Commentary on Chapter "Case Formulation in Process-Based Therapies": Process Based CBT as an Approach to Case Conceptualization

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Contents

The Innovation of Process-Based Cognitive Behavioral Therapy

The chapter "Case Formulation in Process-Based Therapies" describing case formulation in Process-Based Cognitive Behavioral Therapy (PB-CBT) (Hayes and Hofmann 2018; Hofmann and Hayes 2019), focused mainly on the contribution of PB-CBT to reformulation traditional CBT interventions using functional processes terminology. The editors also discuss the integration of various treatment approaches under a broad theoretical umbrella, which allows clinicians to communicate with their colleagues, who use different therapeutic languages, and to be more flexible navigating psychotherapy. Whereas these aspects are definitely present in PB-CBT, and might benefit fruitful clinical outcome, we would like to argue that these are merely by-products of the broader innovation that PB-CBT offers. This would be the idiographic, dynamic, multifunctional and scientific approach toward case conceptualization and formulation in psychotherapy.

PB-CBT in its core is based on idiographic assessment and analysis, aimed to form and test hypotheses on how to best treat the individual based on his or her unique biopsychosocial characteristics, goals, and needs. In a different terminology,

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this is indeed the complex, shared and dynamic process of case formulation. Meeting a new client, conducting the idiographic assessment, the main question to explore is:

Given this client and his or her individual needs, what core biopsychosocial processes should be addressed and what is the most efficient and effective means of doing so?

We believe that most competent, experienced and ethical clinicians would attest that they take this question under consideration with each client. However, the question remains open regarding what evidence clinicians are using for making treatment recommendations and for engaging in therapy. Recent developments in PB-CBT indeed offer clinicians with guidelines as well as structured models to guide the assessment and case formulation process. In this Commentary, we would like to share the advanced framework PB-CBT already offers for clinicians, review main data collection and analysis techniques, and present clinical examples. These are not strict guidelines or templates for case formulation, but a broad theoretical analytic framework that guide clinician as they navigate the complex, multidimensional progressive process of case formulation.

The Framework of Process-Based Cognitive Behavioral Therapy

Case formulation in PB-CBT differs from traditional approaches in its core, as it moves far from diagnostic categories, treatment structured protocols and interventions. Latent disease models were, and still are widely prevalent in research and clinical contexts. Initially, following the assessment process people are grouped in diagnostic de-individualized categories (Greenhalgh et al. 2014). Accordingly, specific sets of information, theories and interventions are applied, and expected to encompass and benefit the entire conceptual group. These labels are in the core of traditional CBT manuals starting with the case formulation procedure. The latent disease model tends to blind treatment developers to the key role of normal psychological processes in behavioral outcomes, and to the centrality of pragmatic outcomes desired by clients such as social effectiveness or quality of life, instead prioritizing the referred list of signs and symptoms. Most of all, it tends to reduce human suffering to brain abnormalities and biological dysfunctions and de-emphasize the importance of the biopsychosocial context of the individual (Greenhalgh et al. 2014).

While the application of CBT approaches to specific disorders is decreasing with the emergence of a process-based approach (Hayes and Hofmann 2018), narrow attention to the patient's specific symptoms or presented problems remains a main feature of CBT case formulation and treatment delivery. To demonstrate these ideas, consider a client, named Sam:

Sam is a 30-year-old man, who reached out for a clinician to get help with his intrusive obsessive thoughts. Sam, is seeing a CBT trained clinician. Luckily, the

clinician is experienced enough to go beyond diagnosis and a structured manual. Treatment main goal is set for reduction in obsessions, and more specifically ability to manage the distress and interference caused by the intrusive thoughts. Sam is receiving psychoeducation about obsessions and is learning various cognitive and behaviors skills to cope and manage his thoughts in an effective way. Treatment success is then defined as reduction in interference and distress caused by the obsessions. When achieved, treatment is terminated. The question than arises, is this an excellent and satisfying outcome for the client?

PB-CBT suggests that focusing solely on the DSM or ICD-defined symptoms and on the presenting problems will lead to non-satisfactory, short-term outcomes of treatment. In PB-CBT, we will work under the assumption that a specific symptom is always a part of a network, the symptom is maintained and is also maintaining a network that is maladaptive and in the same time, resilient for change. In fact, the term *symptom* is misleading because it implies the existence of a latent disease. Instead, the term *problem* might me more appropriate. Going back to Sam:

Further exploring the presenting problem through contextual idiographic assessment, leads us to reveal that the obsessions are mainly interpersonally focused, and are maintained by past poor social experience with a woman that Sam dated 5 years ago. In the interaction, Sam felt humiliated and de-evaluated. He felt that he was misled by this woman, after giving her his trust. Further exploration reveals that current interactions in romantic contexts, are linked with negative thoughts about the future and the self, and diminished self-efficacy. Additionally, Sam tends to spend long hours watching videos at and tend withdrawal from social activities and gatherings. In these times, at home alone, Sam finds himself constantly bothered by obsessive intrusive thoughts about his past mistakes which are causing sadness and hopelessness (See Fig. 1 for a schematic representation of Sam's dynamic network model).

In the model, note that the node containing Sam's history has round edges to differentiate this node as a moderator. Whereas the squared nodes represent mediators. Additionally, thicker arrow heads represent stronger influence. For example, the strong bidirectional influence of negative emotions (i.e., sadness and anxiety) on behavioral avoidance and isolation is represented in thick arrow heads. Intrusive thoughts are highlighted as the presenting problem and the main reason to reach out for therapy.

Having this network as a map, changes the focus of treatment, from finding the best interventions to fight obsessions. Alternatively, clinician might shift to finding the best way to reduce social withdrawal and promote accurate cognitive appraisals in a client who developed emotional and behavioral avoidance strategies and obsessive thinking style following a very negative experience with women in romantic setting.

The goal of treatment is now more ambitious, rather than just reduction in symptoms, PB-CBT aims to help the client replace a maladaptive network with an adaptive one, to strengthen processes that promote well-being and experiences that goes in line with the clients' values and ambitions. For this purpose, traditional case formulation must advance.

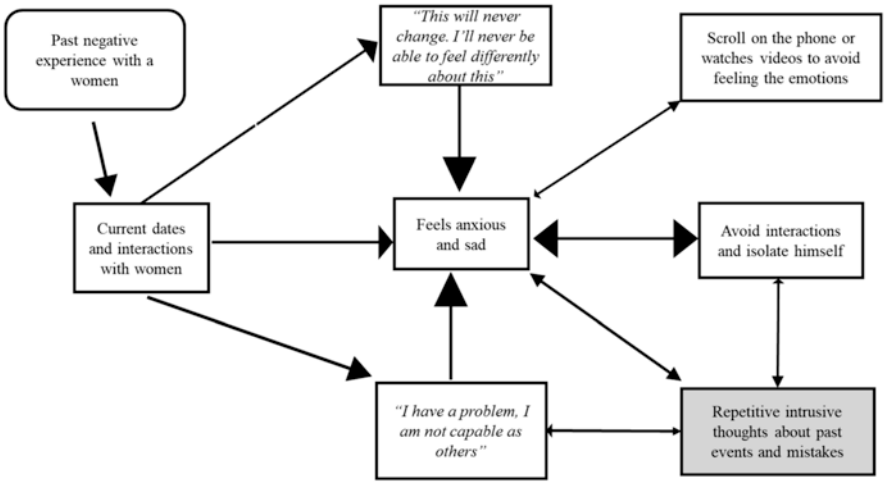

Fig. 1 Dynamic network model for Sam

Persons' (2008) case-formulation approach to CBT was an important step toward the translation of general principles to individual applications. Whereas, case formulation in its cognitive therapy traditional form, could be experienced as a didactical and mechanically directive process. Subsequently, this might lead to undermining the therapeutic alliance (Guidano 1993), lacking validation for the patient full experience and to poor or mediocre treatment outcomes. However, Persons (2008) acknowledged that most patients' presenting problems are not successfully resolved by the simple application of a single CBT protocol to a single disorder, and therefore emphasized the importance of individual differences in assessment, case formulation, and treatment planning. There have been attempts to evaluate this approach empirically (e.g., Persons et al. 2013), but further progress required theoretical, methodological and statistical innovations that Persons didn't have at that time. Today, as we describe below, there is a solid model, strong methodological and statistical tools and sufficient evidence to take this approach.

Case Formulation in Process-Based Cognitive Behavioral Therapy

Treatment starts with a contextual *idiographic assessment*. This assessment is intended to be a collaborative process in which both client and therapist examine a particular context or situation and use the clients' unique knowledge of themselves and therapists' unique knowledge of psychology to formulate a shared understanding of the process occurring in that particular context and to identify targets for intervention. Questions to facilitate this understanding might be:

"*What was going through your mind during the situation?"* or *"What were you thinking about when X happened?"* and *what happened then? How did you feel when this happened? What was going through your mind? Did anything else happen before this occur?*

The assessment builds-up toward a functional analysis. Whereas functional analysis has its roots in the early days of psychology, applying principles to individual patterns of behavior was more an art than a science, making replicable assessment difficult (Hayes and Follette 1992). Traditional functional analysis was neglected from psychology literature for decades, probably because it didn't show effectivity encompassing the complex multilevel human experience and suffering. Haynes and O'Brien (1990) explained functional analysis as the identification of relevant, causal and controllable functional relations to an individual's specific behaviors. In recent decades, functional contextualism is emphasized in the newer forms of CBT (Hayes 2016) and in relational frame theory (RFT; Hayes et al. 2001). Additionally, interventions based on a functional analytic assessment have demonstrated utility in improving clinical outcomes of some conditions (Ghaderi 2006; Hurl et al. 2016; Miller and Lee 2013). Important components of modern functional contextualism include focusing on an event as a whole, having sensitivity for context, emphasizing pragmatic truth criterion, having specific goals against which to apply that criterion, prediction, and influence. In its broader sophisticated version, modern functional analysis is being increasingly popular now in clinical and research setting.

One way to facilitate and guide contextual idiographic assessment and functional analysis is by using a functional-analytic network based on the Extended Evolutionary Meta-Model (EEMM; Hayes et al. 2019). Generally speaking, PB-CBT considers psychological disorders as reflections of maladaptive networks. In evolutionary terms, maladaptations are caused by problems in variation, selection, and/or retention of specific biopsychosocial dimensions in a given context. EEMM is a tool for researchers and clinicians to identify, study, categorize and target the processes involved in their psychopathology. Clinicians can use core change processes to determine the ways in which selection, retention, variation, and context interact to form maladaptive networks of thoughts, emotions, and behaviors. Therapeutic changes can also be seen as clients use these same evolutionary dimensions to form adaptive responses through treatment (for a more detailed review, see Barthel et al. 2020). See Fig. 2 for a scheme of EEMM.

Problems can be described as having one or more of the following facets or existing on one or more of the following dimensions: affective, cognitive, attentional, behavioral, motivational and self-related dimensions. For each of these dimensions, problems can involve variation, selection, retention and context issues. As most clients are reporting more than one problem when attending therapy, a treatment target hierarchy can help therapists identify which problems their client identifies as most important, and thus which problem areas to target in what order.

This process of generating a shared understanding of the situation and choosing a target for intervention is always collaborative. Many times, the process also includes drawing a schematic of the relevant processes. This contextual model captures the joint understanding of client and therapist and it is important that clients

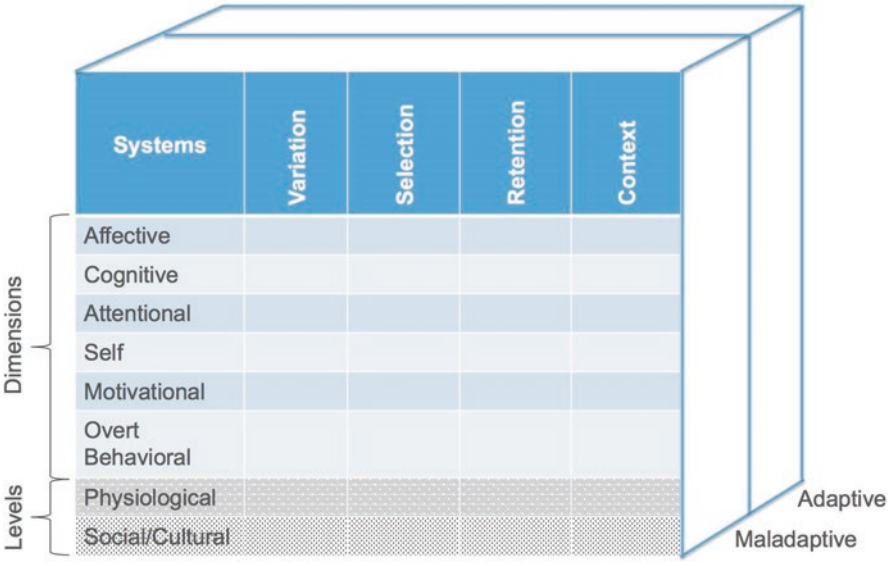

Fig. 2 The extended evolutionary meta-model (EEMM) for organizing target problems and identifying appropriate interventions (© Steven C. Hayes and Stefan G. Hofmann. Used by permission)

feel that the model is a good representation of their experience. Consider the example of Sam:

Idiographic assessment already revealed that Sam's obsessions are linked with his poor romantic past experiences. Network analysis also revealed negative biased cognitions toward the self and the future, behavioral/social withdrawal and affective avoidance. EEMM analysis might help in conceptualizing the problem on the different dimensions:

- *Cognitively, involving low variation (i.e., the client is unable to think flexibly about the situation),and is holding negative core believes regarding his competancy and self value. Additionally, Sam presents with low selection (i.e., even in the presence of alternative realistic thoughts he tends to ruminate).*
- *Affectively, involving low variation (i.e., Sam is unable to come in touch with his intense emotions in a flexible manner and use obsessions as an avoidance strategy).*
- *Behaviorally, involving low variation and selection (i.e., Sam tends to choose avoidance as main strategy and is struggling with selecting other approached type actions such as communicating his thoughts with others, facing the fears and initiating interactions to achieve better experiences).*
- *On the self dimension, Sam is holding limiting beliefs about his ability to overcome his fears and to create change in his life.*
- *From a motivational point of view, Sam seems to escape to a passive mode, were he is able to express his long-term goals and wishes, but is struggling with*

actively and consistently put effort toward promoting important life goals. Mainly, finding a partner for a committed long term relationship.
- *Potential interventions could target variation (e.g., developing alternative thoughts, engaging in exposures) and facilitate selection of appropriate and helpful strategies in the different dimensions.*
- *Lastly, applying the interventions in a way that maximizes retention (i.e., applying them with easy safer targets at first, reaching the end targets in a gradual manner).*

Case Formulation as a Progressive and Cyclic Process in Process-Based Cognitive Behavioral Therapy

Beyond explorative, context grounded questions, leading the idiographic assessment, it is necessary to implement advanced data collection strategies as integral part assessment and treatment. Thus, frequent assessments of change processes are needed to increase the intensity of the analytic focus at the level of the individual. Examples of some available methods that can be taken in clinical settings are frequent measures of processes taken in session and between sessions, and measures of social, psychological, and physical context (Hayes et al. 2019). In research setting, statistics involved in PB-CBT seek to understand meaningful changes at the individual level, in consideration of context, non-linear progress that builds across time, and cyclical symptom relations. Examples of statistical approaches used for process-based research include ecological momentary assessment (EMA), complex network analysis, time-series analysis, and examination of critical slowing down and tipping points that can shift symptom trajectory (for review, see Barthel, Hofmann and Hayes, in press). Frequent, broader, and more contextually focused assessment, set up the stage for the creation of comprehensive, functional analytic working model with each of our clients.

The idiographic assessment and the functional network model analysis form the first stages of PB-CBT, and set the stage for implementing evidence-based interventions to target the identified problems dimensions. However, in PB-CBT case formulation continues as long as treatment is still ongoing. Following an intervention, the client's experiences are discussed. Receiving the client's feedback on the intervention is essential in order to decide whether to adapt or change the intervention and conduct it again (e.g., if something went wrong, was misunderstood, was not properly planned), whether to choose a different intervention for the same target, or whether to move on to a different context, or therapeutic target. Thus, eliciting feedback provides essential information that can inform the next cycle beginning with idiographic assessment (i.e., the second cycle of idiographic assessment will include information about the client's experiences and processing of the first intervention). Case formulation in PB-CBT is a progressive process that goes on throughout the

entire treatment and hopefully, will continue to evolve in the client's mind, enhance self-knowledge and self-efficacy long after treatment is over.

It is inevitable that assessments and case formulations will become more complex in order to match the complexity of each individual. However, we now have the theoretical models supported with methodological tools and expertise (data collection, network analysis and more) to offer clients with a complex, evidence guided, dynamic individualized assessment and treatments. As the editors and authors of chapter "Case Formulation in Process-Based Therapies" rightfully noticed, the interventions used in PB-CBT and the arguments in which its theory supports are not novel. However, as we briefly reviewed in this Commentary—asking individualized, context related questions through the idiographic assessment, using advanced tools for data collection and analysis, organizing the data in a comprehensive working model (such as the EEMM), and working in a cyclic manner throughout the therapeutic process, are indeed a new way in which case formulation and evidence-based clinical practice can now be delivered to our clients.

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