



Published in final edited form as:

Behav Ther. 2013 December ; 44(4): 603–608. doi:10.1016/j.beth.2013.04.006.

Bridging the Theory-Practice Gap by Getting Even Bolder with the Boulder Model

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Abstract

Cognitive behavioral therapy is an effective treatment for virtually all psychiatric disorders. However, very few patients have access to it and few therapists are trained in the theory and practice of cognitive behavioral therapy. Based on the existing evidence and the articles of this series, the following recommendations are made: (1) all mental health care providers (including PsyD and social workers) need to be trained in the practice and theories of empirically-supported treatments, specifically cognitive behavioral therapy; (2) clinical practice also needs to be based on theory, not just treatment manuals; and (3) psychological treatments have to move beyond the DSM boundaries.

Keywords

Psychotherapy; Scientist-Practitioner Model; Boulder Model; Cognitive Behavioral Therapy; Theory; Dissemination

Bridging the Theory- Practice Gap by Getting Even Bolder with the Boulder Model

I am delighted that I am given the opportunity to comment on this special issue, entitled *The Theory-Practice Gap in Cognitive Behavioral Therapy* organized by Pilecki, and McKay (in press). To start out, I would like to explain the reason for choosing the strange-sounding title of my article.

First formulated in 1949 at the Boulder Conference on Graduate Education in Clinical Psychology in Boulder, Colorado, the American Psychological Association set forth a number of specific training guidelines for clinical doctoral programs (Raimy, 1950). The recommendation of this Boulder model (i.e., the scientist practitioner model) was that clinical doctoral program should train psychological assessment and treatment procedures in accordance to scientifically-based protocols; to use scientific findings to inform health care

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decisions; to adopt a scientific approach to inform health care decisions; and to encourage cross-disciplinary collaborations with other health care practitioners to optimize health care decisions. In essence, the goal was to train students to become scientist-practitioners who make empirically-based and theory-driven health care decisions. In the same spirit were the efforts by the Division 12 Task Force on Promotion and Dissemination of Psychological Procedures (Chambless & Ollendick, 2001; Crits-Christoph, Frank, Chambless, Brody, Karp, 1995), which I will discuss further below.

The former ABCT president Jerry Davison wrote in 1998 an article in the *Journal of Consulting and Clinical Psychology*, entitled *Being Bolder with the Boulder Model: The challenge of education and training in empirically supported treatments* (Davison, 1998). In this article, Davison analyzed factors that interfere with the realization of the Boulder model. Two of these factors include personal and subjective preferences for treatments with little or no empirical support and the reliance on treatment protocols at the cost of conducting a careful case conceptualization. More than 20 years later, Shafran and colleagues wrote an article entitled, *Mind the gap: improving the dissemination of CBT* (Shafran, Clark, Fairburn, Arntz, Barlow, Ehlers, et al., 2009). In this article, Shafran and colleagues discussed barriers to dissemination of CBT and made a number of recommendations to overcome these barriers. Among other solutions, the authors suggested that it is necessary to identify the therapist's skill level sufficient to obtain good outcomes and to study the mechanism of action of efficacious treatments. Thus, both issues – training and dissemination of CBT- are closely connected, because good training is an essential first step for disseminating CBT.

Stimulated by these papers and the excellent articles of this series, I will propose a radical extension of the Boulder model – an even bolder model, if you will. I will argue that (1) all mental health care providers (including PsyD and social workers) need to be trained in the practice and theories of empirically-supported treatments; (2) clinical practice needs to be based on theory, not treatment manuals; and (3) clinical practice should not be constrained by the DSM.

All health care providers need to be trained in the theory and practice CBT

The current director of the NIMH, Thomas Insel, noted a few years ago in a commentary outlining the strategic plan for research on mental illnesses in the *Archives of General Psychiatry* :

While psychosocial interventions have received much less marketing attention than pharmacological treatments, the results are arguably more encouraging [...]. Many studies have found cognitive behavior therapy to be an effective treatment for mood and anxiety disorders. However, few patients actually receive evidencebased psychosocial treatments (Insel, 2009; p. 129).

One of his specific recommendations was to “remember the untapped power of select psychosocial treatments,” and he noted that “a serious deficit exists in training for evidence-based psychosocial interventions” (p. 130).

Insel's assessment goes to the heart of the problem. The evidence base of CBT is overwhelming, but the majority of patients still receive inadequate care by untrained clinicians. The evidence for CBT is crystal clear: It works! In a recent review of meta-analyses, we identified 269 meta-analytic reviews examining CBT for virtually every psychiatric and psychological problem, including substance use disorder, schizophrenia and other psychotic disorders, depression and dysthymia, bipolar disorder, anxiety disorders, somatoform disorders, eating disorders, insomnia, personality disorders, anger and aggression, criminal behaviors, general stress, distress due to general medical conditions, chronic pain and fatigue, distress related to pregnancy complications and female hormonal conditions (Hofmann, Asnaani, Vonk, Sawyer, & Fang, 2012). We found the strongest support of CBT for anxiety disorders, somatoform disorders, bulimia, anger control problems, and general stress. These treatments are typically effective with children, adults, and older adults and they last longer and are less likely to require additional treatments than pharmacotherapy (APA, 2013).

Given the efficacy and high cost-effectiveness of virtually all empirically supported treatments, and especially CBT, it is shocking that this treatment is still not the first-line intervention for mental disorders. For many disorders, such as anxiety disorders, most patients receive psychodynamic therapy (Goisman, Warshaw, & Keller, 1999), whereas complementary and alternative medicine treatments accounted for about a third of all mental health visits (Wang et al., 2005).

This is in large part due to inadequate training. The APA Division 12 Task Force report (Crits-Christoph et al., 1995) showed that in 1995, over 20% of doctoral training programs did not provide even minimal coverage of empirically validated treatments in didactic courses, and internship programs usually did not require trainees to be competent in any of these treatments before completion of the program. Although the situation for PhD programs seems to have improved, the situation is still dismal for other training programs. A large national survey of 221 training programs that included training for psychiatrist, PhD- and PsyD-level psychologists, and social workers showed that only 20% of PsyD and 21% of social work programs, the 2 disciplines with the largest number of students, required didactic or clinical supervision in CBT, which was identified by the survey as the most popular form of evidence-based therapy (Weissman et al., 2006).. Interestingly, 90% of the psychiatry residency programs offered CBT trainings, although they reported the highest percentage of obstacles to these trainings (e.g., that the training is "too time-consuming"). The authors hypothesized that a large number of psychiatry programs offered evidence-based therapy training because of the CBT requirement that was passed by the psychiatry accreditation board. This highlights the importance of implementing specific training requirements in order to ensure that treatments are disseminated. This process is likely facilitated if trainees are educated in the underlying science of the treatment procedures.

Clinical practice needs to be based on theory, not just treatment manuals

CBT is deceptively simple. Its simplicity is deceiving, because some of the core assumptions appear to be based on truisms rather than sophisticated theories. However, when translating the model into clinical practice, the treatment approach might seem initially

counter-intuitive to some (e.g., instructing a patient with social anxiety disorder to behave socially inappropriate), may appear radical to others (e.g., asking a spider phobic to handle a tarantula), and might challenge some inaccurate beliefs of the treating clinician (e.g., thinking that inducing a panic attack can lead to a physical catastrophe).

CBT is not specifically linked to a particular philosophical tradition. The philosophical foundation most closely associated with CBT is critical rationalism, an epistemological philosophy (Popper, 1959) that shares its philosophical roots with the contemporary natural sciences. The core assumption of critical rationalism is that knowledge can only be gained by attempting to falsify hypotheses that are derived from scientific theories. Based on this philosophy, knowledge is objective and, thereby, shows properties and consequences that are not reducible to whatever one prefers the truth to be.

Following the same philosophical principle, patients in CBT are encouraged to generate hypotheses based on their beliefs (theories) about the world, themselves, and their future. Using exposure procedures and other techniques, the patient is encouraged to test and revise the maladaptive beliefs, which eventually result in a reduction of emotional distress.

Acceptance and Commitment Therapy (ACT) differs from this theoretical view. As described by Herbert, Gaudiano, and Forman (this issue), ACT is rooted in functional contextualism, which is quite different from the aforementioned philosophical approach of the contemporary natural sciences. I will resist the temptation to dive into a comparison between these theoretical perspectives and instead refer the reader to other sources (David & Hofmann, 2013; Hofmann & Asmundson, 2008; Hayes, Barnes-Holmes, & Wilson, 2012), including articles in an upcoming issue of this journal (Hayes, Levin, Plumb, Villatte, & Pistorello, in press; Herbert & Forman, in press; Hofmann, Asmundson, & Beck, in press).

A number of seemingly subtle but important differences in the theoretical perspectives have created some of the most controversial discussions among members of a work group that was charged with developing recommendations for treatment guidelines in CBT (Klepac et al., 2012). These differences are important because they drive scientific progress. Although these issues do not need to be resolved for developing and testing effective treatment manuals (because most techniques are compatible with both theoretical models), they should be taught to our future generations of scientist-practitioners to further advance the field.

Despite its bad reputation (Addis, & Krasnow, 2000), a good treatment manual can be a useful training tool and clinical aid (Kazdin, 2000; Kendall, 1998), but it cannot replace a solid clinical training and theoretical knowledge. Abramowitz (this issue) hypothesizes that the lack of emphasis on theoretical models might be a by-product of the field's current emphasis on treatment manuals, outcome research, and dissemination efforts. However, as Abramowitz notes, even the seemingly easy techniques of exposure therapy require solid knowledge about its underlying and highly complex mechanism in order to achieve maximum short- and long-term outcome.

As noted by Baucom and Boeding (this issues), theory is important because treatment of complex clinical cases cannot proceed in a lock-stepped fashion that could be manualized and presented to all patients in a standard manner. Instead, the clinician needs to have a

nanced and sophisticated knowledge of the various factors that may contribute to and maintain psychological problems and needs to have the ability to flexibly choose interventions based on this knowledge. Baucom and Boeding (this issue) refer to this approach to case conceptualization and treatment planning *astop-down thinking*, because the theory serves as the basis for the clinical decision making process. In addition, a *bottom-up* approach could further strengthen the clinical relevance of a treatment approach by including an expert panel of clinicians in the development and evaluation team of a new treatment, as suggested by Dobson and Beshai (this issue). This approach could capitalize on the practical experience of front-line clinicians and further counter some of the objections often raised against treatment manuals as being too rigid and inflexible for clinical use (Addis & Krasnow, 2000; Kazdin, 2000; Kendall, 1998).

Psychological treatments have to move beyond the DSM boundaries

Since its beginning, CBT has undergone extensive scientific scrutiny through empirical testing in RCTs, component analyses, and mediation analyses. As a result, CBT today is no longer a monolithic approach. Therefore, as noted by Herbert, Gaudiano, and Forman (this issue), it is inappropriate to talk about *the* CBT. Instead, it is more accurate to use the plural (“the CBTs”) because the specific technique and theory depends on the particular patient and his/her specific problem and context, as already noted by Paul (1967). This is in line with Koerner’s (this issue) recommendation to move away from *psychotherapy technology model*, which assumes a mechanistic, dose-dependent relationship between treatment ingredient and therapy response, and toward a

One of the reasons for the plethora of the different CBT protocols may be a by-product of the DSM. As noted by Abramowitz (this issue), DSM diagnoses are descriptive, atheoretical, and based primarily on symptoms, as opposed to psychological mechanisms. In contrast, CBT is a theory-based approach that is tailored to specific syndromes. The initial CBT model was developed to explain the pathological processes in depression (Beck, 2005). Subsequent versions evolved to specifically target the various DSM categories (e.g., Beck & Dozois, 2011). This is not to say that CBT adopted a medical model perspective. In contrast, the CBT model provided an alternative, psychological approach to psychiatric categories (e.g., Clark, 1986). Within each DSM category, we can assume a considerable degree of heterogeneity of etiological and maintenance factors of similar syndromes. Similarly, patients from different DSM categories very likely share similar maintenance factors that can be effectively targeted by CBT.

In an attempt to re-unite these different approaches and to facilitate dissemination, some authors have begun to develop transdiagnostic CBT protocols that cut across diagnostic categories by focusing on specific dysfunctional emotion regulation strategies (e. g., Barlow, Farchione, Fairholme, Ellard, Boisseau, Allen, & May, 2010; Hofmann, Sawyer, Fang, & Asnaani, 2012). Since CBT treatments have historically developed to address DSM categories articulated by psychiatric models of mental illness, maybe the time is ripe to reverse this trend by using CBT theory to inform nosology.

Another important step toward bridging the theory-practice gap is to study treatment mechanisms and moderators of treatment outcome. This issue was already clearly verbalized by Gordon Paul when he encouraged investigators to ask: “What treatment, by whom, is most effective for this individual with that specific problem, and under which set of circumstances?” (Paul, 1967; p. 111). Our field has made considerable advances in identifying mediators and moderators of treatment change, which are generally in support of the generic CBT model. However, much more work still needs to be done. In my opinion, some of the most promising and exciting work comes from studies that examine predictors and mechanisms of CBT using modern neuroscience methods (Doehrmann et al., 2013; Siegle, Carter, Thase, 2006) and other translational research strategies (e.g., Beck, 2008; Hofmann, 2007). These methods may at some point be used to personalize the intervention to a given client in order to maximize treatment outcome (e.g., fMRI data might be used to choose the best possible treatment for a given client; Hofmann, 2013) Another important and largely unexplored avenue is to examine the impact of our treatments on the patient’s quality of life and well-being, rather than limiting our assessment of treatment response to negative affect and clinical symptoms. Some approaches, such as ACT, have already begun to emphasize valued living over mere symptom reduction as a treatment goal.

Discussion

Kurt Lewin, the Behaviorist-turned Gestalt Psychologist, is credited with saying *There is nothing more practical than a good theory*. I might add: A good theory and a good manual are practically essential in order to do good psychotherapy.

CBT is a general scientific approach to psychological disorders that has been the foundation of a wide variety of psychological treatments. The overarching principle of these interventions is that cognitions causally influence emotional experiences and behaviors. The evidence for this idea is overwhelming. Not surprisingly, Aaron T. Beck received the Lasker Award in 2006, the most prestigious medical prize that is often bestowed to individuals who later win the Nobel Prize. The chairman of the Lasker jury, Joseph L. Goldstein, noted that “cognitive therapy is one of the most important advances — if not the most important advance — in the treatment of mental diseases in the last 50 years” (Altman; New York Times, 2006, September 17).

Given the success and visibility of this approach, it is very surprising that CBT is still not the mainstream treatment and why not every mental health care provider is trained in this essential approach, just as any medical professional is trained in basic medical knowledge and essential medical procedures. At the risk of being overly simplistic, the situation is not unlike receiving an injection as part of an immunization procedure. In order to receive adequate treatment the clinician needs to know: (1) how to administer an injection and (2) what injection to administer (i.e., the clinician needs to be trained in the practice and theory of the approach). Both skills are needed – the theoretical skills about the disorder (i.e., the illness the vaccine is being used for) and the practical skills about administering an injection.

Translated to psychotherapy, Miller (1990) proposed a framework for assessing the clinical skills as those that assess the therapists’ knowledge (does the therapist know what treatment

is needed?), the practical understanding (does the therapist know how to administer the treatment?), and the practical application of the knowledge and skill in clinical practice (does the therapist know how to administer the treatment to this patient in this setting?). Training clinicians in the science and theory of CBT gives clinicians the tools to adopt techniques to any given problem, patient, and context. This is an essential step toward personalized medicine.

Little is known about the best way to train clinicians in CBT and other empirically supported treatments. Didactic instructions, workshop, reading and web-based learning are all important training methods (Rakovshik, McManus, 2010). These training methods should be practical, cost-effective and useful instruments. Examples include questionnaires, essays, assessments based on supervision, standardized role plays, etc. (Muse & McManus, 2013). Although these skills are difficult to operationalize, it is important to avoid oversimplification. In fact, some treatments require extensive training depending on the trainee's prior experience and skills. Extensive trainings can be costly or impractical. In such cases, graded trainings that vary in dosing, spacing, and degree of scaffolding, allow for a more efficient allocation of resources for training heterogeneous groups of people (Rakovshik, McManus, 2010). Baucom and Boeding (this issue) provide an example of how theory, research, and clinical implementation can be combined in an integrated fashion by focusing on the patient, rather than theory per se. The current large-scale dissemination efforts in the UK (Improving Access to Psychological Services, IAPT) use similar strategies that will likely serve as a template for future initiatives that are bound to happen all over the world, including the US.

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Highlights

- > Cognitive behavioral therapy is an effective treatment
- > few therapists are trained in the theory and practice of CBT.
- > all mental health care providers need to be trained in CBT
- > clinical practice also needs to be based on theory, not just treatment manuals
- > psychological treatments have to move beyond the DSM boundaries.