TCC moderna: caminhando para terapias baseadas em processos

Modern CBT: Moving Toward Process-Based Therapies

RESUMO

Um novo paradigma em psicologia clínica está surgindo. Este paradigma questiona a validade e a utilidade do modelo de doença médica da terapia baseada em evidências, que pressupõe que existem entidades de doença latente que devem ser direcionadas com protocolos de terapia específicos. A nova geração de cuidados baseados em evidências começou a se mover em direção a terapias baseadas em processos que visam mediadores e moderadores centrais baseados em teorias testáveis. Isso poderia representar uma mudança de paradigma na ciência clínica com implicações de longo alcance para a criação e disseminação de intervenções baseadas em evidências.

Palavras-chave: Terapia cognitivo-comportamental; terapias baseadas em processos; intervenções baseadas em evidências

ABSTRACT

A new paradigm in clinical psychology is emerging. This paradigm is questioning the validity and utility of the medical illness model of evidence-based therapy, which assumes that latent disease entities exist that should be targeted with specific therapy protocols. A new generation of evidence-based care has begun to move toward process-based therapies that target core mediators and moderators based on testable theories. This could represent a paradigm shift in clinical science with far-reaching implications for the creation and dissemination of evidence-based interventions.

Keywords: Cognitive behavioral therapy; process-based therapies; evidence-based interventions

DOI: 10.5935/1808-5687.20180012
Relieving human suffering requires powerful conceptual tools in order to parse human complexity into a manageable number of issues. It requires clinical creativity that will lead to the successful targeting of key domains and dimensions of human functioning. It depends on methodological tools that permit the development of generalizable knowledge from detailed experience with myriad individuals. Two disciplines, psychiatry and behavioral sciences, share the same goal to relieve human suffering. However, they operate off different paradigms and utilize different tools to accomplish this goal.

In the early days of the behavior therapy movement, the late Gordon Paul, then just a few years past his PhD, asked one of the most widely cited questions about the proper goal of a science of evidence-based interventions: “What treatment, by whom, is most effective for this individual with that specific problem, under which set of circumstances, and how does it come about?” (Paul, 1969, p. 44). This incited a new scientific approach to therapeutic intervention: specified and tested interventions for specific problem areas that fit the needs of individuals based on known processes of change.

This promising beginning did not quite extend far enough into the field, however, because the early days of behavior therapy relied on learning principles and theories that were largely drawn from the animal laboratory, in the absence of similarly well-developed theories of human cognition and emotion. Indeed, excessive confidence in learning principles may explain why two years earlier Paul had not included the phrase “and how does it come about” in the original formulation of this question, focusing entirely on contextually specific evidence-based procedures (Paul, 1967). The early behavior therapists generally assumed that the learning laboratories could be trusted to map out needed principles of change for intervention science (Franks & Wilson, 1967).

Our argument is that the field has now developed sufficiently to return to an expanded form of Paul’s original vision. We believe that the time is ripe for modern psychotherapy and intervention science to focus on a new foundational question: “What core biopsychosocial processes should be targeted with this client given this goal in this situation, and how can they most efficiently and effectively be changed?” (Hofmann & Hayes, in press). Answering this question is the goal of any form of Process-Based Therapy (PBT), which can be defined as the contextually specific use of evidence-based processes linked to evidence-based procedures to help solve the problems and promote the prosperity of particular people. In contrast to treatments focused on syndromes, PBT targets theoretically-derived and empirically-supported processes that are responsible for positive treatment change. It is our view that such a process-based approach is the key for the future of evidence-based care.

For the following discussion, it is important to clarify a few key terms. Most importantly, we need to distinguish the underlying therapeutic processes from the therapeutic procedures that are utilized in treatment. Therapeutic procedures are the techniques or methods that a therapist utilizes to achieve the treatment goals of the client: the defined and measurable outcomes that the therapist and client have agreed upon. Such goals are not static goal posts, but they may change as treatment progresses. Usually, therapy is directed toward multiple goals, which can often be arranged in a hierarchy depending on priority, immediacy, difficulty, or related dimensions.

Therapeutic processes are the underlying change mechanisms that lead to the attainment of a desirable treatment goal. We define a therapeutic process as a set of theory-based, dynamic, progressive, and multilevel changes that occur in predictable empirically established sequences oriented toward the desirable outcomes. These processes are theory-based and associated with falsifiable and/or testable predictions; they are dynamic, because processes may involve feedback loops and non-linear changes; they are progressive in the long-term in order to be able to reach the treatment goal, they form a multilevel system, because some processes supersede others. Finally, these processes are oriented toward both immediate and long-term goals.

It should be noted that the term therapeutic process sometimes used in the literature to refer broadly to the patient-therapist relationship that includes so-called common factors, such as the therapeutic alliance and other factors of the therapeutic relationship. The term therapeutic process, as we use it, can include this more traditional use of the term as long as such processes are based on a clearly defined and testable theory, and met the empirical standards we are suggesting. It is not, however, synonymous with that traditional use.

Our argument is not new. In fact, it brings us back to the very beginning of behavior therapy and its foundational element - functional analysis. Functional analysis utilizes sidio- graphic assessments of a target behavior and the history and context in which it occurs to identify the functional relationship between variables that cause or contribute to the occurrence of this behavior (for a review, see Haynes & O’Brien, 1990). The historical and philosophical roots of functional analysis are based on Skinner’s approach to the analysis of action in its historical and situational context (e.g., Skinner, 1953). In clinical contexts it has expanded beyond the analysis of direct acting contingency to include “the identification of important, controllable, causal functional relationships applicable to a specified set of target behaviors for an individual client” (Haynes & O’Brien, 1990, p. 654). This approach has been a guiding principle since the early days of behavior therapy and has been embraced by many notable scholars, including Albert Bandura, David Barlow, Walter Mischel, Arthur Staats, Gerald Davison, to name only a few. That early and promising emphasis on functional analysis changed, however, when modern psychiatry adopted structuralism for its nosology.
THE LATENT DISEASE MODEL OF PSYCHIATRY

Mental health care professionals have been engaged in a long and heated debate over how to best define, classify, and treat mental disorders (Varga, 2012). The official definition of a mental disorder in the psychiatric nosology is “a syndrome characterized by clinically significant disturbance in an individual’s cognition, emotion regulation, or behavior that reflects a dysfunction in the psychological, biological, or developmental processes underlying mental functioning” (APA, 2013, p. 20). To explain such a “dysfunction,” the DSM has adopted a medical illness model. This model makes the assumption that symptoms reflect underlying and latent disease entities. Earlier versions of the DSM were based on psychoanalytic theory and assumed that mental disorders arise from deep-seated conflicts; modern versions point to dysfunctions in biological, genetic, psychological, and developmental processes as the primary cause. Unfortunately, there is scant evidence that the latent disease model has met that criterion for success.

THE QUEST TO LINK TREATMENT TO SYNDROME

For nearly 50 years, intervention science has pursued the dream of establishing evidence-based therapy by testing protocols for syndromes in randomized trials (e.g., Thompson-Hollands, Sauer-Zavala, & Barlow, 2014). Government agencies also wanted to see the development of evidence-based therapy, but they had their own ideas about how to do so, driven largely by ideas from the psychiatric establishment. After the third version of the DSM was developed in 1980, the United States NIMH decided to pour resources into funding randomized trials of specific protocols targeting psychiatric syndromes.

This combination had an enormous impact on the field of CBT and on evidence-based therapy in general, bringing prestige and attention to psychotherapy developers while also inadvertently narrowing their vision. In the grand arc of history, these developments did a lot of good for the field. The study of protocols for syndromes captured some of the essence of Paul’s agenda, and there was a large increase in the amount of data on psychotherapy and other psychosocial interventions, the impact of psychiatric medications, the development of psychopathology, and other key issues. Among other things, the concerns raised by Eysenck (1952) about whether evidence-based psychotherapy could be shown to be better than doing nothing at all were answered once and for all. CBT was a prime beneficiary of this growth of evidence, leading to its current position as the most empirically-supported intervention approach.

As the new research program unfolded in the thirty-year period between 1980 and 2010, it was extremely discouraging. Scientifically speaking, that a focus on syndromes never seemed to lead to conclusive evidence on etiology, course, and response to treatment. In other words, a syndromes approach never led to the discovery of diseases, which is the ultimate purpose of syndromal classification. Comorbidity and client heterogeneity was so great within syndromal groups that traditional diagnosis felt more like an empty ritual than a vitally important and progressive process. The treatment utility of syndromes was weak, and lack of specificity in treatment linked to DSM categories was more the rule than the exception. The biomedicalization of human suffering that underlay these developments, left behind several key features of Paul’s clinical question. The new question intervention scientists were answering—“What protocol is best for the symptoms of this syndrome?”—failed to adequately capture the needs of the individual, the context of interventions, the specificity of procedures, the specificity of problems, and the link to processes of change. In other words, protocol and syndrome-based empirical therapy left behind a number of the defining features of the initial PBT approach of behavioral and cognitive therapy.

The field is still dealing with the practical and intellectual challenges that resulted from the decades of DSM domination. Theory suffered and a more purely technological approach blossomed. How important are processes and principles if they are just used as a vague setup for technologies and are not formally tested as moderators and mediators of intervention? If theory development is merely an untested ritual to engage in before the real action of protocol development linked to syndromes occurs, the inability to develop robust theories of behavior change should be expected.

THE TRADITIONAL CBT APPROACH

For decades, psychologists have been creatively developing psychological models as alternatives to psychiatric disease models to conceptualize and treat mental disorders. Indeed, even though CBT went along for the DSM ride, it never set aside a concern for principles and models. The problem was that a full-throated embrace of a PBT agenda was interfered with by the “protocols for syndromes” emphasis of funders and as a result certain key questions were missed. CBT prospered in the era of protocols for DSM-defined syndromes (Hofmann, Asnaani, Vonk, Sawyer, & Fang, 2012) and the underlying behavioral and cognitive models performed well. The problem areas were more in what was not being studied than what was. Mediation studies were under-emphasized, so the functional importance of process change was at times not sufficiently well-established. The range of treatment approaches that were tested in relation to particular models were somewhat restricted, which raised the possibility that third variables could explain the theoretical evidence and that the treatment implications of process-evidence might be less direct. Clarity about philosophical assumptions remained largely unexplored or underdeveloped. The term CBT became very broad, referring a large family of interventions, sometimes containing contradictory assumptions about the centrality of key theoretical ideas. On the positive side, CBT was generally recognized the treatment with the most extensive empirical support (Hofmann, Asmundson, & Beck, 2012). On the negative side, progress toward CBT as a vibrant version of PBT was slowed after a promising start.
The Next Generation of CBT

A concern over processes of change was re-emphasized when controversy over the so-called “third wave” of CBT emerged (Hayes, 2004). Newer forms of CBT had appeared that lay outside of traditional behavioral or cognitive models, such as mindfulness-based cognitive therapy, dialectical behavior therapy, meta-cognitive therapy, acceptance and commitment therapy (ACT), functional analytic psychotherapy, and several others. These methods emphasized issues such as emotion, mindfulness, acceptance, sense of self, meta-cognition, the relationship, attentional flexibility, and values, many of which were more focused more on the persons’ relationship to experience than on the content of experience itself. There was a notable sense of openness to new concepts and methods—a key claim was that the third wave “reformulates and synthesizes previous generations of behavioral and cognitive therapy” while encouraging CBT to expand into “questions, issues, and domains previously addressed primarily by other traditions” (Hayes, 2004, p. 658) but “from a scientific point of view, with an interest in coherent theory, carefully assessed processes of change, and solid empirical outcomes” (p. 660).

The notion that a “third wave” of CBT had arrived led to scientific debates, including among the authors of the present paper (e.g., Hofmann & Asmundson, 2008). The “wave” metaphor suggested to some that previous generations of work would be washed away. However, this was neither the intent nor the result. Waves washing ashore assimilate and contain previous waves; but they also leave behind a morphed shore. We are now in a position to begin evaluating what is being left behind by this era of work in CBT.

Undoubtedly, there are several methods and concepts that are now part of the CBT tradition and other evidence-based therapies more generally (e.g., acceptance-based procedures; mindfulness methods; cognitive defusion; de-centering; values; psychological flexibility processes). The retention of interest in this notably broader range of concepts and methods is in large part due to the empirical evidence suggesting that they can be clinically helpful and cost-effective (e.g., A-Tjak, Davis, Morina, Powers, Smits, & Emmelkamp, 2015; Feliu-Soler et al., 2018; Hofmann, Sawyer, Witt, & Oh, 2010; Khoury et al., 2013). Third wave approaches have also been added to packages that include traditional cognitive and behavioral methods, resulting in useful and new interventions (Arch, Eifert, Davies, Vilardaga, Rose, & Craske, 2012). These newer concepts and approaches now co-exist with established ones. The dialectic between them serves as a useful new branch to theoretical and technological investigation.

In addition, there has been an increased recognition within CBT of the importance of philosophical assumptions that give rise to methods of intervention and their investigation. For science to evolve, we need pre-analytic assumptions about the nature of data, truth, and the questions of importance. Some of the differences between the waves and generations of CBT were philosophical rather empirical. To this point, the Inter-Organizational Task Force on Cognitive and Behavioral Psychology Doctoral Education (Klepac et al., 2012) concluded that all CBT training programs going forward should place more emphasis on philosophy of science training in order to increase the progressivity and coherence of research programs.

Finally, there has been a notable re-emphasis on the centrality of the issue of process of change and of moderation and mediation in particular, to the behavioral and cognitive therapies. Baron and Kenny defined a moderator as the mechanism through which the focal independent variable is able to influence the dependent variable of interest (Baron & Kenny, 1986). In contrast, a moderator is a variable that affects the direction and/or strength of the relation between an independent or predictor variable and a dependent or criterion variable (Baron and Kenny, 1986). Since this seminal paper, a number of revisions and clarification for the testing of moderation and mediation (and moderated mediation) have been provided (Holmbeck, 1997; Hayes & Preacher, 2014; Judd & Kenny, 1981; Kraemer, Wilson, Fairburn, & Agras, 2002; MacKinnon, Lockwood, Hoffman, West, & Sheets, 2002). Most analysts today would agree that a statistically significant mediator is not synonymous with a generative mechanism because third variables can always exist (e.g., Tryon, in press) and a detailed, pragmatically useful, and theoretically consistent account of how an intervention translates into events that leads to the outcome is still required (Kazdin, 2007). Instead there is a recognition that the identification of mediators and moderators are first steps in producing an adequate account of the relationships between all of the variables that can be involved in changes processes, including clinician factors, client factors, and actual mechanisms of change (Nock, 2007). In other words, knowledge about moderators and mediators provides evidence from which causal and functional accounts can begin to emerge (Kazdin, 2007; Kazdin & Nock, 2003).

The combination of new ideas, examination of assumptions, and a renewed emphasis on the centrality of processes of change has begun to change our views of what CBT encompasses and how it works. We now know that traditional CBT methods sometimes work in part by changing processes that were elucidated during arrival of third wave methods—for example, CBT-based exposure for anxiety disorders works in part through cognitive defusion (Arch, Woltzky-Taylor, Eifert, & Craske, 2012). Process-based evidence notably expanded the range of methods that needed to be considered as treatment options. Take, for example, the data on the centrality of catastrophic thoughts in panic. At first glance a logical implication of this finding is that changing catastrophic thoughts must be the treatment focus, but as the CBT research focus broadened and it turned out not to be so direct. For example, patients high in catastrophic misappraisal actually did better with capnometry assisted respiration training than CBT (Meuret, Hofmann, & Rosenfield, 2010).
Research has begun to identify moderators that indicate when specific methods, both old and new, work best for different populations. For example, it appears that patients with an anxiety disorder alone may do better with traditional CBT than ACT, while those who are also co-morbid with mood disorders may do better with ACT than traditional CBT (Wolitzky-Taylor, Arch, Rosenfield, & Craske, 2012). Data of this kind suggests that evidence-based practitioners can best help their patients by utilizing strategies from all of the CBT generations, linked to evidence of moderation and mediation.

This suggests that the field is now developing greater sophistication about what is needed to create progress in a post-DSM era. When theory and processes of change are brought to the forefront, training will be needed in philosophy of science, scientific strategy, ethics, and the broad range of domains from which principles can arise. Furthermore, more emphasis should be placed on linking procedures to principles, and in fitting procedures to the particular needs of a particular case in an ethical and evidence-sensitive manner. Such an evaluation of assumptions naturally leads to questions about theories, models, and processes.

**A Move Toward Process-Based Therapy**

It is our argument that process-based CBT (PB-CBT) is rapidly becoming the vital core of CBT itself. Modern CBT places much less focus on protocols for syndromes, and more focus on evidence-based processes linked to evidence-based procedures (Klepac et al., 2012; Hayes & Hofmann, 2018). CBT contains core client processes and treatment procedures that are common to many specific approaches. Examples include contingency management, stimulus control, shaping, self-management, arousal reduction or management, attentional flexibility, coping and emotion regulation, problem solving, exposure strategies, behavioral activation, interpersonal skills, cognitive flexibility and reappraisal, modifying or addressing core beliefs, defusion/distancing, psychological acceptance, values, mindfulness, and motivational strategies, and crisis management, among others (Hayes & Hofmann, 2018; cf., Klepac et al., 2012). Each of these competencies focus on theoretically-derived and testable mediators and moderators that link these methods to the process domains and principles.

Some, but not all, of these CBT competencies target specific therapeutic processes (e.g., cognitive flexibility and defusion/distancing), whereas other competencies represent specific treatment strategies (e.g., exposure). Treatment strategies generally target a number of different processes and any particular process is likely to be changed through a number of possible strategies (e.g., psychological flexibility may be changed both through exposure and mindfulness practices). Various processes could likely be arranged in a hierarchy of specificity in which some processes may be subsumed underneath others. For example, it may be that reappraisal/modifying core beliefs can be subsumed under a broader category of cognitive flexibility.

Speculations such as these await the kind of empirical support that requires research to move in a process-based direction. As these data accumulate, new and more advanced treatment models may then point to further links and new processes.

These CBT-based processes can be expanded by processes studied in traditions outside of CBT such as attachment, autonomy, or mentalization. This expansion of vision and participation seems to portent an even more profound transition. The greater emphasis on processes of change and their biobehavioral influence is being increased by changes in research funding (Insel et al., 2010), which in turn is impacting evidence-based care across the board, not just CBT. The ascendance of transdiagnostic and unified models (Barlow et al., 2004) and a heightened focus on moderators and mediators of change applies to all intervention methods.

CBT itself is becoming a vehicle for these changes since it is now more open to the studies of a wider range of approaches from existential, analytic, humanistic, systemic, and spiritual traditions. A process-focus promises the gradual elimination of walled off schools of thought and trademarked intervention protocols within intervention science, in favor of a far more catholic approach that can bring together different traditions in an evidence-based search for coherent and powerful change processes. The term CBT might stretch to a breaking point as evidence-based care moves toward a process-based field that seeks to integrate the full range of psychosocial and contextual biological processes into behavior change. We would not be surprised if the term CBT loses its importance as PBT is embraced across traditions.

The impact of redirecting attention to processes of change is not limited to therapy methods focused on psychopathology. As the syndromal focus weakens while a process focus strengthens, the thriving of whole persons and human psychological prosperity also naturally becomes more central. Mental health is ultimately about health, not only the absence of disorders. Many of the process of change that are now central in evidence-based methods are based on a psychology of the normal, and there is no reason not to explore their relevance to broad human concerns, beyond psychopathology.

Researchers and practitioners alike seem ready for a new day of evidence-based care that addresses the needs and strengths of individuals. Consistent with the overall trend toward personalized and precision medicine, focusing on change processes provides a way for evidence-based methods to be person-centered. Reorienting the field back in a direction of process-based care might ultimately be the most important “changed shore” left behind by the latest wave of CBT.

Examining evidence-based interventions in light of the ideas outlined in the new training standards allows the field to redefine evidence-based therapy (EBT) itself to mean the targeting of evidence-based process with evidence-based procedures that resolve the problems and promote the prosperity of individuals. In other words, we are headed toward a day in which EBT is PBT, and PBT is EBT.
Clinical science might see a decline of named therapies defined by a set of technologies, a decline of broad schools, a rise of testable models, a rise of mediation and moderation studies, the emergence of new forms of diagnosis based on functional analysis, a move from nomothetic to idiographic approaches, and a move toward processes that specify modifiable elements. These changes could integrate or bridge different treatment orientations, settings, and even cultures.

**Taking Down the Walls Between Traditions, Schools, and Waves**

We would like to conclude this article on a personal note that seems relevant and, we believe, is hopeful for the impact of PBT. Although both of us have served as presidents of the Association of Behavioral and Cognitive Therapies (ABCT), our philosophical backgrounds are quite different. We are both considered prominent figures in the communities representing two seemingly opposing camps in contemporary CBT: the acceptance and commitment therapy/new generation CBT and the Beckian/more traditional CBT, respectively. After a stormy beginning with countless heated debates in writing (e.g., Hofmann & Asmundson, 2008) and during panel discussions (often resembling the academic version of boxing matches or wrestling events), we became close friends and collaborators. What drew us together scientifically was two things: an appreciation of our philosophical differences, and our shared recognition that processes of change that apply to particular people need to be given empirical priority: not broad schools, or general approaches. As that foundational focus took hold, we found it remarkably easy to re-envision CBT as a form of PBT, despite our differences. We have recently completed a book on PB-CBT (Hayes & Hofmann, 2018) that begins to reorganize CBT interventions around known processes of change. Our recent edited volume (Hayes & Hofmann, 2018) describes a number of new diagnostic methods linking these processes to evidence-based intervention components. We have found that a process-focus has turned difficult arguments (for example, between the “waves” of CBT) into manageable empirical issues, explored in the context of acknowledged philosophical differences.

Buoyed up by that experience, we see the possibility of PBT to move the science and practice of clinical intervention forward across an even wider range of traditions. In our view, the foundational PBT question (“What core biopsychosocial processes should be targeted with this client given this goal in this situation, and how can they most efficiently and effectively be changed?”) applies regardless of school of thought or therapy approach.

If we are right in that claim, its very breadth seems likely to change our field. Ironically, over time a process-based approach seems likely to shorten the life of CBT as a clearly distinct approach compared to evidence-based therapy more generally. This will not occur because all evidence-based methods will be shown to emerge from CBT. Rather, as CBT reorients toward issues that were previously the focus only of other therapy traditions, there will be fewer and fewer reasons to distinguish CBT from analytic, existential, humanistic, or systemic work. We are not (yet) calling for an end to the use of the term “cognitive behavior therapy.” However, we can see a day when the term will add little to our description of the current field.

We are not sure if all of these trends will unfold, nor if they will do so anytime soon. However, many of the shifts mentioned in this paper are already underway, so there is no doubt that the world of psychological intervention is changing. The question is whether we will choose to grasp this moment and take the field in a PBT direction. It is our argument that we should do so. A more process-focused approach will help today’s students push out the boundaries of tomorrow’s consensus. The goal is progress. People are in need and are seeking answers from our field. It is up to us to provide for them.

The era of protocols for syndromes is over, and the collapse of that former vision gives CBT and evidence-based therapy more generally a chance to reconsider its future from the ground up. The agenda suggested by PBT is positive, possible, and progressive. We hope this article offers not just a snapshot of where we are today but also shines a beacon toward a powerful and useful place we can go.

**Author Note**

Dr. Hofmann receives financial support from the Alexander von Humboldt Foundation (as part of the Humboldt Prize), NIH/NCCIH (R01AT007257), NIH/NIMH (R01MH099021, U01MH108168), and the James S. McDonnell Foundation 21st Century Science Initiative in Understanding Human Cognition – Special Initiative. He receives compensation for his work as an advisor from the Palo Alto Health Sciences and for his work as a Subject Matter Expert from John Wiley & Sons, Inc. and Silver Cloud Health, Inc. He also receives royalties and payments for his editorial work from various publishers.

Dr. Hayes receives financial support from NIH/NCCAM (R44AT006952) as well as royalties and payments for his editorial work from various publishers.


**REFERENCES**


Rosen, G. M., & Davison, G. C. (2003). Psychology should list empirically supported principles of change (ESPs) and not credential trademarked therapies or other treatment packages. *Behavior Modification, 27*, 300-312. doi: 10.1177/014544503253829


