within the text that were more meaningful for the relevant sections.

What next?: Unable to decide on acceptance or rejection until the authors have responded to the major compulsory revisions

Level of interest: An article of importance in its field

Quality of written English: Acceptable

Statistical review: No, the manuscript does not need to be seen by a statistician.