A Case Formulation Approach to

Cognitive Behavioural Therapy

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ABSTRACT

Case Formulation (or Case Conceptualisation), defined by Persons (1989, p. 37) as '…a hypothesis about the nature of the psychological difficulty (or difficulties) underlying the problems on the patient's problem list', is central to all counselling and therapy. In Cognitive Behavioural Therapy (CBT) the case formulation is based on the Cognitive Model of emotional disorders, first developed in detail by Aaron T. Beck. At its simplest level it focuses on Negative Automatic Thoughts which are locked into vicious cycles with dysfunctional emotions, behaviours and somatic symptoms. It can also be expanded to include more ongoing dysfunctional underlying cognitions in the form of Assumptions and Core Beliefs. In practice, the case formulation guides and structures the course of treatment by unifying and prioritising symptoms, influencing the choice and timing of interventions, and predicting possible problems. The cognitive case formulation approach is open to disconfirmation, grounded in empirical research, parsimonious, and readily understandable by clients. However, it is also open to therapist bias, does not explicitly include cultural influences, can be over-accepting of the client's judgement as to its accuracy, and relies on controversial mediating psychological entities. It is nonetheless a powerful theoretical and therapeutic tool.

1. Case Formulation: General.

Case Formulation in counselling and psychotherapy could be seen as equivalent to the Assessment-plus-Diagnosis-plus-Treatment-Planning process of psychiatry and of medicine in general. It is made up of:

(a) a hypothesis, inductively arrived at (Weishaar, 1975, p. 75), concerning the etiology and maintenance of the client's presenting psychological problem(s)
(b) consistent with this, a plan as to when, where and how to intervene, with a view to bringing about some reduction in the troubling symptoms.

This process is not carried out explicitly in all forms of counselling/therapy. Rogers, indeed (1951, p. 223), considers that 'a diagnosis of the psychological dynamics is not only unnecessary but in some ways is detrimental or unwise.' He is concerned that the process of making a diagnosis leads to an inequality in the power dynamic between counsellor and client. While this is a genuine danger, surely all therapeutic intervention must be based on some hypothesising and planning of the type outlined above, even if it remains implicit. It may be that it is more dangerous if it does remain implicit. CBT's Collaborative approach to arriving at an explicit formulation (described below) is designed to avoid these difficulties.

2(a). Case Formulation in CBT - Basic level.

In CBT there is always a *cognitive* case formulation i.e. a hypothesis and plan based on the Cognitive Model of emotional disorders. Judith Beck (1995, p. 1) defines this as follows: 'In a nutshell, the *cognitive model* proposes that distorted or dysfunctional thinking (which influences the client's mood and behaviour) is common to all psychological disturbances.' (Italics in the original).One of the simplest forms of the cognitive model is Ellis's "ABC" model (Burns, 1989; Ellis, 1977; Trower et al., 1998). Trower et al. (1998, p. 3) summarise as follows: 'According to this model, an Activating event A leads to emotional and behavioural Consequences at C, with the emotional consequences being mediated by Beliefs at B'. In fact, most cognitive therapists would probably see behavioural and indeed somatic consequences as also being mediated by beliefs, or at least by cognitive factors of various kinds. The outline and discussion which follows focuses on the cognitive conceptualisation and terminology of Aaron T. Beck and therapists/researchers working in the tradition that has developed from his ideas.

Beck (1976, p. 33) describes his discovery of Automatic Thoughts which '…appeared to emerge automatically and extremely rapidly…*prior* to experiencing the emotions.' (Italics in the original). Such automatic thoughts, which clients are normally unaware of, but which they can be trained to become aware of, make sense of the troublesome feelings which immediately follow them. For example, a student who is feeling anxious about an imminent examination will be found to have such automatic thoughts as 'This exam is going to be too difficult for me' and 'I'm not well prepared for this'.

In its simplest form, a cognitive formulation describes vicious cycles linking distorted thoughts with emotions, behaviours and somatic symptoms (Fig 1a).

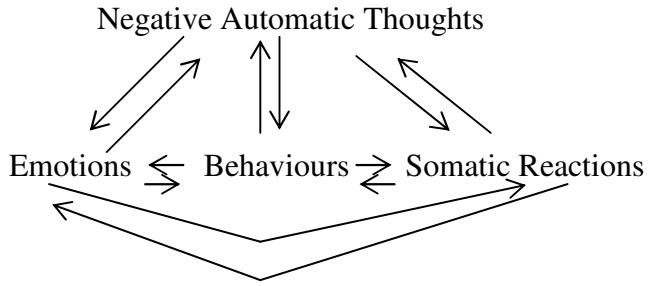

Figure 1a.

The first detailed practical description of how this could be done was given in Beck et al. (1979), and focused on working with the feelings, behaviours and cognitions that are typically symptomatic of depression e.g. low mood, lack of motivation, decreased activity, negative thinking. Beck et al. hypothesised that the last of these was the primary maintaining factor in unipolar depression (and also perhaps one of its proximate causes). If the client holds negative views of himself, the world and the future, it makes sense that he will feel low and will be reluctant to act. Lack of constructive action will further strengthen these negative cognitions, leading to the maintaining vicious cycle typical of the cognitive model. These cognitions also make a useful intervention point, as they can be monitored, critically examined, tested and eventually replaced with more adaptive views.

Though Beck does not use the term 'Case Formulation' in the above text, the notion is clearly present under the heading *Formulate and Test Concrete Hypotheses* (p. 78): 'It is critical to construct a model – blueprint – that fits the particular patient.'

Figure 1b applies fig. 1a to a depressed client.

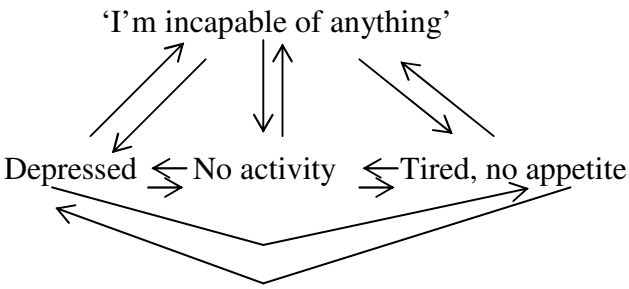

Figure 1b.

Negative thoughts lead to depressed feelings, lack of activity, and tiredness/loss of appetite, and are in turn reinforced by each of these symptoms. The symptoms on the bottom line also interact with each other in vicious cycles e.g. feelings of depression can lead to loss of appetite, while lack of proper nutrition is likely to leave the client more vulnerable to feelings of depression.

The formulation for depression outlined above can be considered an 'off the shelf' formulation (Wills and Sanders, 1997) for a particular disorder. Similar 'ready-to-use' formulations have since been developed for anxiety disorders and phobias (Beck et al., 1985), panic disorders and social phobia (Clark, 1997), anorexia and bulimia (Fairburn, 1997), obsessive compulsive disorder (Salkovskis and Kirk, 1989 & 1997), and other disorders. The advantage of such disorder-specific formulations is that the case formulation process doesn't always have to start from scratch, as clients' problems share many common elements. However, Beck et al, (1979, p. 29) emphasise that 'There is no standard format that can be applied systematically to all patients to obtain the crucial data and change the idiosyncratic patterns.'

2(b). Case Formulation in CBT - Deeper levels.

Persons (1989) suggests that a complete case formulation will explain how current problems are being precipitated (and how they actually make sense in the light of the hypothesised underlying beliefs and current triggers), and will also suggest origins of the underlying beliefs in the client's early life. Judith Beck (1995), Melanie Fennell (1989) and others have expanded this view of the cognitive formulation to include ongoing Core Beliefs and Assumptions from which spring the Automatic Thoughts specific to a given situation (see Figure 2, adapted from the above sources).

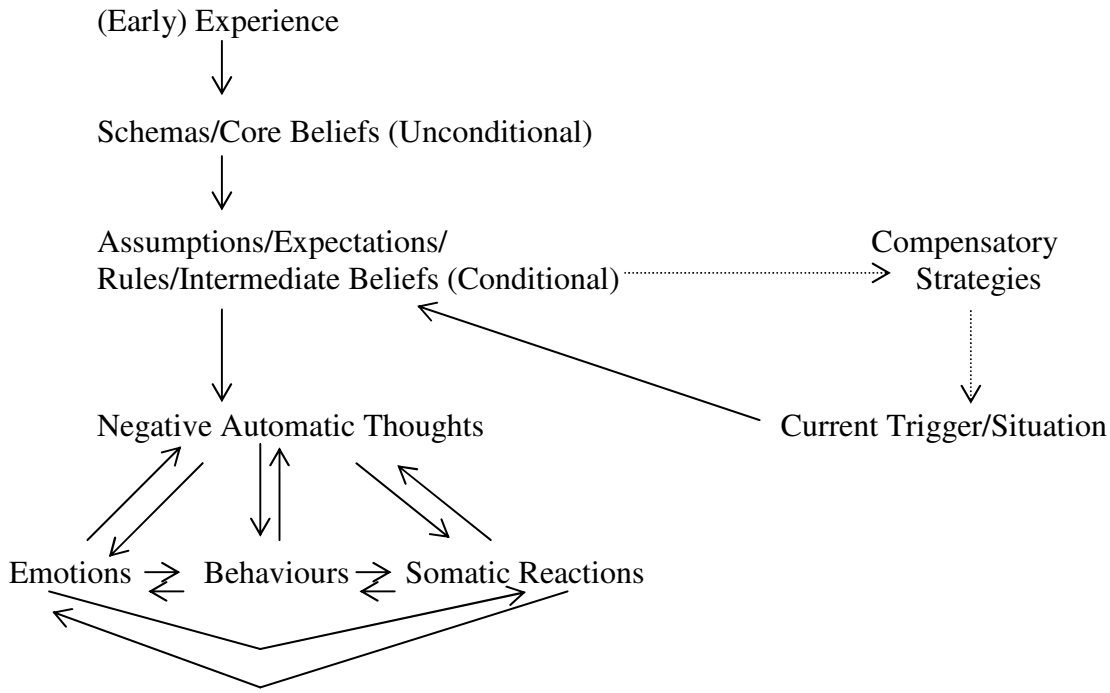

Figure 2.

A depressed client's negative automatic thoughts could arise out of assumptions such as 'If I try anything, I make a mess of it', triggered by some current situation which is seen as a failure. These assumptions could in turn arise out of a core belief such as 'I'm no good', rooted in the client's early (or later) experience of being treated as no good, or being told that he was no good. His assumptions could lead him to avoid tasks or to try too hard (compensatory strategies), either of which would be likely to increase the chance of failure, thus feeding back to reinforce the assumptions.

3. Case formulation in CBT practice.

In therapeutic practice, the principle value of the case formulation is to guide and structure the course of therapy in a variety of ways:

- It ties apparently disparate problems/symptoms together in a meaningful yet parsimonious way, "…defining apparently unrelated problems as part of one issue, or conceptualising a mass of issues into a smaller number of problems…" (Wills & Sanders, 1997). This saves CBT from one of the chief criticisms made by psychodynamic theorists; that it deals only with symptom reduction, having no underlying rationale (Persons et al., 1996). In fact, while the process of deriving a case formulation begins with a detailed and unstructured 'problem list' (Persons, 1989), it then proceeds to go beyond it by looking for common themes which could suggest one or a few underlying beliefs. Behaviours and automatic thoughts, even if they are not classified as problems, can also be explored with a view to discovering such central underlying themes.
- It enables problems to be prioritised in a meaningful and useful way. 'The case formulation helps the therapist… to focus on problems and aspects of problems that are closely related to the patient's central difficulties.' (Persons 1989, p. 41).
- It suggests the most appropriate intervention point or focus for the treatment. For instance, a client who was concerned about his periodic angry outbursts wanted to learn to control his anger. However, collaborative exploration uncovered a strong underlying perfectionism. He had rigid assumptions about how things 'ought' to be, and how people around him 'should' behave. When things didn't go according to these expectations, he would feel angry. While teaching him self-control techniques would have been a possible approach, it seemed that it could have been counter-productive, as it could serve to further reinforce his dysfunctional assumptions (in this case: 'I should always be in control', 'I must never get angry'). Such a formulation suggested that working on his rigid expectations of himself, of others and of the world would be more helpful.
- It influences the choice of techniques and "homework". In one case of long-term moderate depression, for example, Scheduling Activities did not seem to be a useful approach in the early stages, even though it would normally have been indicated at that stage of the treatment. The reason for this is that it would have fed into the client's expectation of herself to achieve more than was appropriate each day given her difficulties. Instead, simple prioritising was used ('If I only get one thing done each day, then it will be A; if I get two things done, they will be A and B, etc').
- It can predict possible problems and suggest ways to handle them (Persons 1989; Wills and Sanders, 1997). For example, a client who feels they can never complete anything is likely to experience problems with homework, and this will need to be addressed directly, perhaps by carefully grading homework assignments.

- It can assist in understanding the dynamics of the therapeutic relationship (Persons 1989; Wills and Sanders, 1997). For instance, a client who has the assumption 'I must try to please everyone, or else I'm no good' is likely to be very compliant with the therapist, and may need specific encouragement to say what they really want and feel.
- It can make sense of 'extra-therapeutic' issues, and suggest how they could be approached (Persons 1989; Wills and Sanders, 1997). Frequent lateness for sessions, for example, would be addressed differently depending on whether it was a general pattern in the client's life, or a specific expression of anxiety regarding the sessions.
- It provides a map to guide the treatment in exploring deeper levels of the client's underlying dynamics when this is necessary, for example in working with personality disorders (Beck et al., 1990; Young, 1994), or to minimise the possibility of relapse in depression (Fennell, 1989).

Two other important points about cognitive case formulation have already been touched on earlier in this essay.

The first is that it is arrived at, and tested, in collaboration with the client. In practice, this means that the therapist both presents his own formulations to the client, as hypotheses for discussion, and also helps the client to formulate his own hypotheses through guided discovery (J. Beck, 1995). This means that the client has as full as possible an understanding of what is happening in their own treatment. As Persons remarks (1989, p. 48), 'If the formulation is so helpful to the therapist, we might also expect it to be helpful to the patient in understanding and managing his behaviour.'

The second is that it is always open to modification in the course of a treatment. This follows naturally from the epistemology of CBT, which is scientific (Beck, 1976; Beck et al., 1979; Kuhn, 1962; Popper, 1972). Openness to empirical disconfirmation and consequent modification, or even abandonment, of treatment hypotheses is central to this approach, not incidental.

Persons (1989) proposes five tests of a formulation:

1. Try to account for each problem/symptom in the light of the case formulation.
2. Try to account for current (including new) precipitants of problems.
3. Make predictions/retrodictions about how the client is likely to behave, feel, think, or have behaved, felt, thought, in specific circumstances.
4. Check whether the client feels that the formulation "fits" them.
5. Evaluate treatment success/failure; this may not always be due to the accuracy/inaccuracy of the formulation, but there is at least a strong possibility that it is.

4. Strengths and Weaknesses.

The above suggests one of the main strengths of cognitive case formulation, namely its openness to falsifiability, unlike some of the conceptualisations of, for example, the psychoanalytic approach. Magee describes Popper as recommending

> … that we formulate our theories in as clearcut a way as possible, so as to expose them most unambiguously to refutation. And at the methodological level we should not … systematically evade refutation by continually reformulating either our theory or our evidence in order to keep the two in accord. This is what many Marxists do, and many psychoanalysts. (1982, p. 43).

Persons sums up the cognitive position:

> The therapist can never be certain her hypothesis about the underlying mechanism is correct and must always be prepared to revise or change it in the face of evidence. This is a continuous process; in fact, assessment and treatment are a continuous process of proposing, testing, reevaluating, revising, rejecting, and creating new formulations. (1989, p. 55).

Another strength of cognitive case formulations (especially the 'off-the shelf' variety) is their grounding in empirical research evidence (see references above). Judith Beck (1995, p. 1) claims that cognitive therapy '… is unique in that it is a system of psychotherapy with a unified theory of personality and psychopathology supported by substantial empirical evidence.'

As already noted, cognitive case formulations also have the advantage of being parsimonious (Wills & Sanders, 1997). This is another example of scientific epistemology; ideally, in CBT, neither theoretical constructs nor technical interventions are multiplied beyond necessity. This saves CBT from being merely eclectic, enabling it to be the unified theory that Judith Beck claims it to be.

In practice, cognitive formulations are generally understandable, non-esoteric, easy to share with clients. However, this very feature is open to criticism for its possible over-simplification of complex psychological dynamics (Persons et al., 1996). In particular, it is questionable whether all of a client's problems/symptoms can be accounted for by a single formulation (as in Persons' 1st test – see above). Cognitive Behavioural therapists do not necessarily claim that this can always be done, but the temptation to be over-inclusive can be strong (Wills & Sanders, 1997).

Cognitive case formulations are, like any case formulations, open to being influenced by the biases and prejudices of the therapist, and to the danger of being imposed despite such flaws. 'We may develop a perfect, sophisticated and theoretically sound conceptualisation which has little empirical or practical value to the client, and, because of our own cognitive distortions, start to see everything in those terms (Wills & Sanders, 1997, p. 52). At the very least, there is the danger of imposing the cognitive model of change on the client; Owens (1998) argues for the need to create a

'fit' between the client's own (implicit) theory/model of change and the therapy approach being used.

The cognitive case formulation process can also be criticised for its acceptance at face value of the client's judgement as to the accuracy and 'fit' of the formulation (see Persons' 4th test, above). As Weishaar (1993, p. 108) points out, 'Critics from both the psychodynamic and cognitive science camps … accuse Cognitive Therapy of ignoring the role of unconscious processes.' The more weight that is attached to the role of such processes, the less that can be attached to the client's (conscious) judgement as to the appropriateness of a given formulation.

Cognitive case formulation (as emphasised above) rests firmly on the cognitive model, and this has also been criticised, not least for relying on simplistic, 'folk-psychological' entities (beliefs, schemas etc.), whose ontological status remains controversial. Skinner (1971), Wolpe (Weishaar, 1993) and other radical behaviourists have always insisted that inferred 'inner' constructs such as beliefs, desires, intentions etc. are neither defensible nor necessary in the theory and practice of psychology and psychotherapy. The status of such entities is also a matter of controversy among philosophers of mind, especially where the fields of philosophy, neuroscience and artificial intelligence overlap (Calvin, 1996; Churchland, 1991; Dennett, 1987; Greenwood, 1991).

5. Conclusion.

While cognitive case formulation is open to the above criticisms, it has shown itself to be a powerful tool in the theory and practice of Cognitive Behavioural Therapy.

Further research could usefully focus on such issues as therapist bias in cognitive case formulation, the role played by unconscious cognitive processes (in both therapist and client), and the building of further connections with philosophy and cognitive science.

Cognitive case formulation is central to the cognitive approach to therapy. As Judith Beck puts it (Weishaar, 1993, p. 108): 'If you use a cognitive conceptualisation, then probably whatever you're doing is Cognitive Therapy.' This perspective may enable therapists who do not want to use specific CBT techniques to at least incorporate some CBT perspective into their conceptualisation of what is going on for a client, and where the most effective intervention points might be.

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