

Do we need to formulate in cognitive behavioural therapy for obsessive-compulsive disorder?

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Summary

Do we need to formulate in cognitive behavioural therapy for obsessive-compulsive disorder?

Cognitive behavioural therapy (CBT) is the forerunner of evidence-based practice and the treatment of choice for obsessive-compulsive disorder, through the identification of specific cognitive processes associated with the condition. Effectively identifying and targeting these processes is correlated with good outcome. Formulation is a platform for clinicians and patients to identifying the idiosyncratic cognitive processes. Training clinicians in formulation is therefore an essential part of delivering effective, evidence-based treatment. This paper will discuss the importance of formulation in cognitive-behaviour therapy for obsessive-compulsive disorder and will argue that appropriate training is required in order to improve the outcome of CBT for OCD as well as to decrease relapse.

Keywords: *formulation, conceptualisation, obsessive-compulsive disorder, cognitive behavioural therapy, training.*

Riassunto

C'è necessità di una «concettualizzazione» nel trattamento cognitivo e comportamentale del disturbo ossessivo-compulsivo?

Il disturbo ossessivo-compulsivo (DOC) è una patologia diffusa e disabilitante. La terapia cognitivo-comportamentale (TCC) rappresenta il precursore della pratica *evidence-based* e il trattamento di scelta per il DOC, grazie all'identificazione degli specifici processi cognitivi associati a tale condizione. L'identificazione e la focalizzazione sono effettivamente correlate con risultati positivi. La formulazione rappresenta una piattaforma per clinici e pazienti per identificare i processi cognitivi idiosincratici. Preparare i clinici alla formulazione rappresenta una parte essenziale per trasferire un efficace trattamento *evidence-based*. In questo lavoro discuteremo l'importanza della formulazione nella terapia cognitivo-comportamentale per il disturbo ossessivo-compulsivo e sosteneremo che un adeguato training è necessario per migliorare gli esiti della TCC, così come per ridurre la possibilità di ricaduta.

Parole chiave: *formulazione, concettualizzazione, disturbo ossessivo-compulsivo, terapia cognitivo comportamentale, training.*

THE EVIDENCE FOR COGNITIVE BEHAVIOURAL THERAPY FOR OBSESSIVE-COMPULSIVE DISORDER

Obsessive-compulsive disorder (OCD) as reported by the World Health Organization, is the fourth most common psychological disorder, rendering sufferers disabled with losses in terms of earnings and quality of life (World Health Organization, 2001). Recommended treatments for OCD include pharmacotherapy and psychological therapy. Both the behavioural and the cognitive theories of obsessive-compulsive disorder have received growing attention in recent years in explaining and treating OCD.

Rachman (2003) and Salkovskis (1999) present clinical and empirical evidence, supporting the use of cognitive behaviour therapy for OCD, where CBT has been reported to produce significant improvements in obsessive and compulsive symptoms. The National Institute of Clinical Excellence (NICE) (2005) guidelines recommend CBT as the treatment of choice for mild to moderate OCD. Currently the evidence for the additional efficacy of cognitive therapy over that of behavioural therapy, which emphasises exposure and response prevention (ERP), is mixed (Abramowitz, Taylor and McKay, 2005; McManus, Grey and Shafraan 2008). However, these researchers emphasise that the addition of cognitive techniques over behavioural therapy is associated with lower dropout rates, better for those who have not previously responded to treatment or those who did not benefit from ERP.

THE ROLE OF FORMULATION IN COGNITIVE BEHAVIOURAL THERAPY FOR OBSESSIVE-COMPULSIVE DISORDER

Since the development of CBT for depression (Beck, Rush, Shaw & Emery, 1979) both research trials and clinical experience has contributed to an increasing clarity in particular cognitive and behavioural theory and treatment in CBT. Treatment targets and essential components in therapy are now highlighted for each disorder (Butler, Fennell & Hackmann, 2008).

The role of formulation in the cognitive-behavioural therapy treatment of obsessive-compulsive disorder, as with all applications of CBT, is central to treatment. Salkovskis and McGuire (2003) indicate that formulation is at the core of the treatment, forming part of the shared understanding, to which the other cognitive and behavioural components are linked. They describe formulation as a necessary stage upon which subsequent work is based. Other researchers also indicate the importance of formulation in CBT, and CBT for OCD (Roth and Pilling, 2007; Feeley, DeRubies and Gelfand, 1999). This competence is highlighted in the official United Kingdom CBT competency framework as being an important metacompetence skill (Roth and Pilling, 2007). The metacompetence skills

are abstract competences which, according to expert consensus (Feeley, DeRubies and Gelfand, 1999), are relevant to effective practice.

THE PROCESS OF FORMULATION

CF is a flexible framework in which information about the patient is obtained and assessment is structured in ways that allow the making and testing of predictions. The formulation is, in essence, a hypothesis about the maintenance of psychological problems, which may incorporate how the person came to develop a particular disorder or set of problems; it can thus be used as a «road map» for identifying treatment interventions. The therapist begins to develop a formulation during his initial contact with the patient. The therapist shares and discusses the formulation with the patient at points during therapy as a way of seeking feedback and developing a collaborative relationship and continues to revisit and, where needed, revise, expand and update the formulation and intervention right until the last session (Beck, 1995). At this point the formulation also forms part of the «blueprint» and relapse prevention strategy. According to Persons and Tompkins (in Eells, 2007), a good CF is identified as: 1) having good treatment utility, thereby contributing to treatment effectiveness; 2) being parsimonious, thus prudent in guiding treatment; and 3) being evidence-based, thus supported by controlled studies, diagnosis and objective data.

LEVELS OF FORMULATION IN COGNITIVE BEHAVIOURAL THERAPY

Leading researchers and theoreticians in the field of formulation in CBT view formulation as a progressive process, often requiring the therapist to use different levels and different types of formulation in the course of treatment. Kuyken, Padesky and Dudley (2009) recent approach to formulation proposes three main distinct levels of conceptualisation: the descriptive conceptualisation, the cross sectional conceptualisation and the longitudinal conceptualisation. These authors argue that conceptualisation can be made more reliable and valid if therapists are presented with information in a naturalistic way and as therapy progresses; as such formulation progresses through the use of new information and the patient's response to interventions.

It is thus evident that the leading authors recognise the complexity in creating a quality formulation, and regard the need for high level of skills as crucial in the formulation process. The present research focuses on therapists' ability to create a high quality cross sectional formulation.

SPECIFICITY OF FORMULATION

When reviewing the CBT literature it becomes apparent that there are numerous, well established evidence-based treatment protocols. The treatment protocols in CBT have been mainly based on the «cognitive specificity hypothesis». Since the origin of CBT, Beck (1976; 1991; 2005) and later researchers (Clark & Fairburn, 1997; Salkovskis 1997) emphasised that psychiatric disorders can be distinctively identified based on unique cognitive content. Beck (1991; 2005) stresses that much research in CBT has been devoted

to differentiation and to the identification of cognitive themes and profiles in depression and anxiety disorders, indicating that specific «cognitive profiles have been demonstrated in a wide range of disorders, including anorexia nervosa, OCD, panic disorder and body dysmorphic disorder» (Beck, 2005, p. 954).

These processes are not only important for the understanding of psychopathology but also fundamental to treatment (Gelder, 1997).

EVALUATING QUALITY OF FORMULATION

Although formulation appears to be one of the most important variables in CBT, there have only been a handful of attempts by researchers to objectively assess or measure clinicians' quality of formulation. The Rating the Quality of Cognitive-Behavioural Case Formulations (RQCBCF) was designed by Fothergill & Kuyken, 2002, however, its focus is mainly on the quality for formulation for depression. The Psychotherapy Case Formulation (CFCCM) was developed (Eells, Lombart, Kendjelic, Turner & Lucas, 2005) to assess psychological processes in depression such as core beliefs and compensatory strategies and once again, does not highlight important psychological process in OCD such as threat appraisal, safety seeking behaviours and neutralising behaviours (Salkovskis & Mcguire, 2003).

Maddison and Dudley (2009) have recently presented a new scale the Quality of Formulation Response Coding Manual (QFRCM). The manual comprises 27 items, organised in three subsections: Cross-sectional formulation (16 items), Additional aspects of formulation (6 items) and Longitudinal formulation (5 items). In this study, these researchers used only the cross sectional formulation and achieved 81% agreement, indicating very good inter-rater reliability.

In summary, despite the importance of formulation, there is no widely used measure of the quality of formulation in CBT; however, there seems to be a growing use of the RQCBCF and the CFCCM focusing on the quality of formulation (Haarhoff, 2009). In addition, there is currently no reliable, valid instrument available to assess the quality of formulation in CBT for OCD. In the research we conducted we have developed a new scale assessing specifically the quality of formulation for OCD.

LITERATURE TO SUPPORT THE ROLE OF CASE FORMULATION IN COGNITIVE BEHAVIOURAL THERAPY

A study by Persons, Roberts, Zalecki and Brechwald (2006) assessed the naturalistic outcome of CF driven CBT for anxious depressed patients. This uncontrolled, open trial used data from 58 private patients, who received CF driven CBT. This study set out to test the hypotheses that CF driven CBT produces statistically significant and clinically significant changes in anxious depressed patients. From the results of this study, Persons et al. (2006) demonstrated that anxious depressed patients, with multiple comorbidities and requiring multiple therapies, may benefit from CF driven CBT. Treatment outcomes for anxious depressed outpatients receiving individualised CF driven CBT were gener-

ally comparable to outcomes reported by studies of Empirically Supported Treatments (ESTs) for single mood and anxiety disorders. This study and its findings are of significant importance to practitioners as they provide a possible answer to the obstacles impeding the use of ESTs for patients presenting with multiple disorders. Where it was reported by the National co-morbidity survey, that there is a relative rarity of «pure cases» and, on average, patients present with 2.3 diagnoses (Harvey, Watkins, Mansell & Shafran, 2004).

An earlier study by Chadwick et al. (2003) examined, more closely, the direct impact of CF in CBT for psychosis. Overall these researchers found no evidence that CF directly impacts on any of the main targets of CBT for psychosis, namely, the therapeutic relationship, delusions or self-evaluations and distress (Chadwick et al., 2003).

A study by Ghaderi (2006) explored whether individualisation of treatment (versus manualised treatment) improved treatment efficacy. In this randomised trial, 50 patients suffering from bulimia nervosa were randomised into either manual-based or individualised CBT. The results from this study demonstrated no clinically significant differences between the two conditions at post-treatment, with both groups demonstrating improvements concerning self-esteem, perceived social support from friends, and depression. These improvements were maintained at follow-up. However, of those participating in the study, Ghaderi (2006) reports that 20% did not respond to treatment, with the majority of these (80%) having received manual-based treatment. This study therefore provides some limited support for the use of individualised CBT, with regards to response to treatment and relapse.

As indicated by the above literature review, the area of CBT formulation in general and CBT formulation for OCD has not received sufficient attention despite its important implications for the field of evidence base therapy. Our research, which will briefly describe will shade some light on the practice of formulation as well as the impact of a short training session on clinicians' formulation skills.

SUMMARY OF RESEARCH

The present research included two studies. The first study (study 1) was cross sectional, focusing on a description of clinicians' knowledge of, attitudes to, and use of formulation in which participants completed a questionnaire designed for the purpose of the study.

The second study (study 2) is a randomised experimental investigation of the impact of training on clinicians' formulation skills and related issues. The aim of the experiment was to establish whether training in formulation in the context of OCD was associated with improvements in participants' *ability* to analyse a role-played assessment video, specifically (a) the ability to create a formulation in the context of assessment; and (b) the ability to differentiate formulations systematically varying in specificity (general, anxiety specific, OCD specific).

The primary hypothesis for this study is that in terms of cognitive therapy formulation in the early stages of therapy, clinicians have reasonable levels of knowledge about what is required, matching their own *perceived* skills.

It was further hypothesised that clinicians self-rating of their CF skills may be unrealistically high. To test this idea, an additional comparison was made with practicing

therapists who can reasonably be expected to be at the upper end of the distribution in terms of their expertise in formulation, taking into account their work in specialist units. It was hypothesised that the clinicians sampled would not substantially differ from expert clinicians in terms of their use and understanding of key aspects of CBT formulation.

The primary hypothesis for the second study is that brief but detailed specialist training in deriving a CBT formulation in the early stages of therapy will reduce any gap between perceived and actual skills, as it will improve clinicians' actual skills in formulation in CBT for a specific anxiety disorder (OCD), relative to people whose skills are measured prior to training.

MEASURES

For the study, we developed the Formulation Assessment Tool and Rating (FATR) which included a video,¹ formulation measure and a formulation tasks (the properties of these tools will be published elsewhere). In brief, a 12 minute role-play video was produced to present a case to participants to evaluate the clinicians' ability to create and to recognise a high quality formulation for an OCD case. The role-play video used in the present study represented a case of a patient presenting with typical characteristics of fear of contact contamination, associated with OCD.

The formulation measures included asking participants to freely create their formulation on the video presented. Additionally participants were asked to complete a ranking formulation task in which three distinctively different idiosyncratic formulations were constructed for the video role-play: an idiosyncratic, non-specific systemic destabilisation formulation, an idiosyncratic specific anxiety formulation and an idiosyncratic OCD formulation. After watching the role play video and conducting the *creating a formulation task*, participants were then provided with the three formulations in random order across participants, and were asked to rank from 1-3 the best formulation for the case presented (a «recognition» task). The third part of the FATR is an observer rating of the participants' formulations, which was designed for the study.

A further rating scale was designed for the study, the *Rating the Quality of Case Formulation for Obsessive-compulsive Disorder* (RQCFO). This scale was used to rate each formulation created by the participants. The scale has high inter rater reliability properties. This measure includes specific OCD processes essential for the development of a high quality formulation including threat appraisal, integration, and appropriate categorisation of data (i.e., avoidance, naturalising, mood, etc.)

The specialist comparison group included practitioners working at the Centre for Anxiety and Trauma, institute of psychiatry.

RESULTS

The results of the main analysis suggested that the majority of the clinicians always share their initial formulation with their patients, as is also demonstrated as common prac-

¹ This video can be sent to you on contacting the author.

tice in the literature. It was further found that the highly specialist group, in comparison to the specialist group, tend to share their formulation in the first session significantly more frequently than the clinicians who tend to share their formulation in the second session onwards. No significant differences in terms of the tendency to reformulate an initial formulation were noted, however, the highly specialist group tend to share their reformulation more frequently than the clinicians group. Also, it was found that the highly specialist group were less likely to present a pre-existing model of their patient's psychological difficulties in comparison to the clinicians group, but rather creating an idiosyncratic formulation for each client.

Study 2

Participants were randomly allocated to assessment of formulation skills either before or after the training workshop in order to evaluate the impact of training. Overall, there is evidence that (as rated by blind raters) the formulations produced by participants after they had undertaken the workshop were rated as higher quality relative to those produced by the group randomly allocated to the formulation exercise before the workshop. This result is consistent with the hypothesis that a workshop which targets formulation skills at the beginning of therapy will improve clinicians' actual skills in formulation in CBT for OCD.

In addition, in the «recognition» measure, the post training group rated the specific OCD formulation as significantly better than the pre-training group. These results are consistent with the hypothesis that the post training group would be more likely than pre training group to identify «recognise» the specific OCD formulation as the best formulation for the case.

CONCLUSIONS

The researcher set out to investigate clinicians' knowledge and use of formulation in clinical setting, as well as to examine the effect of time-limited training on formulation for OCD. The researcher's aim was to add to the existing, limited literature in the area of formulation. From the findings of these studies, it has been found that there is a gap between therapists' perceived and actual formulation skills, and that time-limited training has a significant impact in bridging the gap between these. This research further demonstrated that there are some discrepancies in the way highly specialists and therapists report on their use formulation in clinical practice. The results of the study demonstrated that highly specialist clinicians report using reformulation more frequently with their patients, and are less likely to use an educational approach when creating a formulation. In addition, the highly specialist group do not perceive «strengths and protective factors» as an important processes to be included in an initial formulation, in comparison to the therapists group. The current research also indicated that the specificity hypothesis guides clinicians in constructing formulation and that training assists to refine their specificity differentiations.

Future research in the area of formulation in general and in particular in CF for OCD is highly needed. The current study focused on training in formulation skills in OCD, further

research could examine the impact of training on different disorder specific CBT models to establish the degree of generalisability. In addition, an exploratory design could shed some light on the way clinicians create formulations for patients presenting with comorbidity, followed by an experimental design establishing the impact of training on these skills. This will assist the field of CBT developing from disorder specific to more commonly encountered clinical presentations.

To monitor for novelty effect, a future study could add a follow up dimension so as to determine the long term effect of the training on formulation skills, as well as the impact of time-limited training in formulation on therapeutic outcome. Further studies could establish what factors are important in clinicians' integration of training into their existing knowledge and practice. Monitoring of clinicians' use of formulation skills following the workshop would reveal whether clinicians typically default to their pre-training habits or whether they do change their practice. Such a study could investigate the contributions of training, supervision, therapist factors (e.g., age, experience), therapist beliefs (i.e., that CBT is an effective treatment, that they are competent therapists, that their patient is capable of change) and other factors such as the «complexity» of the patient.

The collaborative relationship, an essential part of CBT, was not included in the present study. Future research can investigate whether training increases therapists' ability to better use the collaborative relationship as a vehicle to increase formulation validity. Research could measure the extent to which a collaborative relationship facilitates the process of reformulation. It would be interesting to explore what other skills/qualities/competences are important: i.e., if highly skilled in Socratic questioning, are formulation skills improved as a result, or are these independent constructs?

Furthermore, since the validity of the formulations created by the participants in the study were not examined, a future study, focusing on *patient's perspective* could, for example, making use of multi-variant methodology, examine the impact of short and focused training on the validity of the formulations created. Further research, such as that conducted by Chadwick et al. (2003), examining the validity of formulation, could examine when patients are more likely to benefit from the formulation being shared with them, and in which session. Research could further explore whether patients involved in the development and the process of formulation and reformulation increases validity, and what impact this has on treatment outcome.

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