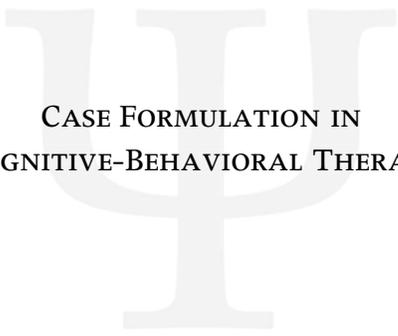


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## CASE FORMULATION IN COGNITIVE-BEHAVIORAL THERAPY

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### WHAT IS CASE FORMULATION?

A set of hypotheses regarding what variables serve as causes, triggers, or maintaining factors for a person's problems

Description of symptoms and means of organizing an understanding of how those symptoms can be alleviated

An idiographic theory based on a nomothetic theory

A "patient story" Persons & Davidson (1999); Eels (1997)

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## RATIONALE

**CBT formulation improves CBT practice by:**

- Linking theory, research and practice
- Normalising problems and increasing empathy
- Organising large amounts of complex information
- Enabling high quality supervision

**CBT formulation informs intervention by:**

- Selecting, focussing and sequencing interventions
- Suggesting a person's preferred way of changing
- Suggesting likely 'therapy-interfering behaviours'
- Enabling the simplest and most cost-efficient interventions

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### GENERAL GUIDELINES

Keep your formulation as simple as possible

Keep an open mind, both before, during, and after your formulation process

- Allow your conceptualization to change based on new data or disconfirmed hypotheses

Don't confuse case formulation with *treatment planning* or *diagnosis*

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### DIFFERING VIEWS

A number of CBT clinicians have extensively written about case formulation and/or conceptualization

We will review models by Arthur M. Nezu and Jacqueline B. Persons

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### NEZU'S CASE FORMULATION

Goals are to:

1. Obtain a detailed understanding of the patient's presenting problems
2. Identify those variables that are functionally related to such difficulties
3. Delineate treatment targets, goals, and objectives

Nezu et al. (2004)  
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### ULTIMATE VS. INSTRUMENTAL

Ultimate outcome goals are more general and reflect why therapy is undertaken  
E.g., relieving depression or decreasing anxiety

Instrumental outcome goals are changes that serve as instruments to achieve other goals  
E.g., increasing self-esteem or improving coping skills (both of which might in turn relieve depression)

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### ULTIMATE VS. INSTRUMENTAL

Instrumental outcomes are the therapist's hypotheses about variables that are thought to be related to ultimate outcomes

Instrumental are *independent variables* (what the therapist will change), ultimate are *dependent variables* (which change as a result of instrumental outcomes)

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### PROBLEM-SOLVING MODEL

The PSM of case formulation involves

1. Problem orientation
2. Defining problems
3. Generating alternatives
4. Decision making
5. Evaluating solution outcomes

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### PROBLEM ORIENTATION

Behavior can be multiply caused

- Different paths can end in the same symptoms
- Different methods can end in symptom reduction
- Variable can contribute to psychopathology in either *proximal* or *distal* ways

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### PROBLEM ORIENTATION

Behavior occurs within various systems

- Instrumental and ultimate outcome variables relate to each other in multiple ways
- We must assess how these variables interact to gain a picture of a person's unique network
- This allows for targeting of multiple variables simultaneously, increasing likelihood of change

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### DEFINING PROBLEMS

In general, this step involves

Gathering information  
Separating facts from assumptions  
Identifying factors that contribute to problem

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### DEFINING PROBLEMS

First step is identifying ultimate outcomes

- Assess patient's functioning
- Delineate goals from patient ("I'm feeling sad and want to get better") and/or therapist (treat major depression)

Next you identify instrumental outcomes

- Attempt to review a *range* of empirically supported outcome variables for a problem
- Don't rely on just one treatment model

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### DEFINING PROBLEMS

To ID instrumental outcomes, you can use theory-driven strategy (e.g. causes of anger) or diagnosis-driven strategy (e.g., GAD)

Literature linking instrumental and ultimate outcomes guide search for meaningful targets

Determine the idiographic applicability to individual patients

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### DEFINING PROBLEMS

To conduct a multidimensional assessment framework, the clinician must consider

- Client-related variables
- Environment-related variables
- Temporal dimensions
- Functional dimensions

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### DEFINING PROBLEMS

Client-related variables are all factors related to the client, including

- Behavioral deficits or excesses
- Problematic affect / emotions / mood states
- Cognitive deficiencies and distortions
- Biological variables
- Socio / ethnic / cultural variables

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### DEFINING PROBLEMS

Environment-related variables can be either

- Physical (e.g., housing, living conditions)
- Social (relationships with people)

Temporal factors involve both current *and* past functioning and symptoms, as well as potential distal and proximal causal factors

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### DEFINING PROBLEMS

Functional dimensions refer to the function of each of the previous variables with respect to the ultimate outcome(s)

- Stimulus (intrapersonal or environmental antecedents)
- Organismic variable (client-related variables)
- Response (what client does in response to stimulus)
- Consequence (effects engendered by the response)

Goldfried & Spafkin (1974)

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### DEFINING PROBLEMS

SORC labeling allows one to identify potential target problems and suggests interventions at different levels

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    graph LR
      S[Work stress] --> O[Coping ability]
      O --> R[Depressive affect]
      R --> C[Decreased positive interactions]
      I[Possible levels of intervention] --> S
      I --> O
      I --> R
      I --> C
  
```

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### GENERATING ALTERNATIVES

The goal here is to generate a large number of possible target problems to increase chance that the most effective one will be identified

Use brainstorming method of idea production

- Quantity principle
- Deferment of judgment principle
- Strategies-tactics principle

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### DECISION MAKING

The clinician now selects specific instrumental goals for a client from the list made during "Generating Alternatives"

Make decisions about goals based on utility

- The likelihood that an alternative will achieve a particular goal
- The value of that alternative

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### DECISION MAKING

Estimates of likelihood tell you the probability

- That an alternative will facilitate goal attainment
- That the person will be able to do so optimally

Find this by asking the probability that

- This alternative will help this client with a goal
- The target problem is amenable to treatment
- The therapist is able to treat this problem
- The treatment is available

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### DECISION MAKING

The value of an idea is estimated by assessing

1 - Personal consequences

- Time / effort / resources needed to reach the instrumental outcome
- Emotional cost / gain involved in reaching it
- Consistency of this outcome with one's ethics
- Physical or life-threatening effects involved in changing the target
- Effects changing this problem will have on other problems

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### DECISION MAKING

2 - Social consequences, the impact on

- Significant others
- Family members
- Friends
- Community (if relevant)

3 - Short-term effects on other problem areas

4 - Long-term effects on future functioning

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## DECISION MAKING

In essence you want to choose instrumental outcomes that have a high chance of

**Maximizing positive effects**  
and  
**Minimizing negative effects**

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## EVALUATING SOLUTION OUTCOMES

During this step, clinicians do the following:

- Implement the solution response
- Monitor the outcome of this solution
- Evaluate the match between predicted and actual consequences

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## EVALUATING SOLUTION OUTCOMES

Development of a Clinical Pathogenesis Map allows the clinician to chart out the SORC functional relationships and design a treatment plan

Consists of distal, antecedent, organismic, and response variables, as well as consequences

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### EVALUATING SOLUTION OUTCOMES

Distal variables are developmental or historical factors that cause vulnerabilities  
Trauma, early learning experiences, stressful life events, etc.

Antecedent variables are any of the client- or environmental-related variables that serve as triggers or stimuli for instrumental outcomes or symptoms  
Social isolation, being rejected or teased

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### EVALUATING SOLUTION OUTCOMES

Organismic variables are client-related variables that represent response

Mediators (explain why a response occurs in the presence of certain antecedents)  
E.g., poor social skills, cognitive distortions, fear

Moderators (influence the strength/direction of relationship between antecedent and response)  
E.g, level of problem solving ability

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### EVALUATING SOLUTION OUTCOMES

Response variables refers to  
Client-related instrumental outcomes closely related to ultimate goals (e.g., suicidal ideation)  
Set of symptoms that constitute the ultimate goal (e.g., depression, pain)

Consequential variables are all client- and environment-related variables that occur in reaction to a response

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### EVALUATING SOLUTION OUTCOMES

Effectiveness of the CPM is determined via:

- Social validation
  - Sharing CPM with client and getting feedback
- Hypothesis testing
  - See if predictions based on CPM are accurate

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### PERSON'S CASE FORMULATION

Happens at three levels:

- Case** explains relationships among patient's problems, helps select treatment targets
  - Try to develop after 3-4 sessions
- Problem** provides a conceptualization of a clinical syndrome
- Situation** provides a "mini-formulation" of reactions to particular situations

Persons & Davidson (1999)  
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### FORMAT OF CASE FORMULATION

Five components to CBT case formulation

1. Problem list
2. Diagnosis
3. Working hypothesis
4. Strengths and assets
5. Treatment plan

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### PROBLEM LIST

An exhaustive list of all client difficulties stated in concrete terms, across domains of

- Psychological symptoms
- Interpersonal difficulties
- Occupational
- Medical
- Financial
- Housing
- Legal
- Leisure

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### PROBLEM LIST

Useful to search for causal relationships to develop a Working Hypothesis

Ensures important problems are not overlooked

Decrease feelings of being overwhelmed

Keep therapy on track and focused

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### DIAGNOSIS

Not absolutely critical, but it can lead to initial formulation hypotheses based on established theories

E.g., if criteria for panic disorder are met, consider Barlow's theories as a template (nomothetic) for the client (idiographic) formulation

Can also point to empirical interventions for potential use in therapy

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### WORKING HYPOTHESIS

The heart of case formulation; the adaptation of a nomothetic theory to the individual client  
E.g., tailoring Barkley's theories of ADHD to a particular child's situation

Also describes relationships among items on the Problem List

Includes schemata (organismic), precipitants (antecedents), origins (distal factors), and summary (CPM)

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### STRENGTHS AND ASSETS

Protective factors or factors that may make treatment more likely successful

Assists in developing Working Hypothesis, using strengths can enhance Treatment Plan, and setting realistic treatment goals

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### TREATMENT PLAN

Not part of case formulation, but stems from and is based on it, particularly the Problem List and Working Hypothesis

Comprised of:

- Goals
- Modality
- Frequency
- Interventions
- Adjunct Therapies
- Obstacles

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### TREATMENT PLAN

Goals can be seen as ways to solve items on the Problem List

Try to develop goals that both client and therapist can agree on

Include information on how progress will be measured for each goal

Self-report measures, idiographic measures, count of behaviors

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### TREATMENT PLAN

Based on other parts of formulation, therapist can make predictions about what obstacles may impede therapy

May include items on Problem List, or more distal variables

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### WHY HAVE A CASE FORMULATION?

Constructing a Problem List can clarify treatment Goals

Helps the therapist maintain clear focus while working on multiple problems

Helps the client play an active and collaborative role in treatment

Helps therapist understand and manage negative reactions to the client

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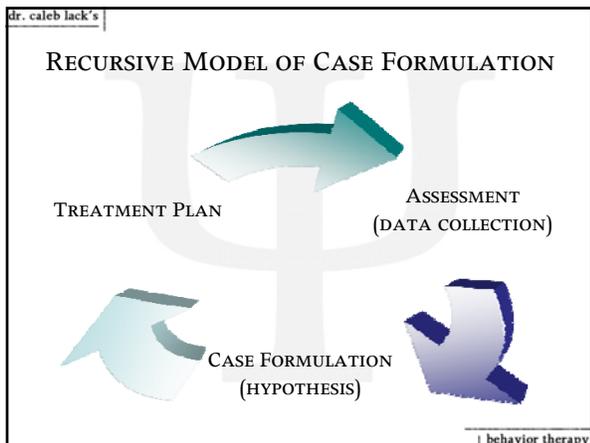
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- #### Evidence-based guidelines for generating 'good enough' CBT formulations
1. Generate provisional formulations
  2. Hold alternative formulations in mind
  3. Provide adequate tests for formulations (e.g., behavioural experiments)
  4. Triangulate by testing out hypotheses with client, individuals in client's network, supervisor and standardised assessments
  5. Be sensitive to the impact of factors known to affect judgment (e.g., task complexity, practitioner competence and time pressures)
  6. Justify formulations through case notes and/or supervision
  7. Follow manualised approaches
  8. Follow contemporary practice guidelines
  9. Formulate using best available CBT theory and research
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- ### EVALUATE YOUR FORMULATION
- Top-down criterion**
- Is the theory on which the formulation is founded evidence-based?
- Bottom-up criteria**
- Is the formulation reliable?
    - Is the formulation based on reliable inferences?
    - Can clinicians agree on the formulation?
  - Is the formulation valid: Does it triangulate with the client's experience, any standardised measures, the therapist's clinical impressions and the clinical supervisor's impressions?
  - Does the formulation improve the intervention and the therapy outcomes?
  - Is the formulation acceptable and useful?
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# DISTINCTIVE ACTIVITIES OF CBT

Blagys & Hilsenroth (2002)  
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# WHAT MAKES CBT CBT?

Six distinctive activities separate CBT from psychodynamic or interpersonal therapy

1. Homework
2. Direction of session activity
3. Teaching of skills
4. Emphasis on future experiences
5. Information sharing
6. Cognitive focus

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# HOMEWORK

Provides an opportunity for client to practice and generalize skills learned in therapy

Equips a client with a way of coping outside of therapy, thereby maintaining progress

Master CBT therapists place more emphasis on between-session activities than novices

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### DIRECTION OF SESSION ACTIVITY

CBT therapists

- Set an agenda at the start of each session
- Use preplanned techniques at specific times
- Decide therapy content prior to session
- Actively direct the patient during session

A directive, but collaborative style of therapy

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### TEACHING SKILLS TO PATIENTS

Skills are taught so that a client will be able to cope more effectively, both now and in the future

CBT is a highly psychoeducational approach, focusing on giving client the means to be their own therapist in the future

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### EMPHASIS ON FUTURE EXPERIENCES

CBT focuses on the impact a person's thoughts / behaviors / emotions have on their current and future functioning

Emphasis is on learning new skills to improve quality of life in the future, not on how past experiences impact current life

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### INFORMATION SHARING

CBT therapists discuss treatment rationales and techniques with clients, as well as providing educational materials

Helps to orient client to therapy, increase hope for change, and increase problem solving ability outside of therapy

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### COGNITIVE FOCUS

CBT focuses on illogical or irrational cognitions, rather than "inner" impulses, conflicts, wishes, etc.

By challenging and evaluating these cognitions, client gains control over what was previously seen as immutable

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