

The Formulation of the Clinical Case in Cognitive Behavioral Therapy (CBT): A Procedural Model

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ABSTRACT

Conceptualization and Formulation are terms often used interchangeably, but the authors prefer to differentiate between them in an attempt to better clarify their defining characteristics: conceptualization is the process of understanding and interpreting the patient's problems through the integration of assessment data, while formulation is a subsequent and more focused phase that applies a theoretical model to describe the problems, their causes, and maintaining factors in order to effectively guide therapy. In other words, case formulation is the result of the conceptualization process in which the clinician considers the life experiences that lead the patient to think and behave in a certain way, and combines this information into a coherent story.

In summary, conceptualization provides basic understanding, while formulation uses this understanding to create a specific model that guides therapeutic intervention.

Keywords

Cognitive Behavioural Therapy (CBT), Conceptualisation, Formulation, Procedural Model.

Introduction

Clinical behavioural psychology initially focused primarily on modifying the external environment, paying attention to observable behaviours and neglecting less accessible private events (e.g., thoughts and feelings). The latter, being difficult to understand, were considered by clinicians to be almost useless, rejecting any functional relationship between cognitions, emotions, and behaviour or even denying their existence. But can thoughts and emotions influence people's behaviour? That is, can an individual's behaviour be determined by the way they interpret (or construct) reality, including through automatic negative thoughts and dysfunctional beliefs that influence emotions and behaviours? The answer to these questions is “Yes,” but there has been no experimental evidence of how thoughts should be modified to induce behavioural change, nor of how thoughts control behaviour.

We await experimental research, through more refined analyses, within Functional Contextualism [1], Relational Frame Theory [2] and Acceptance and Commitment Therapy [3], to connect

‘private events’ with ‘public events’ (e.g., language, cognition, and behavior) and, at the same time, develop increasingly effective behavioral interventions, attempts are being made to better understand the role of “conceptualization” and “formulation” of the clinical case in Cognitive Behavioral Therapy (CBT) [4].

Conceptualization and Formulation are terms often used interchangeably, but the authors of this work prefer to differentiate between them in an attempt to better clarify their characteristics: conceptualization is the process of understanding and interpreting the patient's problems through the integration of assessment data, while formulation is a subsequent and more focused phase that applies a theoretical model to describe the problems, their causes, and maintaining factors in order to direct therapy effectively. In other words, case formulation is the result of the conceptualization process in which the clinician considers the life experiences that lead the patient to think and behave in a certain way, and combines this information into a coherent story.

In summary, conceptualization provides basic understanding, while formulation uses this understanding to create a specific model that guides therapeutic intervention.

Conceptualization of the Clinical Case

Case conceptualization is a procedural organization by the therapist of the experiential and learning modes and contents of a particular patient, taking into account predisposing, precipitating, and maintaining factors. Furthermore, it is an ever-evolving process that may extend beyond the initial sessions and is substantially different from the diagnostic process.

In fact, through the diagnostic process, the clinician collects information about the signs and symptoms presented by the patient, focusing on the question of “what” is troubling them. Therefore, the diagnosis seeks to identify the symptomatic characteristics that can converge the patient's condition into a known diagnostic label. This process, in addition to facilitating communication between clinicians, is essential for providing guidance on the most appropriate type of treatment and its prognosis.

But can the diagnostic process answer the questions: “How does that pathology manifest itself in the mental functioning of that specific person?” and “Why did it develop and stabilize in that person? The inability to answer these two questions precludes the possibility of articulating a targeted and effective intervention based on diagnosis alone, which is possible with the conceptualization and formulation of the case, which allows us to answer the ‘why’ and ‘how’ respectively [5].

Knowing the ‘why’ and ‘how’ of suffering can guide the therapeutic path towards using appropriate intervention strategies to ‘accept’ (cope with) dysfunctional thoughts that generate negative emotions, making the image of oneself and others more flexible, realistic, and, consequently, less painful.

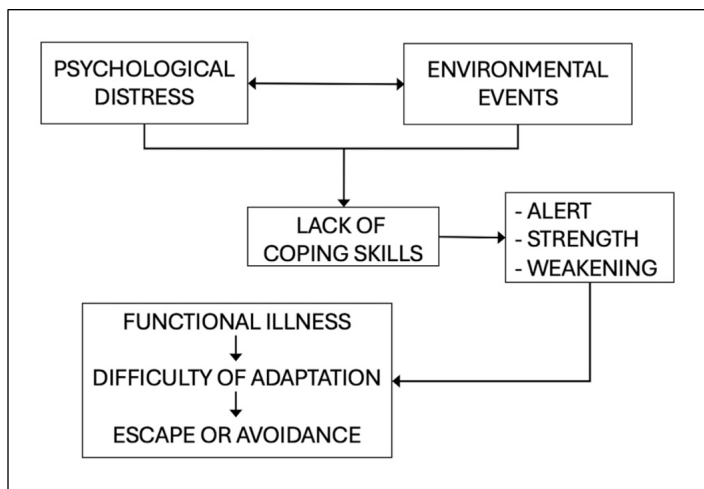


Figure 1: Diagram showing the activation of escape or avoidance behaviours: the patient experiences psychological distress (anxiety) caused or fuelled by environmental events (public speaking), but does not have adequate coping strategies, so they find themselves in a state of alarm (they may feel unwell) and try to resist using the tools they normally use in similar situations, but these do not work, causing them to become increasingly weakened, initially leading to functional discomfort (sweating, shortness of breath, etc.) with difficulty in adapting (they are completely preoccupied with dysfunctional thoughts) and then avoiding

the situation, deciding not to accept the invitation to speak in public.

This process allows for the conceptualization of the clinical case and for questions to be asked to understand the content and dynamics of the patient's problems, focusing on symptoms, thoughts, emotions, behaviors, and interactions with the environment, integrating anamnestic and evaluative data to arrive at an understanding of the underlying mechanisms (Figure 1). Questions can focus on the independent variables that regulate symptoms, interpersonal focus, the patient's beliefs, and general functioning (an example of questions, to which others can be added or modified entirely, is presented in Figure 2); or structured interviews can be used, such as the one in Figure 3, which focuses on medical aspects (the appearance of symptoms in relation to the patient's health and well-being), environmental aspects (the interactions of symptoms with the environment), and situational aspects (all events, factors, and circumstances that may influence a specific situation, determining the symptomatic response).

V	QUESTIONS
Problems	What kind of problem is it? (Quantitative and qualitative, and whether there is a disturbance).
	How frequent and intense are the symptoms? (For example, how many times a month does a panic attack occur?).
	What are the prevailing thoughts? (And what specific thoughts at certain times).
	What are the predominant emotions? (And how are they contained or expressed).
Beliefs	What is the focus of the problem? (For example, interpersonal, such as when the patient attributes responsibility for their feelings to another person).
	What variables regulate the symptoms? (What maintains or triggers the symptoms).
	What are the patient's beliefs? (The deep convictions and rules that guide their behaviour).
Context	How did these mechanisms develop? (The process of development of the patient's functioning over time).
	What is the patient's living situation? (Work, current and past family, friendships, hobbies).
	What are the patient's habits? (Daily habits, sleep, diet).
Thoughts	What are the elements of interaction with the environment? (For example, how they relate to others).
	Compared to what we discussed last time, has anything else come to mind? (To assess the patient's motivation and openness).
	At that moment (during the suffering), are there any thoughts? (To focus thoughts on a specific moment).
	How do you try to overcome difficult moments? (To investigate the use of coping strategies).

Figure 2: Examples of questions that can be asked during Conceptualisation. V = Variables.

Formulating the Clinical Case

Formulating the clinical case is a process that allows the psychotherapist to describe a patient's problems, identify the causes and factors that maintain them over time, and then design an effective therapeutic intervention. This procedure is an operational tool that connects all the subject's data, explains why the person has developed their difficulties, and provides predictions about their behaviour based on the triggering conditions [6].

This implies that not only reality must be correctly assessed, but also the ways in which cognitive processes and emotions are used to confirm and reinforce self-deprecating thoughts; For example, the patient emotionally perceives a problem that stimulates action (in a few days I have to speak in front of an audience), cognitively processes that they must plan complex behaviour (study the topic

they have to present and prepare slides), cognitively manage the adverse emotional signal (control anxiety) and evaluate it as appropriate (it gives me the push to face this new professional experience) [7-10].

But what happens if these processes turn into dysfunctional thoughts? The person may resort to thoughts such as: “I already know that when I look at the audience, I will start to freeze up when I speak, I will feel intense heat throughout my body and I may even faint; therefore, I cannot face this situation, I would make a terrible impression and what would others think of me and my professionalism”, which would inevitably lead to avoidance behaviour (“I will call the organisers and cancel the conference”) [11].

INTERVIEW		
Name:	Age:	Interviewer:
Date:		
Symptom(s):		
Instructions: interview the person presenting the symptom and answer the questions by placing an X on “Y” (YES) or “N” (NO) in the corresponding boxes. For each “YES” answer, write a qualifying comment in the line below the question or, if the answer is long, on a separate sheet, specifying the question number.		
Factors		A
Medical aspects	1. Did the symptom appear during a particular season? <i>If YES, which one?</i>	Y N
	2. Did the symptom occur during physical discomfort? (Headache, pain, heartburn, etc.) <i>If YES, which one?</i>	Y N
	3. Did the symptom appear in a state of deprivation? (Thirst, hunger, etc.) <i>If YES, which one?</i>	Y N
	4. Did the symptom appear after taking a drug? <i>If YES, which one?</i>	Y N
	5. Can the symptom be associated with an emotional condition? (Agitation, Anxiety, etc.) <i>If YES, which one?</i>	Y N
	6. Does the symptom occur if he sleeps little or poorly? (Fear, sleeping too little or too much, etc.) <i>If YES, which one?</i>	Y N
	7. Does the symptom occur more frequently during routines related to eating or diet? <i>If YES, which one?</i>	Y N
Environmental aspects	8. Does the symptom always occur in some circumstances? <i>If YES, when?</i>	Y N
	9. Does the symptom never occur in some circumstances? <i>If YES, when?</i>	Y N
	10. Is the symptom more noticeable at some time during the day? <i>If YES, when?</i>	Y N
	11. Does the symptom occur more frequently in the presence of certain people? <i>If YES, with whom?</i>	Y N
	12. Is the symptom more noticeable during periods of boredom? <i>If YES, which ones?</i>	Y N
	13. Is the symptom present in relation to some activities? <i>If YES, which ones?</i>	Y N
Situational aspects	14. Does the symptom appear in response to (or immediately after) aversive stimuli or frustrations? <i>If YES, which one?</i>	Y N
	15. Does the perception of the symptom vary depending on the context or situation? (Work, peer group, etc.) <i>If YES, which one?</i>	Y N
	16. Is the symptom an opportunity to complain to someone? (Seeking attention, consideration, etc.) <i>If YES, with whom?</i>	Y N
	17. Does the symptom provide an opportunity for social isolation? (Stimulus-poor environment, etc.) <i>If YES, when?</i>	Y N
	18. Is the symptom present alongside other behaviours, or is it part of a chain of symptoms? <i>If YES, which one?</i>	Y N
	19. Is the symptom experienced as atonement for guilt towards oneself or others? <i>If YES, to whom?</i>	Y N
	20. Is the symptom perceived more intensely when the subject is alone? <i>If YES, in what circumstances?</i>	Y N
	21. Is the symptom more pronounced if the subject experiences anxiety, fear or panic? (Motor agitation, etc.) <i>If YES, in what circumstances?</i>	Y N

Figure 3: Structured interview for conceptualising the case, focusing on medical, environmental and situational aspects. If the answer to the question is ‘Y’ (YES) and there is insufficient space, an additional sheet may be used, specifying the question number.

In this example, the anxiety disorder does not depend solely on an excessive assessment of the danger of “making a bad impression” in a certain situation (public speaking), but also from a fear of anxiety itself, perceived not as a useful adaptive warning signal

that prepares one to face dangers or challenges, but as a dangerous state in itself, becoming a discriminative stimulus that triggers avoidance behaviours in situations that could evoke it. From this point of view, anxiety should be considered as the main dysfunctional process, which leads to further and more debilitating withdrawal and isolation, and not as a possible pathological mechanism [12].

Just as the dysfunctional belief that one cannot regulate one's emotional state immediately leads to intervention on regulation, the opposite belief—that one must change dysfunctional thoughts—should lead to intervention on acceptance [13].

Knowing how to formulate a clinical case, therefore, is peculiar to the work of the psychotherapist and is part of their basic skills, since only a good formulation of the case allows for the planning of a strategically oriented treatment, i.e., one that is not made up of random interventions or trial and error. It follows that a well-formulated case contributes to the effectiveness of the treatment and supports the therapist throughout all phases of therapy. Based on these guidelines, an adequate case formulation should include the following elements [14-17]:

Case Presentation

Personal and family details (gender, age, level of education, etc.), current living conditions (employment status, marital status, etc.), referral and context of therapy (independent decision or referral by others to begin therapy, following a need or discomfort and creation of a safe, welcoming and non-judgmental environment created by the therapist), psychological examination of the patient during the first session.

Description of the Problem in terms of its qualitative aspects (symptoms) and quantitative aspects (frequency and intensity of the disorder), and any interactions between them. Describe the symptoms, using the DSM-5 or ICD-10 as a reference for diagnosis, in order to classify the disorder and administer specific tests (e.g. Minnesota Multiphasic Personality Inventory, Cognitive Behavioural Assessment, Millon Clinical Multiaxial Inventory, etc.) in addition to the patient's “life history” (collection of information on symptoms, their onset and experience of any previous psychotherapeutic and pharmacological treatments, family history and social, emotional and personal aspects) and data collected from the conceptualisation of the case (Figure 2 and Figure 3).

Internal Profile of the Disorder

The internal profile of the disorder in the case formulation refers to an in-depth description of the dysfunctional beliefs, assumptions and rules that a patient has about themselves, others and the world, often learned in childhood, and the coping strategies they have adopted and whether or not these have worked (Figure 4). This profile, central to cognitive-behavioural therapy, helps to understand the causes and maintenance of the patient's problems, allowing the formulation of a psychotherapeutic intervention plan aimed at modifying dysfunctional thoughts and behaviours (Figure 5).

In summary, the internal profile of the disorder is a reconstruction that describes the patient's subjective psychological process, consisting of identifying the thoughts, emotions, and behaviours that influence each other, tracing them back to critical events and core beliefs. This pattern is shared with the patient to identify dysfunctional patterns and plan a therapeutic intervention aimed at replacing them with more functional patterns.

Maintenance factors and Processes

Maintenance factors refer to all the processes or mechanisms (intrapsychic or interpersonal) that contribute to the ongoing perpetuation of symptoms over time. They can be internal individual psychological variables (e.g., beliefs) related to symptoms (described in the internal profile), or external (avoidance of situations that cause anxiety, receiving attention or help for the problem presented, unsatisfactory interpersonal relationships that affect the patient's condition, use of substances that could have effects on symptoms), which prevent the modification of symptoms (internal variable).

Decompensation

Decompensation refers to a triggering factor (an event, situation or series of events) which, acting on a person with certain vulnerabilities, leads to the onset or worsening of a psychological disorder. In summary, the concept of decompensation is crucial in therapy because it allows these factors to be identified, their origin and evolution to be understood, and the way in which they interact with the person's dysfunctional beliefs to be understood, enabling the therapist to design an intervention aimed at breaking the cycles of maintenance and promoting lasting well-being.

But what could have happened in the patient's life to alter or aggravate their psychological functioning? An answer to this question could be given by implementing the 4 "P" model, i.e., by analysing: *Predisposing Factors*: these are conditions or causes that make a person more vulnerable to developing a problem or disorder (e.g., history of childhood trauma, chronic health conditions or emotional instability, etc.); *Precipitating Factors*: these are the immediate events or circumstances that can trigger the onset of a disorder in a person who is already predisposed (e.g., stressful events, bereavement, loss of a job, break-up of a relationship, abuse, etc.); *Perpetuating factors*: these are factors that, once the disorder has manifested itself, contribute to maintaining it over time (e.g., dysfunctional behaviours, negative beliefs, fear of the problem, etc.); *Protective factors*: these are elements that counteract risk and promote good adaptation, resilience and mental health (e.g., adequate interpersonal relationships, effective coping skills, stable self-esteem, etc.) (Figure 6) [22].

It is the 4 Ps together that create and maintain the problem: that is, predisposing factors increase the likelihood of developing a particular disorder, triggering factors cause its onset, protective factors reduce the likelihood of developing a clinical condition, and perpetuating factors maintain or worsen the symptomatic situation [23].

By understanding these four components of the 4 Ps model, therapists can analyse the complexity of a problem and formulate a personalised intervention plan that addresses the root causes, enhances protective factors, and modifies perpetuating factors.

Vulnerability

Vulnerability is an individual's predisposition to be negatively affected by events or situations, influenced by cognitive, emotional, and biological factors. This condition is characterised by dysfunctional thought patterns and beliefs, a subjective perception of threat in difficult situations and marked emotional intensity. This may originate from childhood experiences that have sensitised the patient to certain issues, contributing to the development of dysfunctional beliefs; or from conditions that are part of the patient's current life, exposing them to continuous stress that can have a lasting and sometimes exaggerated effect on their symptoms, regardless of their actions.

F	THE 4 ELEMENTS OF THE BIOPSYCHOSOCIAL MODEL		
	BIOLOGICAL	PSYCHOLOGICAL	SOCIAL
Predisposing factors	<ul style="list-style-type: none"> - What was their temperament at birth? - What is known about their personality traits? - Is there a history of psychiatric disorders in the family? - Was there exposure to toxic substances in utero, complications at birth, or developmental disorders? - Is there a history of head trauma? - History of neurological development 	<ul style="list-style-type: none"> - What is their attachment style? - How did their family behave and what is the family structure? - Do they have problems with emotional modulation? - Do they have a rigid or negative cognitive style? - Low self-esteem and self-image? 	<ul style="list-style-type: none"> - Poverty, low socio-economic status, teenage parenthood? - Exposure during childhood to maternal depression, domestic violence, late adoption, or marital conflict? - History of marginalisation or discrimination. - Exposure to antisocial personalities or traits.
Precipitating factors	<ul style="list-style-type: none"> - Serious illness or injury? - Increased alcohol or drug use? - Failure to take medication? - Pregnancy or hormonal changes? - Sleep deprivation? 	<ul style="list-style-type: none"> - Stress factor that triggers one or more psychological processes: - Cognitive: core beliefs and cognitive distortions - Emotions: emotional dysregulation and dysfunctions - Interpersonal: grief, loss, disagreement, change and transitions 	<ul style="list-style-type: none"> - Loss or separation from close family members, partners, or friends - Interpersonal trauma - Work, academic, or financial stressors - Loss of a good or service - The individual's current experiences and symptoms are like a past situation.
Perpetuating factors	<ul style="list-style-type: none"> - Do they suffer from chronic illnesses, functional deficits caused by cognitive deficits or SLDs? - Failure to optimise medication (suboptimal dosages) - Lack of treatment or follow-up for mental illness? - Current use of narcotics? - Chronic medical problems, chronic pain or disability? - What is the current severity of symptoms? 	<ul style="list-style-type: none"> - One or more psychological processes that perpetuate themselves: - Cognitive: chronic negative thoughts and an environment that reinforces them - Emotions: seeking help and rejecting help, chronic emotional dysregulation and low stress tolerance - What are their beliefs about themselves, others, the world? - Are there self-destructive coping mechanisms or traumatic re-experiences? - Poor coping skills? - Unclear personality traits 	<ul style="list-style-type: none"> - Chronic marital/relationship discord, lack of empathy from family/friends, inappropriate expectations regarding development - Dysfunctional relationships, conflicts with others - Chronically dangerous or hostile neighbourhood, lack of adequate services - Continuous transitions and stressors - Precarious financial situation or long working hours - Isolation, unsafe environment
Protective factors	<ul style="list-style-type: none"> - Good general health - No history of mental illness in the family - How do they respond to medication (good response/no response, have they achieved remission, are they optimised with their current medication)? - Do they have above-average intelligence, an easy-going temperament, resilience, specific talents or abilities? - Not using substances is a protective factor 	<ul style="list-style-type: none"> - Are they able to reflect on or modulate their feelings? - Are they able to mentalise (see other people's points of view)? - Do they have a positive self-image or effective coping mechanisms? - Are they psychologically oriented, reflective and able to change their mental patterns? - Have they responded well to therapy in the past? - Good coping skills, good intuition? 	<ul style="list-style-type: none"> - Positive relationships? - Religious/spiritual beliefs - Good interpersonal support - Financial/disability support - Do you have an outpatient healthcare team (general practitioner, psychiatrist, social worker or case manager)?

Figure 6: Illustration of the four factors (Predisposing, Precipitating, Perpetuating and Protective) to understand a patient's condition, define their clinical picture and plan effective intervention, integrating biological, psychological and social aspects (Modified from: Weerasekera [24] and Winters, Hanson & Stoyanova [25]). F=Factors.

Therapeutic Intervention

The formulation of the case, therefore, serves to understand the patient's specific problems in depth, identifying the underlying causes and factors that maintain these issues. This theoretical

procedure serves to design targeted and personalised therapeutic interventions that are specific to the needs of the individual patient and the problems they present (anxiety disorders, depression, obsessive-compulsive disorder, phobias, etc.). This involves a careful and thorough understanding of the patient and their problems, identifying the underlying causes and factors that perpetuate these problems [26].

Furthermore, formulation serves to design targeted and personalised psychotherapeutic interventions which, through (1) sharing the choice of variables (direct cause of the disorder) to be modified from among those available, leads to the development of a (2) treatment plan (focused on changing negative beliefs and dysfunctional behavioural patterns) and (3) implementing a targeted intervention (using techniques and strategies of exposure, relaxation, diaphragmatic breathing, acceptance, defusion, etc.) to help the patient develop new coping skills and change perspectives and behaviours; Finally, treatment focuses on providing the patient with (4) tools (goals) to manage anxiety and other dysfunctional behaviours, promoting greater flexibility and self-awareness (Figure 7).

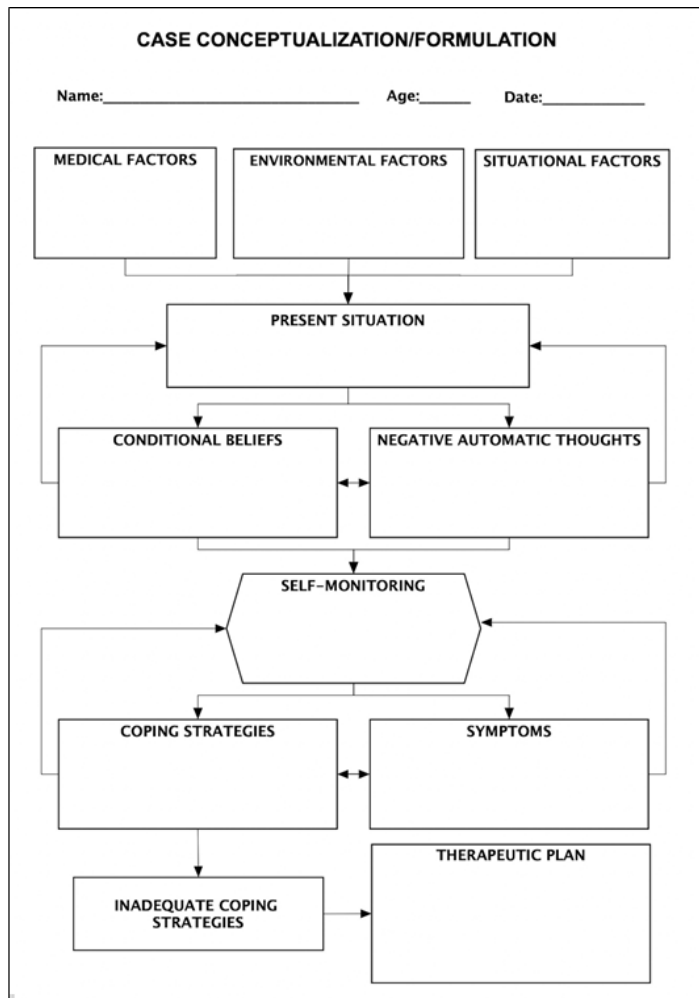


Figure 7: Summary of the construction of a clinical case in which, after the initial conceptualisation phase with the assessment of medical, environmental and situational factors (Figure 3), the current situation

is analysed considering both conditional beliefs (rigid and anxiety-provoking certainties, expressed with the formula “If ... then”, which generate anxiety and fear; for example, “If I freeze up, everyone will notice my anxiety”, for those who are afraid of public speaking) and automatic negative thoughts (judgements or interpretations that the person produces spontaneously, often in response to stressful situations or difficult emotions). In the formulation of the case, self-monitoring (the patient writes down behaviours, symptoms, experiences and thoughts in a diary, also using the ABC, to be shared with the therapist), the coping strategies that the patient tries to put into practice (Figure 4), and the description of the symptoms are also very important. The inadequacy of coping strategies leads the therapist to decide, together with the patient, on a shared, targeted and effective treatment plan.

DISTINGUISHING FEATURES		
	CONCEPTUALISATION	FORMULATION
Necessary conditions	Aim Understanding the patient, integrating assessment data to define their psychological functioning and characteristics.	Define the patient's problems and the factors that maintain them in a more specific and concrete way, translating this understanding into a treatment plan.
	Focus Deep understanding of the person and their problems through the integration of assessment data and reconstruction of the causes and development of their suffering.	Identification of causes and factors contributing to the persistence of the condition, and development of an effective treatment plan.
	Process A general and integrated understanding of the patient and their current suffering.	A document or model that outlines problems, causes and maintaining factors, aimed at guiding the design of psychotherapeutic interventions.
Key components	Identification of maintenance factors All factors (cognitive, behavioural, emotional, and situational) that contribute to maintaining the psychological problem over time are identified.	Description of the problem The patient's problems are described, considering quantitative aspects (e.g. frequency, intensity) and qualitative aspects, with the aim of providing a diagnosis according to the DSM 5 criteria.
	Predisposing factors The characteristics that made the individual more vulnerable to developing the specific psychopathology are analysed.	Predisposing and maintaining factors Identify vulnerabilities and historical factors that predispose individuals to the disorder, as well as present and future factors that maintain or exacerbate it.
	Trigger factors The events or situations that triggered the onset of the problem are identified.	Processes and dynamics We analyse the intrapsychic and interpersonal dynamics that maintain the symptoms and hinder the spontaneous resolution of the problem.
	Explanation of suffering Conceptualisation offers an explanatory model of suffering, showing the patient how their thought and behaviour patterns have developed and how they are linked to their current distress.	Context of the imbalance Describe what happened in the patient's life that caused the crisis and the deterioration of their psychological functioning.
Functions	Guide therapy It serves as a guide for planning interventions, defining therapeutic objectives.	Therapeutic guide Provides a framework for developing a targeted treatment plan.
	Provide a rationale It explains the logic behind the proposed treatment strategies to the patient.	Communication and sharing Enables clear communication between professionals and can be shared with the patient to promote the therapeutic alliance.
	Monitor progress It allows the effectiveness of the treatment to be assessed and any necessary changes to be made.	Therapy effectiveness Good case formulation is associated with better outcomes and stability of therapeutic change.
	Monitor progress It allows the effectiveness of the treatment to be assessed and any necessary changes to be made.	
		Purpose

Figure 8: Distinctive features between conceptualization and formulation.

Conclusions

Conceptualisation, which is a preliminary phase, provides a knowledge base for formulation, which is oriented towards the articulation of a personalised treatment plan (Figure 8). For example, in cognitive-behavioural therapy, conceptualisation might include identifying the patient's core negative beliefs, while case formulation would describe how these beliefs, together with intermediate rules and automatic thoughts, contribute to their current psychological problems.

Moreover, the relationship between case formulation and quality of clinical practice has been considered the cornerstone of evidence-based therapy by numerous experimental studies [27-30].

References

1. Hayes SC, Hayes LJ, Reese HW. Finding the philosophical core: A review of Stephen C. Pepper's World Hypotheses. *Journal of the Experimental Analysis of Behavior*. 1988; 50: 97-111.
2. Hayes SC, Barnes-Holmes D, Roche B. (Eds.). *Relational Frame Theory: A post-Skinnerian account of human language and cognition*. New York: Kluwer. 2001.
3. Hayes SC, Strosahl KD, Wilson KG. *Acceptance and commitment therapy: An experiential approach to behavior change*. New York: Guilford Press. 1999.
4. Haynes SN, O'Brien WH. *Principles and practice of behavioural assessment*. New York: Plenum. 2000.
5. Gilboa-Schechtman E. Case Conceptualization in Clinical Practice and Training. *Clin Psychol Eur*. 2024; 26; e12103.
6. Meyer V, Turkat ID. Behavioral analysis of clinical cases. *Journal of Behavioral Assessment*. 1979; 1: 259-270.
7. Eells TD. Review of the case formulation approach to cognitive-behavior therapy. *Psychotherapy: Theory, Research, Practice, Training*. 2009; 46: 400-401.
8. Eells TD. The case formulation approach to psychotherapy research revisited. *Pragmatic Case Studies in Psychotherapy*. 2013; 9: 426-447.
9. Eells TD. *Handbook of psychotherapy case formulation*. New York: Guilford Press. 2022a.
10. Eells TD. History and current status of psychotherapy case formulation. In Eells TD (Ed.). *Handbook of psychotherapy case formulation*. New York: Guilford Press. 2022b; 1-35.
11. Dawson D, Moghaddam N. *Formulation in Action: Applying Psychological Theory to Clinical Practice*. Berlino: De Gruyter. 2015.
12. Dudley R, Kuyken W. Case formulation in cognitive behavioural therapy: a principle-driven approach. In L. Johnstone & Dallos R (Eds.). *Formulation in Psychology and Psychotherapy*. New York: Routledge. 2014; 18-44.
13. Guazzo GM, Nappo C. Emotions and emotional dysregulation in autism spectrum disorder: a preliminary study. *Int J Psychiatr Res*. 2025; 8: 1-7.
14. Sperry J, Sperry L. Case conceptualization: Key to highly effective counseling, American Counseling Association. 2020. <https://www.counseling.org/publications/counseling-today-magazine/article-archive/article/legacy/case-conceptualization-key-to-highly-effective-counseling>
15. Eells TD, Kendjelic EM, Lucas CP. What's in a case formulation? Development and use of a content coding manual. *The Journal of psychotherapy practice and research*. 1998; 7: 144-153.
16. Mancini F, Perdighe C. Case Formulation: A Framework for Clinical Case Presentation and Supervision. *Psychotherapists in Training, Special Issue*. 2009.
17. Kendjelic EM, Eells TD. Generic psychotherapy case formulation training improves formulation quality. *Psychotherapy: Theory, Research, Practice, Training*. 2007; 44: 66-77.
18. Ellis A. *Reason and emotion in psychotherapy*. New York: Lyle Stuart. 1962.
19. Beck AT. *(Cognitive therapy and the emotional disorders*. Madison, CT: International Universities Press. 1976.
20. Törneke N. *Using functional analysis in psychotherapy*. New York: Guilford Press. 2025.
21. Hayes SC, Smith S. *Get out of your mind and into your life*. Oakland, CA: New Harbinger Publications. 2005.
22. Bolton JW. Case formulation after Engel—The 4P model: A philosophical case conference. *Philosophy, Psychiatry & Psychology*. 2014; 21: 179-189.
23. Owen G. What is formulation in psychiatry? *Psychol Med*. 2023; 53: 1700-1707.
24. Weerasekera P. Formulation: a multiperspective model. *Can J Psychiatry*. 1993; 38: 351- 358.
25. inters NC, Hanson G, Stoyanova V. The case formulation in child and adolescent psychiatry. *Child Adolesc Psychiatr Clin N Am*. 2007; 16: 111-132.
26. Macneil CA, Hasty MK, Conus P, et al. Is diagnosis enough to guide interventions in mental health? Using case formulation in clinical practice. *BMC Med*. 2012; 10: 111.
27. Silberschatz G, Fretter PB, Curtis JT. How do interpretations influence the process of psychotherapy? *J Consul Clin Psychol*. 1986; 54: 646-652.
28. Persons JB. *The Case Formulation Approach to Cognitive-behavior Therapy*. New York: Guilford Press. 2008.
29. Jacobson NS, Schmalig KB, Holtzworth-Munroe A, et al. Research-structured vs clinically flexible versions of social learning-based marital therapy. *Behav Res Ther*. 1989; 27: 173-180.
30. Kuyken W, Fothergill CD, Musa M, et al. The reliability and quality of cognitive case formulation. *Behav Res Ther*. 2005; 43: 1187-1201.