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Psychotherapists Collect Data During Routine Clinical Work that can Contribute to
Knowledge About Mechanisms of Change in Psychotherapy

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Abstract

Therapists providing psychological treatments routinely pose and test hypotheses about mechanisms of change, including mechanisms of change in cognitive therapy for depression. When they use systematic, objective, and scientific methods to do these tasks, clinicians can simultaneously provide quality care and contribute to the field's understanding of the mechanisms of therapeutic action. This article presents evidence supporting these assertions and offers examples of data collected in routine clinical practice that answer important questions about the process of change in cognitive therapy for depression.

Psychotherapists Collect Data During Routine Clinical Work that can Contribute to
Knowledge About Mechanisms of Change in Psychotherapy

Researchers have been trying for many years to determine how cognitive therapy works—and, as Ingram, Rand, Garratt and Sawalani (2007) observed—they still do not have a definitive answer. Clinicians also want to understand the mechanism of change of cognitive therapy for depression—but we can't wait. The patient is sitting in the office asking for help, and we cannot ask him or her to return later, when our understanding is complete. The therapist seeks the answers to questions about the causes of a particular patient's depressive symptoms and the interventions that might help reduce them on a daily basis-- in fact many times during each therapy session: "Is the patient benefiting from the intervention I am doing right now? If I push harder on it, will he 'get it'? "Or should I abandon this line of intervention and try another?" The thesis of this Commentary is that when therapists use systematic, objective, and scientific methods to examine the process of change in therapy, they can contribute both to quality patient care and to an understanding of the mechanisms of action of psychological therapies in general and cognitive therapy for depression in particular.

A scientific approach to clinical work

In a scientific approach to clinical work, the therapist systematically collects objective assessment data, uses it to develop a hypothesis (formulation) about the mechanisms causing and maintaining the patient's problems and symptoms, uses the formulation as the basis for devising a treatment plan, and collects data to test the accuracy of the formulation and the outcome of treatment, revising the formulation and

treatment plan as needed based on those data (Barlow, Hayes, & Nelson, 1984; Persons, 2005). To strengthen the empirical foundation of this way of working, the clinician's first-line idiographic formulation and treatment plan are based on templates drawn from empirically-supported theories and therapies (ESTs), such as Beck's cognitive theory and therapy of depression (Haynes, Kaholokula, & Nelson, 1999).

For example, if Susan's depressive symptoms are conceptualized as resulting from distorted cognition (cf (Beck, Rush, Shaw, & Emery, 1979)), her therapist devises a treatment plan that will help Susan identify and reduce the distortions in her thinking in order to alleviate her depressive symptoms. As the therapy proceeds, Susan's therapist works with her to collect data to monitor her thinking and her symptoms to test the hypothesis that reductions in distorted thought will lead to reductions in depressive symptoms. Notice that in this approach to clinical work the therapist is collecting data to test the same hypotheses that psychotherapy researchers test, namely hypotheses about the psychological mechanisms underpinning psychopathology and the change process in therapy.

A scientific approach to clinical work produces good outcomes

Several types of data support the assertion that a scientific approach leads to quality patient care (see also (Persons, 2005)). One type of data is the efficacy and effectiveness data that are available for many of the ESTs (including Beck's cognitive therapy for depression) that serve as templates for the idiographic case formulation and treatment plan. Another type of data is the demonstration by Michael Lambert and his colleagues (Lambert et al., 2003) that when clinicians collect and review a measure of outcome at every therapy session, patients have better outcomes than when clinicians do

not monitor outcome at every session. Finally, two uncontrolled trials suggest that case formulation-driven cognitive-behavior therapy for depression (which includes the elements described in the scientific approach to clinical work above) produces outcomes similar to those obtained in cognitive therapy for depression in the randomized controlled trials (Persons, Bostrom, & Bertagnolli, 1999; Persons, Roberts, Zalecki, & Brechwald, 2006).

A scientific approach to clinical work can advance scientific understanding of the mechanisms of action of psychotherapy

Contributions from clinicians have a time-honored role in contributing to the development of new therapies (Hayes, Barlow, & Nelson-Gray, 1999; McCullough, 2000). Here I join others (Borkovec, Echemendia, Ragusea, & Ruiz, 2001) in proposing that data collected by clinicians in the course of routine clinical work can test hypotheses about mechanisms of change in therapy. I offer several examples of studies of cognitive therapy (CT) for depression that were collected in the course of routine clinical practice, beginning with two that were included in the (Ingram., Rand, Garratt, & Sawalani, 2007) review. (Persons & Burns, 1985) collected data from their private practice patients to test the hypothesis that changes in emotional distress during the session were a function of change in the patient's degree of belief in his automatic thoughts. Data were collected during a session of CT with 17 patients who spent the session working systematically through a Daily Record of Dysfunctional Thoughts (Beck et al., 1979) that was focused on an upsetting recent situation. Patients identified the situation, rated the intensity of their emotional distress from 0 to 100, identified (with the therapist's help) the automatic thoughts (ATs) that were tied to those emotions and rated their degree of belief in each

AT on a scale of 0 to 100, worked with the therapist to identify rational responses (RR) to the ATs, rated the degree of belief in those RRs on a 0 to 100 scale, and then re-rated the degree of belief in the ATs and the intensity of the emotional distress. At the end of the session patients also completed a brief inventory assessing the quality of the therapeutic relationship. As predicted by Beck's cognitive theory, reduction in emotional distress during the session was a function of the change in the patient's degree of belief in his or her ATs. Change in emotional distress was also a function of the quality of the therapeutic relationship, and these two independent variables accounted for 66% of the variance in emotion change during the session.

(Kuyken, 2004) collected data from depressed patients who received cognitive therapy and adjunctive therapies, including pharmacotherapy, based on clinical need, and who completed the Beck Depression Inventory (BDI) and the Beck Hopelessness Scale before every session as part of their treatment.. (Kuyken, 2004) tested and confirmed the hypothesis that hopelessness symptoms that did not respond early in treatment (within the first four sessions of therapy) predicted poor outcome as assessed by scores on the BDI.

Other studies based on data collected in clinical settings include the demonstration by (Burns & Nolen-Hoeksema, 1991) that patients' willingness to learn new strategies to cope with depression and their compliance with CT homework predicted outcome of CT for depression, and by (Burns & Nolen-Hoeksema, 1992) that patients' ratings of their therapist's empathy and homework compliance had separate and additive positive effects on outcome of CT for depression. Another study (Persons, Burns, & Perloff, 1988) showed that depressed patients who receive naturalistic cognitive therapy (that is, provided in a clinical setting and often including pharmacotherapy and

other adjunct therapies) have better outcomes when they do homework assignments outside the session.

All of these studies, which rely on data collected in the process of routine clinical work, address key questions about the process of change in cognitive therapy, including questions that are rarely studied. For example, despite its importance, only a handful of studies (reviewed in (Ingram. et al., 2007) in the section titled “Within Session Mediation”) have been conducted to test the hypothesis that cognitive interventions and change produce changes in emotional distress during sessions of cognitive therapy.

Questions about mechanisms of change in psychological therapies are of compelling interest to both researchers and clinicians. As a result, clinicians can collect data that address key scientific questions about the process of therapy in the course of their daily work. Of course, as they do so, clinicians must pay careful attention to ethical issues, including the potential for conflict of clinical and research goals. However, with safeguards in place, the value of conducting process research in clinical settings is supported by evidence that the systematic, thoughtful, and empirical approach to clinical work that supports the collection of research data also contributes to high quality patient care.

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