



It's complicated: The relation between cognitive change procedures, cognitive change, and symptom change in cognitive therapy for depression



Lorenzo Lorenzo-Luaces, Ramaris E. German, Robert J. DeRubeis *

Department of Psychology, University of Pennsylvania, United States

HIGHLIGHTS

- Various therapeutic procedures produce both cognitive and symptom change.
- Cognitive change appears to be a general mechanism of change.
- Cognitive mediation studies often violate temporality assumptions.
- A framework for research on cognitive mediation is proposed.

ARTICLE INFO

Article history:

Received 18 June 2014

Received in revised form 29 November 2014

Accepted 10 December 2014

Available online 24 December 2014

Keywords:

Psychotherapy processes

Mechanisms of change

Cognitive change

Cognitive therapy

Mediation

ABSTRACT

Many attempts have been made to discover and characterize the mechanisms of change in psychotherapies for depression, yet no clear, evidence-based account of the relationship between therapeutic procedures, psychological mechanisms, and symptom improvement has emerged. Negatively-biased thinking plays an important role in the phenomenology of depression, and most theorists acknowledge that cognitive changes occur during successful treatments. However, the causal role of cognitive change procedures in promoting cognitive change and alleviating depressive symptoms has been questioned. We describe the methodological and inferential limitations of the relevant empirical investigations and provide recommendations for addressing them. We then develop a framework within which the possible links between cognitive procedures, cognitive change, and symptom change can be considered. We conclude that cognitive procedures are effective in alleviating symptoms of depression and that cognitive change, regardless of how it is achieved, contributes to symptom change, a pattern of findings that lends support to the cognitive theory of depression.

© 2014 Elsevier Ltd. All rights reserved.

Contents

1. Introduction	4
1.1. Cognition and depression	5
1.2. Distinguishing therapeutic modalities, change procedures, and mechanisms of change	5
2. Testing links between cognitive procedures, cognitive change and symptom change	6
2.1. Differential effects of procedures on symptoms ($X \rightarrow Y$)	6
2.1.1. Outcome research	6
2.1.2. Process research	6
2.2. Differential effects of procedures on cognitions ($X \rightarrow M$)	7
2.3. Effects of cognitive change on symptom change ($M \rightarrow Y$)	7
2.4. Statistical tests of the mediation of symptom change	7
2.5. Cognitive specificity	8
3. The ways in which cognitive change procedures, changes in cognitions and symptom change could relate to each other	9
3.1. Position 1: cognitive change is a mechanism of symptom change in psychotherapy ($X, X, +1, 0$)	9
3.1.1. 1A. Cognitive procedures produce superior cognitive change and symptom change ($+1, +1, +1, 0$)	9

* Corresponding author at: Department of Psychology, University of Pennsylvania, 3720 Walnut Street, Philadelphia, PA 19104, United States.

E-mail address: derubeis@psych.upenn.edu (R.J. DeRubeis).

3.1.2.	1B. Cognitive procedures and non-cognitive procedures produce indistinguishable effects on cognitive change and symptom change (0, 0, +1, 0)	9
3.1.3.	1C. Cognitive change procedures are inferior to non-cognitive change procedures (−1, −1, +1, 0)	9
3.2.	Position 2: cognitive change is not a mechanism of symptom change in psychotherapy (X, X, 0, 0)	10
3.3.	Position 3: the role of cognitive change as a mediator of symptom change is specific to cognitive procedures (X, X, 0, +1)	10
3.4.	State of the evidence regarding the five positions	10
4.	Research strategies that will further the understanding of mechanisms	11
4.1.	Attention to temporal features	11
4.2.	Long-term outcomes	11
4.3.	Focus on populations that can reveal true differences in procedures	11
4.4.	Distinguishing measures of symptoms from measures of potential mechanisms	12
4.5.	Expand the focus of the analysis of cognitive processes	12
4.6.	Exploration of patient-level moderators	12
5.	Summary and conclusions	12
Appendix A.	Supplementary data	13
References		13

1. Introduction

It is widely accepted that psychological interventions can be effective in the treatment of Major Depressive Disorder (MDD). Despite a long history of attempts to understand the processes and mechanisms by which psychotherapies achieve their effects, consensus has not emerged regarding the associations between therapeutic procedures, psychological mechanisms, and the symptom improvement they lead to. Although basic psychological research supports the notion that maladaptive cognitions play an important role in the etiology and maintenance of depression (Ingram, Atchley, & Segal, 2011), some have questioned the role of cognitive change procedures in psychotherapies, as well as the status of cognitive change as a mechanism of symptom reduction. Interpreting the literature regarding cognitive change as a mediator of symptom change in cognitive therapy (CT), Kazdin (2007) concluded: “[W]e can state more confidently now than before that whatever may be the basis of changes with CT, it does not seem to be the cognitions as originally proposed.” (p. 08; see also Longmore & Worrell, 2007).

Proponents of a common factor view of psychotherapy (see Messer & Wampold, 2002), as well as advocates of the “third-wave” cognitive-behavioral therapies (e.g., Hayes, 2004), have also questioned the basic premises that underlie the cognitive therapies. A common factor account of the effectiveness of CT places little if any weight on the importance of specific techniques, cognitive or otherwise, and third-wave therapies were developed in part as a reaction against a mechanistic understanding of the relation of cognitive change to symptom change. In the context of these critiques, a clarification of the propositions implied by a cognitive theory of change in CT, as well as a review of the relevant evidence, is warranted. As has been recognized in other areas of health, an understanding of the mechanisms of therapeutic change can lead to better treatments.

Consistent with Kazdin (2009), we distinguish two terms, mechanism and mediator, that are used in descriptions and tests of models of therapeutic change. A *mechanism* is a phenomenon that, when changed by a treatment, causes change in symptoms. Two treatments could mobilize different mechanisms and yet lead to similar effects on symptoms (DeRubeis, Brotman, & Gibbons, 2005). In such cases, each of the treatments would be expected to produce greater change in its theory-relevant mechanism, relative to the other. However, because mechanisms are causal agents, when changes in a mechanism occur, they are followed by changes in symptoms, irrespective of the treatment in which the change occurred.

Investigations that address mechanistic theories often include tests of mediation. In studies of psychotherapeutic change, a *mediator* is a variable that accounts, statistically, for a treatment effect, either partially or fully. A study in which the statistical criteria for mediation are met can provide some support for a causal theory. However, because

mediators are observed rather than manipulated, no test of mediation can rule out all competing causal accounts.

The theory behind CT can be stated thus: Engaging in procedures aimed at altering negatively biased beliefs and thinking styles leads to cognitive change, which is the mechanism by which depressive symptoms are reduced (Beck & Haigh, 2014; Beck, Rush, Shaw, & Emery, 1979). Evidence in support of cognitive change as a therapeutic mechanism would be that changes in cognitive processes or contents predict symptom change, irrespective of the cause of the cognitive change (Gelfand & DeRubeis, in press). However, it is possible that cognitive changes cause symptom change only, or especially, in the context of a treatment that focuses on changing cognitions. In this case, cognitive change would not be a general mechanism, but rather would act as a mediator that is specific to contexts in which cognitive procedures lead to the cognitive change.

Based on existing evidence (Barth et al., 2013; Cuijpers, van Straten, Andersson, & van Oppen, 2008), it is safe to assert that cognitive change procedures, the defining features of CT, produce more symptom change, on average, than would occur simply with the passage of time. As tempting as it may be to infer that this provides strong support for a cognitive model of therapeutic change, such findings do not address the following questions (see Fig. 1):

1. Do cognitive change procedures (X), which are the focus of CT, lead to greater reduction in depressive symptoms (Y) than do procedures that emphasize change in other domains, such as behaviors? (path c.)
2. Do cognitive change procedures (X) produce greater cognitive change

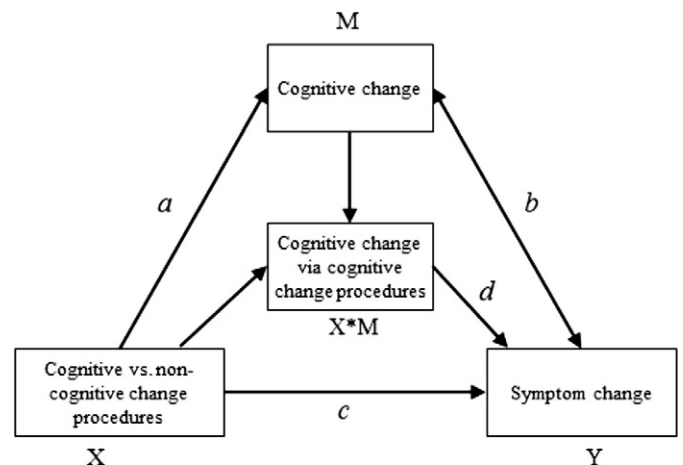


Fig. 1. Links between cognitive change procedures, cognitive change, and symptom change in depression.

Download English Version:

<https://daneshyari.com/en/article/903572>

Download Persian Version:

<https://daneshyari.com/article/903572>

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