



ORIGINAL ARTICLE

Current use was established and Cochrane guidance on selection of social theories for systematic reviews of complex interventions was developed

Jane Noyes^{a,*}, Maggie Hendry^b, Andrew Booth^c, Jackie Chandler^d, Simon Lewin^e,
Claire Glenton^e, Ruth Garside^f

^a*School of Social Sciences, Bangor University, Bangor LL57 2EF, UK*

^b*North Wales Centre for Primary Care Research, Bangor University, Bangor, UK*

^c*School of Health & Related Research (ScHARR), University of Sheffield, Regent Court, 30 Regent Street, Sheffield S1 4DA, UK*

^d*The Cochrane Editorial Unit, Cochrane Central Executive, St Albans House, 57-59 Haymarket, London SW1Y 4QX, UK*

^e*Global Health Unit, Norwegian Knowledge Centre, Norwegian Institute of Public Health, PO Box 4404, Nydalen, N-0403 Oslo, Norway*

^f*European Centre for Environment and Human Health, University of Exeter, Knowledge Spa, Royal Cornwall Hospital, Truro TR1 3HD, UK*

Accepted 18 December 2015; Published online xxxx

Abstract

Objective: To identify examples of how social theories are used in systematic reviews of complex interventions to inform production of Cochrane guidance.

Study Design and Setting: Secondary analysis of published/unpublished examples of theories of social phenomena for use in reviews of complex interventions identified through scoping searches, engagement with key authors and methodologists supplemented by snowballing and reference searching. Theories were classified (low-level, mid-range, grand).

Results: Over 100 theories were identified with evidence of proliferation over the last 5 years. New low-level theories (tools, taxonomies, etc) have been developed for classifying and reporting complex interventions. Numerous mid-range theories are used; one example demonstrated how control theory had changed the review's findings. Review-specific logic models are increasingly used, but these can be challenging to develop. New low-level and mid-range psychological theories of behavior change are evolving. No reviews using grand theory (e.g., feminist theory) were identified. We produced a searchable Wiki, Mendeley Inventory, and Cochrane guidance.

Conclusions: Use of low-level theory is common and evolving; incorporation of mid-range theory is still the exception rather than the norm. Methodological work is needed to evaluate the contribution of theory. Choice of theory reflects personal preference; application of theory is a skilled endeavor. © 2016 Elsevier Inc. This is an open access article under the CC BY-NC-ND license (<http://creativecommons.org/licenses/by-nc-nd/4.0/>).

Keywords: Theory; Systematic review; Complex intervention; Methodology; Cochrane; Guidance

1. Introduction

The importance and use of social theories in health and social care research has become increasingly evident over the last couple of decades. Alderson, in a seminal article published in the *British Medical Journal* in 1998, stated that “theories range from explicit hypotheses to working models and frameworks of thinking about reality” and that “the choice of theory, although often unacknowledged, shapes the way practitioners and researchers collect and interpret evidence” [1]. Reeves et al. expanded this idea by suggesting that “theories also provide complex and comprehensive conceptual understandings of things that cannot be pinned down: how societies work, how organizations operate, why people interact in certain ways” [2]. From a sociological perspective, Merton classified theories

Conflicts of interest: J.N., A.B., and R.G. are coconvenors of the Cochrane Qualitative and Implementation Methods Group. J.N. is a co-chair of the Cochrane Methods Executive and member of the Methods Application and Review Standards group. S.L. and C.G. are both editors for the Cochrane Effective Practice and Organisation of Care Group and the Cochrane Consumers and Communication Review Group. J.C. is Cochrane Methods co-ordinator.

Funding: The authors gratefully acknowledge Cochrane for funding the MICCI project from the Methods Innovation Fund. Bangor University contributed 40% of Noyes' time for 3 years. Cochrane funded Chandler's time. The University of Sheffield contributed 2% of Booth's time over the equivalent of a 1-year period for database development and for information management advice.

* Corresponding author. Tel.: +44 (0)1248 388519.

E-mail address: j.noyes@bangor.ac.uk (J. Noyes).

What is new?**Key findings**

- Over 100 social theories that had been used or were designed for use in systematic reviews were identified with evidence of proliferation over the last 5 years.
- New low-level theories (tools, taxonomies etc.) have been developed for classifying and reporting complex interventions.
- Numerous mid-range theories are used; one example demonstrated how control theory had changed the review's findings.
- Review-specific logic models are increasingly used, but these can be challenging to develop.
- New low-level and mid-range psychological theories of behaviour change are evolving.
- No reviews using grand theory (e.g. feminist theory) were identified.

What this adds to what was known?

- Current systematic review guidance and methods manuals say little about use of social theories in complex intervention reviews; this is a major gap.
- For the first time low-level, mid-range and grand theories are defined, classified and articulated in the context of systematic reviews of complex interventions.
- New Cochrane guidance is provided on the selection of social theories in complex intervention reviews.
- Two new searchable author resources (a 'Theory in Reviews' Wiki and Mendeley Theory in Reviews Inventory) are presented.

What is the implication and what should change now?

- Use of appropriate theory can enhance and strengthen systematic review methods and interpretation of complex evidence.
- Review authors are invited to use the Cochrane guidance and searchable resources when designing and conducting their reviews.
- Choice of social theory reflects personal preference and application of theory in a systematic review is a skilled endeavour.
- Review authors may benefit from additional professional development and training to make best use of social theories.

- Methodological work is needed to further evaluate the contribution of social theory to systematic reviews of complex interventions.

as low-level, mid-range, or grand theory lying on a spectrum "between the minor but necessary working hypotheses that evolve in abundance during day-to-day research and the all-inclusive systematic efforts to develop a unified theory that will explain all the observed uniformities of social behavior, social organization and social change" [3]. The boundaries between theory levels can however overlap and theories can transcend levels (or be refuted and discarded) as they are developed and tested over time. Merton's classification can be applied to theory used in systematic reviews as follows.

1.1. Low-level theory

Low-level theories (e.g., segregated hypotheses or isolated propositions, and typologies and taxonomies, etc) are used to predict, assume, describe, or organize aspects of the phenomena of interest but do not show the interrelationships between concepts. All reviews contain low-level theory in the form of segregated hypotheses or questions, but review designs and methods vary in the degree to which they incorporate recognized frameworks to systematize the review processes such as use of PICO [4] to develop and refine questions, quality appraisal or risk of bias tools, reporting frameworks (e.g., the PRISMA checklist and flowchart [5]), and so on.

1.2. Mid-range theory

Mid-range theories (e.g., conceptual frameworks and models, and theories such as the Theory of Planned Behaviour [6,7] or the Consolidated Framework for Implementation Research [8]) have interconnected relationships between concepts with limited scope to explain specific phenomena, are empirically testable, and can be used to describe and predict causal relationships among concepts, or used to define activities and processes and predict outcomes. The Theory of Planned Behaviour, for example, is used to predict a person's intention to engage in a particular behavior at a specific time in a specific context. Some more sophisticated hypotheses can also be defined as mid-range theories. Similarly, "Programme theories" that make explicit the causal assumptions as to how a complex intervention is intended to work may start off as low-level theories and be developed into mid-range theory [9].

1.3. Grand theory

Grand theories are highly abstracted theories in which organized and integrated concepts explain the social world (e.g., Feminist theory, Welfarism, or Marxism). Feminist

Download English Version:

<https://daneshyari.com/en/article/7519639>

Download Persian Version:

<https://daneshyari.com/article/7519639>

[Daneshyari.com](https://daneshyari.com)