Evaluating the Content and Quality of Cognitive-Behavioural Therapy Case Conceptualisations

Beverly A. Haarhoff, Massey University
Ross A. Flett, Massey University
Kerry L. Gibson, University of Auckland

Whilst case conceptualisation (CC) is considered a key Cognitive-Behaviour Therapy (CBT) competency, assessment and evaluation of the content and quality of CBT CC skills is not generally part of CBT training. In this paper, the content and quality of CCs produced by novice CBT clinicians was evaluated. Twenty-six novice CBT clinicians constructed CCs based on four clinical case vignettes. The content and quality of the CCs was evaluated using three rating scales, the Case Formulation Content Coding method, the Fothergill and Kuyken Quality of Cognitive-Therapy Case Formulation rating scale, and the CBT CC rating scale and benchmark conceptualisations. Descriptive statistical analysis of content displayed consistent distribution of subcategories of clinical information included, or omitted in the CCs. Underlying psychological mechanisms were emphasised. Information concerning biological, socio-cultural, protective factors, and the therapeutic relationship were generally omitted. As far as quality was concerned, between 50% -61% of participants produced “good-enough” CBT CCs. The consistent pattern of clinical information evidenced in the participants’ CCs highlighted strengths and weaknesses which have implications for improving training in CBT competency.

Case Conceptualisation (CC), sometimes referred to as case formulation, is widely regarded as a core psychotherapeutic competency (Dobson & Shaw, 1993; Eells, 2007; Kuyken, Padesky, & Dudley, 2009; Persons, 2008). Notwithstanding the consensus regarding its importance, CC has been described in the literature as “poorly defined and taught” (Sperry, Gudeman, Blackwell, & Faulkner, 1992) and, “seldom systematically evaluated” (Eells, Kendjelic, & Lucas, 1998). The situation is gradually changing and, with the publication of two influential books, “The case formulation approach to cognitive-behaviour therapy” (Persons, 2008) and “Collaborative case conceptualisation” (Kuyken et al. 2009), there is evidence that a more systematic approach to developing, and effectively using a CC in clinical practice, is evolving. CC has proved a difficult area to research as it is a “principles driven” approach to treatment rather than a “treatment” per se (Persons, 2008).

Key research questions have concerned the content, quality, reliability, validity, treatment outcomes positively correlated with individualised CC, and clinical utility (Kuyken et al., 2009). Consensus regarding the content of a clinically useful CC has been achieved over the past 30 years after the “consensus issue in psychoanalysis” had been named (Seitz, 1966, cited in Eells, 2007). Systematic models of CC generally include a description of presenting problems, the patient's developmental history, precipitating and maintaining factors, weaknesses, and suggestions regarding a treatment plan (Beiling & Kuyken, 2003).

Over the past decade the evaluation of content and quality of CCs has been reported in a few studies (Eells, Kendjelic, & Lucas, 1998; Eells, Lombart, Kendjelic, Turner, & Lucas, 2005; Kuyken, Fothergill, Musa, & Chadwick, 2005). Further progress has been facilitated by the development of a number of structured CC formats such as the Judith Beck CBT CC form (Beck, 1995). To evaluate content and quality, the Case Formulation Content coding method (Eells et al., 1998) was developed and remains the only published manual differentiating categories of information contained in most case conceptualisation models. The Case Formulation Content Coding method has been shown to be a reliable measure of CC (Eells et al., 1998; Eells et al., 2005, Kuyken et al., 2005), which codes the content and quality of clinical information included in CCs across Psychoanalytic, CBT, and Humanistic models of psychotherapy.

As far as reliability of CC is concerned, a number of studies have shown a greater degree of reliability for descriptive, rather than the explanatory, components of the CC (Kuyken et al., 2005), and that the use of structured formats, such as the Judith Beck (1995) CC form, improves reliability (Kuyken et al., 2005). Research regarding the effect of individualised CC on treatment outcome has been somewhat ambiguous, and for the most part no clear superiority has been established for individualised CC informed treatment, as compared to manualised treatment protocols (see Beiling & Kuyken, 2003 for a summary of this research). It is however
argued that comparing manualised and individualised conceptual formats is perhaps misguided as effective manualised conceptual protocols have to be individualised according to the idiosyncratic symptoms of the patient (Persons, 2008).

Recent studies have demonstrated that generic case formulation training improves CC quality (Kendelie & Eells, 2007), and that therapist competence in homework use and CC explained 40% of within patient variance, and 19% of between patient variance associated with positive change on the BDI-II (Easdon, 2010). The literature places an increasing emphasis on making the process of CC more explicit, and therefore more easily taught. A logical first step in this process is to find out exactly what sort of information practicing clinicians include in their CCs (Beiling & Kuyken, 2003). This paper reports the findings from a study which evaluated the content and quality of Cognitive-Behaviour Therapy (CBT) CCs produced by 26 novice CBT practitioners who had recently graduated from a Postgraduate diploma in CBT. The CCs were based on four clinical case vignettes which described two common disorders, Depression and Generalised Anxiety Disorder (GAD).

The following questions were considered; “What kind of information do novice CBT clinicians generally include in their CCs?”; “What kind of information do they omit?”; “What is the quality of CBT CCs produced by this group?”; and finally “What implications, do these findings have for training in this overarching competency?”

Method
Participants
The study took place in New Zealand and participants had graduated from a Postgraduate diploma in CBT between 2000 and 2004. The number of participants available to take part in the study was limited by the fact that the Postgraduate diploma had only existed for four years prior to the study and, at the time of recruitment only 38 trainees had completed all graduation requirements. Twenty-six graduates agreed to take part in the study representing 68% of the total number available. To gain admittance to the postgraduate diploma applicants must hold at minimum, a Bachelors (or equivalent) degree from a New Zealand tertiary institution, have professionally qualified in a related mental health field, and have had clinical experience in their chosen field over the past five years. The postgraduate diploma, based on the Vail Practitioner Scholar model of training (Stoltenburg, Pace, Kashubeck-West, Biever, Pattersen, & Welsh, 2000), is completed over a minimum period of two years. Four theoretical papers, “The theory and practice of CBT”, “CBT for Depression”, “CBT for the Anxiety Disorders”, and “CBT for chronic and complex disorders” are taught in ‘block’ mode during the first year. The block mode of teaching is favoured as it allows trainees to continue in their professional duties. During the second year of study a supervised clinical practicum is undertaken during which the trainee to see two clients consecutively over the course of the year for CBT. All therapy sessions are digitally recorded and eight CBT sessions are scored for competency using the Cognitive Therapy scale (Young & Beck, 1980). In addition the trainee produces two case studies and delivers two case presentations. Supervision is delivered by the university clinical staff and the trainee is required to attend 35 hours of supervision during the practicum year. Prior experience in CBT is varied with most trainees having had minimal or no formal CBT training prior to enrolment. Professions represented were psychologists (n = 6), nurses (n = 5), psychiatric registrars (n = 2), general practitioners (n = 2), psychotherapists (n = 3), social workers (n = 2), occupational therapists (n = 2), and counsellors employed in both public and private mental health settings (n = 4). The average age was 45 years (SD = 11), with eight years (SD = 6) of experience, and eight hours (SD = 8) spent doing CBT per week. Participants were employed in community mental health (n = 10), private practice (n = 5), hospital (n = 4), and child and adolescent mental health (n = 2). The remaining participants worked in a high school, correction services, sundry non-governmental organisations, and a university. Nine of the participants had a Masters degree, five a Bachelors degree, and the remainder had medical qualifications. The requirements for the diploma and demographics of the sample duplicate those found in the majority of postgraduate CBT diplomas in the United Kingdom.

Measures
Four measures, namely: The Case Formulation Content Coding method (Eells et al, 1998); The Quality of Cognitive Therapy Case Formulation rating scale (Fothergill & Kuyken, 2002); The CBT CC rating scale (Haarhoff, 2008); and four “benchmark” CCs were used to evaluate the content and quality of the CCs. Each of these measures is described below.

At the time of writing the Case Formulation Content coding method (CFCCM) was the only published method, which could be applied across different models of psychotherapy, to reliably and comprehensively categorise information included in a CC. Four broad categories of information, namely Descriptive, Diagnostic, Inferential, and Treatment Planning are distinguished, and a list of subcategories which describe clinically relevant information, coded under each. To assess content, clinical information relevant to each subcategory is coded under the relevant subcategory and subjected to a frequency count. To measure quality, the CFCCM considers three sources of information, namely, Comprehensiveness of information, the relative weighting of Descriptive and Inferential information (Inferential information is considered more indicative of quality), and a number of specific dimensions of quality such as “precision of language”, “complexity”, and “degree of inference”. In this study only Comprehensiveness, as measured by the CFCCM, was included as a measure of quality as the rating scales, discussed below were targeted specifically at the specific elements of a CBT CC and deemed to be a sufficient measure of quality. Comprehensiveness was calculated by the number of inferential subcategories included in the CC together with the Diagnostic category. A total of ten potential subcategories of information could therefore be incorporated in a comprehensive CC. It is assumed that the number of subcategories included in the CC indicated the scope and breadth of the CC, and that attention to more subcategories would correlate with
The CBT CC rating scale was developed for the study. The scale was included as more comprehensive in breadth than the Fothergill and Kuyken scale, having four categories, the “Problem List”, “Diagnostic”, “Working Hypothesis” and “Treatment Planning”. The scale links assessment, conceptualisation, and treatment planning. The categories are influenced by Persons’, (1989) and Persons and Tompkins’ (2007) case formulation model. Each category is rated on a ten point scale with anchor points based loosely on the Cognitive Therapy Scale (Young & Beck, 1980) (0 = absent, 2 = barely adequate, 4 = mediocre, 6 = satisfactory, 8 = good, and 10 = excellent, with a total score of 40). The criteria which would warrant the top rating of ten are included in Appendix B.

Influenced by an earlier study in which Judith Beck, identified as an expert, was approached to provide a benchmark CC as a measure of quality (Kuyken et al., 2005), a local expert provided the “benchmark” CCs, as additional measures of quality. Eells defines expertise in CC as having published, or led workshops on CC, or having achieving national recognition as a leader in the field (Eells, et al., 2005). Based on these criteria a local “expert” was identified to provide four benchmark CBT CCs constructed from the same four case vignettes supplied to the participants. The expert had been part of a panel in a preliminary study which evaluated the four case vignettes used in terms of amount and type of information, level of complexity, and time taken to complete. The panel were asked to complete case conceptualisations based on the case vignettes constructed for the study under the same conditions as the participants, which meant “benchmark” CCs were produced by an expert “thinking on her feet”. The following headings were used by the expert to structure all four CCs: “Relevant Childhood data”, “Core Beliefs”, “Underlying Assumptions”, “Compensatory Behaviours”, “Presenting Problems”, “Diagnosis”, “Therapy Interfering Behaviours”, “Treatment Plan”, and “Implications for the Therapeutic Relationship”. The quality of the participants’ CCs was assessed by calculating the percentage of agreement for information matching the categories selected by the expert. For example if 50% of participants identified an identical core belief to that of the expert, it was assumed that 50% of participants were on the “right track” towards producing a quality CC.

The clinical case vignettes

A summary of the clinical cases, presented as written vignettes developed specifically for the study can be found in Appendix C. Two preliminary studies were undertaken to construct the case vignettes. In preliminary Study One, a panel of five experienced CBT clinicians were asked to read the vignettes and construct CCs to ensure that the vignettes were equivalent in terms of the amount, complexity, and type of information. The adequacy of the timeframe allocated to participants was also trialled, and found to be sufficient. Preliminary Study Two assessed the vignette as a stable measure to elicit the CC. In this study, four novice CBT clinicians, with similar training and experience completed three CCs based on three of the vignettes, with a time lapse of three weeks between each completion. The CCs were coded using the same measures as the larger study. Visual inspection of results confirmed the vignette as a stable measure. Each vignette was approximately 500 words in length and significant identifying information was altered to preserve confidentiality. The following headings, from an earlier study (Eells & Lombart, 2003) were used: Identifying Information, Presenting Condition, History of the Presenting Condition, History of Mental Health, Developmental History, Social History, and Current Mental Status. These headings reflect consensus regarding information required to construct a valid and reliable CC (Eells et al., 1998). In addition, information consistent with the CBT model was embedded in the narrative. For example, information from which underlying beliefs, assumptions, and compensatory behaviours could be deduced was included.

Vignettes were constructed to describe two common disorders namely Major Depressive Disorder and GAD. Each disorder was represented by two vignette examples.
Procedures

The task

The participants received a definition of a case formulation and the following instructions: “After reading each case vignette (there are two in your pack) you have 20 minutes to produce a written CC for each. When you have finished, you will have a further 10 minutes to think about how you might treat this patient. Please write down your ideas. Please conform to the time allocated and stop when the time runs out. You need to think about the CC and try to address everything that you think is important within the time limit. Speculation and hypothesis generation are part of the process. This exercise is to be conducted in a ‘think on your feet’ mode. Please try and try to relax about this exercise, scribbled down incomplete sentences are acceptable”. Participants were provided with a sheet upon which to record the time they started and completed the exercise. After three six-weeks time lapse they were sent and asked to complete vignettes three and four in the same manner with the same instructions. (The time lapse was scheduled as part of a larger study which is not reported in this paper). The written CCs were returned by post to the first author.

Data Analysis

Written narratives were transcribed and segmented into idea units by the first author and two research assistants as preparation for coding information under the content categories of the CFCCM (see Table 1). An idea unit is a fragment of language, sentence, phrase, or word which is judged to contain a complete idea (Stinson, Milbrath, & Bucci, 1994). After the CCs had been segmented into idea units, the idea units were coded under the relevant subcategories in the CFCCM and subjected to a frequency count. The CCs were then assigned quality ratings using the two CBT rating scales described under measures. A total of 104 written CCs were returned for analysis and of these 10% (n=11) were randomly selected for independent quality rating by a research assistant already familiar with the quality rating scales. A 100% consensus within .5 was achieved for the Fothergill and Kuyken Quality of Cognitive Therapy Case Formulation rating scale, and 65% agreement, averaged over the four subscales of the CBT CC rating scale. The data was then entered into SPSS 15 for further analysis.

Results

Content of CBT CC

The CFCCM yielded results showing a consistent distribution of idea units coded under the four categories namely Descriptive, Inferential, Diagnostic, and Treatment information. In view of the consistency of the distribution of idea units recorded under each subcategory of information by participants, the percentage of idea units has been averaged over the four case vignettes.

The Descriptive Information category contains factual information obtained from the vignettes. In this category “developmental history” and “symptom information” subcategories received the most attention.

The Inferential category of information is considered central to the CC, proposing a hypothetical, underlying psychological mechanisms as an explanation for the client’s presenting psychological problems. By far the most attention was given to two of the nine subcategories, “Inferred Psychological Mechanism” and “Predisposing Factors”. With 94.5% of the participants recording at least one idea unit under “Psychological Mechanisms”, and 77% recording idea units under the “Predisposing Factors” subcategory.

The “Inferred Psychological Mechanism” was informed by the CBT model. Core beliefs about the self were identified by 86% of participants. An average of 67% and 71% identified underlying assumptions and compensatory behaviours respectively. Core beliefs about “others”, and the “world”, did not receive the same degree of attention as those related to the self.

Other subcategories: “Problems in Global Functioning”, “Problems Inferred from the vignette”, underlying “Biological”, and “Protective Factors” were attended to by less than 50% of participants. The subcategories receiving the least attention were “Inferred Socio-Cultural Mechanisms” and “Therapy Interfering Behavior”.

A majority of participants (81%) were accurate in identifying an Axis I diagnosis, however few noted Axis II personality traits.

Thirty-eight subcategories of information are included under the “Treatment category”, and grouped under nine headings namely; “type of therapy/treatment considered”, “assessment”, specific structured techniques”, “structure”, “predisposing experiences”, “psychological mechanisms”, “social and cultural factors”, “biological factors”, and strengths”. Participants emphasised the use of “specific structured CBT interventions”, with the “thought record” the most frequently chosen intervention. There was evidence that some participants had correctly selected a particular intervention to target a specific diagnostic presentation (for example using the “activity schedule” in the treatment of depression). Under “structure”, participants considered drawing up a “problem” and “goal list” important. “Underlying psychological mechanisms”, as a dimension of treatment, was noted by the majority of participants with the most emphasis in this section placed on core belief work. Attending to the “therapeutic relationship” as a therapy intervention, was rare and the least attention was given to socio-cultural, biological factors, and emphasizing the clients’ strengths.

CBT CC quality evaluation

The evaluation of the quality of CBT evaluates the degree to which the information is parsimonious, meaningful, justifiable, and coherent (Kuyken et al., 2005). Table 2 summarises the results of the first three quality scales: The Comprehensiveness, Fothergill and Kuyken Quality of Cognitive Therapy Case formulation, and the CBT CC rating scales.

The CFCCM Comprehensiveness scale

Participants were given a rating out of ten (the nine inferential subcategories and the diagnosis category). The mean number of subcategories indicating comprehensiveness remained consistent over the four case vignettes, with an averaged rating of 4.5 (SD=1.5) across the four vignettes. Indicating that, on
average, participants attended to less than half of the available subcategories of information. Notable gaps were: the attention given to “therapy interfering behaviours”, “positive indicators for treatment”, and “underlying biological” and “socio-cultural” mechanisms.

**The Fothergill and Kuyken Quality of Cognitive Therapy Case Formulation rating scale**

The Fothergill and Kuyken Cognitive Therapy Case Formulation Quality rating scale has a single rating. To obtain the top rating of four, core beliefs, underlying assumptions and compensatory behaviours should be integrated to provide an integrated explanation which logically accounts for the presenting problems. Relevant developmental history should be specified, and a number of situational examples showing the situation, thought, mood and behavioural cycles which maintain the problem identified.

At least 50% of the participants produced either “good enough” or “good” CCs across all vignettes. The average rating achieved across all four case vignettes, to the nearest rounded decimal point was three with a standard deviation of less than one. Five participants (19%) were rated in the top category “good” category across all four case vignettes. All of these participants either used the Judith Beck CC form (Beck, 1995) or followed the format closely, producing CCs which were “a coherent and integrated whole with strong links between all the elements” (Fothergill & Kuyken 2002). This format enhanced the quality and enabled them to structure their information and attend to all the aspects of the CBT CC including the situational examples.

Four of the participants (15%) were rated between 2.5 and 1.5 (poor). In these examples it was clear that the participants understood the dynamics of the case examples but were formulating using more general principles. This meant that the CCs took many of the recommended categories (as described in the ‘content’ section) into account, however the more specific CBT focus was not well attended to.

Between four and five participants were rated two (poor) and below (very poor) for vignettes one, two and three respectively. Reasons for receiving a “poor” rating were: the purely descriptive nature of the information provided (summarizing the information provided in the narrative), sparseness of information, a lack of specificity regarding the CBT content of the CC (for example core beliefs, underlying assumptions, and compensatory behaviours were not identified), and disorganized presentation.

**The CBT CC rating scale**

The “problem list” was the weakest category with an average of 54% of the participants leaving this category out altogether. A minority of participants (between three and six) scored above six indicating that they had identified most of the problems. Only one of the participants, in vignette one, achieved a score of eight. The remaining participants had identified some problems, but did not prioritize, or provide the functional analysis of the specific problems suggested as a crucial step in CC (Persons, 2008).

As far as the diagnosis category was concerned 70% of participants were able to identify an Axis I. Only 15% of participants recognised entrenched personality styles, although there were indications of personality traits in all the vignettes. Identifying personality traits has implications for the therapeutic relationship, and the recognition of possible therapy interfering behaviours.

In the “working hypothesis” category, all of the participants had attempted at least a rudimentary explanatory hypothesis, and approximately 61% scored six and above. The majority of participants therefore identified core beliefs, underlying assumptions, and linked these aspects of the person to relevant developmental or historical experiences. An average of 50% of the participants were rated seven and above indicating coherent and meaningful CBT CC’s which linked the most salient factors. Only one participant obtained a score of nine in vignette two and three. A top score of 10 meant meaningful speculation about the therapeutic relationship and the course of therapy, against the backdrop of the client’s underlying assumptions and compensatory behaviours.

In the “treatment plan” category, on average of 64% of participants were rated above six. These results show that the majority of the participants were able to develop a CBT treatment plan which was guided by an appropriate CBT protocol. Furthermore that they were able to structure the treatment correctly, indicating such aspects as appropriate CBT assessment measures, the development of problem and goal lists, and the application of structured cognitive and behavioural interventions appropriate to the diagnosis. Vignettes one and three described clients with GAD, complicated by features of panic disorder, specific phobia and health anxiety. The decision making process regarding treatment selection in these instances may have been more challenging, especially in vignette three. Vignette two and four described depressed presentations. Here the generic CBT model is appropriate, and could have made for easier choices regarding treatment planning.

### Table 2. Mean quality ratings obtained in vignettes one, two, three and four for three quality scales

<table>
<thead>
<tr>
<th>Ratings</th>
<th>Comprehensiveness Scale (CFCCCM)</th>
<th>Fothergill &amp; Kuyken CT Conceptualisation Quality Rating Scale</th>
<th>CBT case conceptualisation Rating Scale</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>0-10</td>
<td>0-4</td>
<td>0-40</td>
</tr>
<tr>
<td>Vignette one</td>
<td>M=4.8 (SD=1.3)</td>
<td>M=2.9 (SD=1)</td>
<td>M=18.8 (SD=5.6)</td>
</tr>
<tr>
<td>Vignette two</td>
<td>M=4.5 (SD=1.3)</td>
<td>M=2.7 (SD=1)</td>
<td>M=18.2 (SD=5.5)</td>
</tr>
<tr>
<td>Vignette three</td>
<td>M=4.2 (SD=1.5)</td>
<td>M=3 (SD=1)</td>
<td>M=17.2 (SD=6)</td>
</tr>
<tr>
<td>Vignette four</td>
<td>M=4.5 (SD=1.7)</td>
<td>M=3 (SD=1)</td>
<td>M=17.3 (SD=5.3)</td>
</tr>
</tbody>
</table>
The “benchmark” CCs as measures of quality

Overall, the highest percentage of agreement with the expert was recorded under “relevant childhood data”, “Axis I diagnosis”, “compensatory strategies”, and “core beliefs about self”. Specific aspects, recorded under the theme “therapy interfering behaviour”, registered almost no agreement, with only one participant in vignette two and three, and two participants in vignette four, agreeing with the benchmark. Other omissions noted across vignettes two, three and four was any reference to the Axis II diagnostic traits identified by the expert. In vignette two, two participants identified Axis II personality disorder traits, and in vignettes three and four, only one participant identified Axis II personality disorder traits. The percentage of agreement regarding the “problem list” was also low, with the average agreement in all four vignettes falling below 30%.

It should be noted that although the expert’s benchmark CCs received high ratings on the quality rating scales used in this research they do not necessarily represent the “only” way to understand and explain the presenting problems, as all CCs are presented as hypothetical explanations (Bieling & Kuyken, 2003).

In summary, the most notable finding was the consistent distribution of the specific sub-categories of information either emphasised or ignored by the majority of the participants. As indicated by the results obtained on the comprehensiveness scale, participants, on average, attended to less than half of the potentially useful aspects of case conceptualisation information. Developmental factors and underlying psychological mechanisms at play in the maintenance of the symptomatology were emphasised. A high percentage of the participants failed to mention underlying biological and socio-cultural mechanisms, relevant protective factors, and aspects of the therapeutic relationship. Although more than half the participants described presenting symptoms, few developed these into a useful targeted problem list. In addition, although the majority of participants made some reference to Axis I diagnosis, little attention was given to the possibility or presence, of enduring personality styles.

The most important goal of any evaluation is to identify strengths and potential weaknesses or blind-spots. As stated in the introduction, systematic evaluation of CCs in training programs is unusual, making these findings a useful contribution to best practice as far as training in this key competency is concerned. This research has begun to consider what kind of information novice clinicians include and omit in their CCs. In the discussion below findings showing particular and consistent trends will be contrasted with previous research studies, and the resulting implications for training, highlighted.

Discussion
The evaluation of the CBT CCs

Findings are consistent with the results of the few previous studies evaluating CC content and quality, (Eells et al., 1998; Eells et al., 2003; Eells et al., 2005), which indicate lack of attention to a number of components of information across different psychotherapy models of CC (psychoanalytic, existential/humanist, and CBT).

In the following discussion, the perceptual gaps, identified in the present study, are contrasted with previous studies, and attendant implications for training suggested.

Socio-cultural and biological mechanisms

Socio-cultural mechanisms refer to ethnicity, socio-economic status, religious beliefs, acculturation, and absence of social support (Eells et al., 1998). The role of gender and sexual orientation could also be considered under this category. Biological mechanisms would include both genetic and acquired conditions contributing to the problem (Eells et al., 1998). The small amount of attention given to biological and socio-cultural mechanisms by participants in the present study is consistent with the results of an earlier study describing the development of the CFCCM where it was found that only 1.8% (n=1) inferred a biological, or socio-cultural mechanism in a sample of 53 CCs (Eells et al., 1998). This was a naturalistic study where the data set consisted of randomly selected intake reports and the therapists had not been instructed to construct a CC. In this example the therapists came from different orientations, indicating that a lack of attention to socio-cultural and biological factors is not limited to CBT practitioners. A recent study compared the quality of CC in psychodynamic and cognitive behavioural therapists, divided into three groups, novice, experienced, and expert. Here a very similar pattern emerged, with participants across all groups, receiving mean quality scores of less than one, indicating that in this study the biological and socio-cultural elements were “not present”, or “present but not elaborated” (even among “experts”) (Eells et al., 2005).

In the present study, the CC task was clearly specified and the participants did marginally better when compared to previous studies. As far as socio-cultural and biological factors were concerned an average of 11% of participants registered idea units.

Interestingly, consistent with the earlier study (Eells et al., 2005), the “expert” benchmark CCs were similarly short on idea units which could be coded as socio-cultural.

One explanation for the failure to consider biological and socio-cultural mechanisms could be the “availability heuristic” (Wilson, 1995), which is one of a number of “strain reducing” heuristics employed under demanding decision making conditions (such as psychological assessment and CC (Waddington & Morley, 2000). Participants’ attention may have been focussed, predominantly, on the CBT aspects of the CC screening out other possible contributing factors. To counteract this tendency some authors have proposed that an important part of the CC process as a “theory of the case” (Persons, 1989), should include generating alternative explanations, or hypotheses, outside of a specifically psychological focus, which can be tested (Meier, 2003; Mumma, 1998).

Another contributing factor leading to perceptual blind spots could be that the cognitive- behavioural therapies have distanced their analysis of clinical problems from the social context (Tarrier & Calum, 2002). This
criticism could also be applied to the other individualized models, such as psychoanalysis. These authors point to the fact that behaviour therapists view the environment primarily as a reinforcement or punishment delivery system, and cognitive therapists have an internalised or cognitive focus which tends to ignore, or obscure the interpersonal context (Tarrier & Calam, 2002, p 320). It is proposed that a pivotal role should be given the interpersonal and social context in understanding factors such as resilience and vulnerability, which are crucial in a useful CC. This is also true for biological factors, and it is suggested that clinicians familiarize themselves with epidemiological data on risk factors.

There is increasing emphasis, in psychotherapy, on multi-cultural competence, as the demographics of most developed countries become more diverse through immigration (Eells, 2007), and the cultural differences of indigenous populations are given more attention (Hayes, 2006). CBT is an individualised therapy which emphasises verbal skill, rational thinking, and logic, all of which are stereotypical of the Western epistemological tradition. A mindset, such as this, can contribute to neglecting the communal, family based traditions of many non Western cultures. It is important therefore, that CBT training emphasizes culture beyond mere lip service, and offers conceptual direction for the inclusion of this dimension (Ridley & Kelly, 2007).

The therapeutic relationship

A minority of participants (16%), included information about the role of the therapeutic relationship in the CC and treatment plan. There were a number of clear indicators for both therapy interfering, and therapy enhancing factors, embedded in the narratives of the case vignettes. Once again these findings were consistent with the Eells et al. (2005) study, where novice, experienced, and expert clinicians received a quality rating of less than one on this dimension. In the present study, the benchmark CCs provided by the expert, included references to the therapeutic relationship in all the “benchmark” CCs.

The therapeutic relationship is considered a pivotal “common factor” in psychotherapy and client change (Bachelor & Horvath, 1999), and the importance of the interpersonal aspects of the therapeutic relationship have received increasing attention as CBT has developed to include treatment for chronic and complex presentations such as those with a diagnosis of personality disorder (Beck, 2005). All of the vignettes contained behavioural and cognitive processes indicating personality traits which could have negatively and positively affected the course of therapy and therefore should have been included in the CCs.

Protective/resilience factors

Protective factors, which include client strengths and resilience, are extra therapeutic factors which enhance the probability of a positive psychotherapeutic outcome (Padesky & Mooney, 2006). All of the clients described in the vignettes had several obvious protective factors which could have been noted.

Recent approaches to CC emphasise the importance of including strengths to build on existing resources and broaden the field of possible interventions (Kuyken et al., 2009, p 120). CBT is described as a problem focussed therapy (Beck, 1995) and it could be postulated that this orientation may have limited the participants’ attention to protective and resilience factors.

The Problem List

A list of the client’s presenting problems is pivotal for the development of a CBT CC, providing the clinician with the opportunity to uncover themes and causal relationships (Persons, 1989; Persons, 2008). The problem list is a starting point for therapy, providing a focus for treatment goals, a plan of treatment to achieve the goals, and a platform to evaluate the success or failure of a treatment intervention (Persons, 1989).

On average 50% of participants failed to prioritise the identified problems, speculate about problems that may have occurred outside the client’s awareness, or might interfere with the therapeutic relationship, or functionally analyse the components of the problem. Interestingly other authors have observed that clinicians often do not produce comprehensive problem lists and frequently leave out important non-psychological information such as medical problems (Persons & Tompkins, 2007). In this study, when suggesting an appropriate a treatment plan, a majority of the participants (73%) said that they would develop a problem list, indicating that there was an awareness of this important aspect of treatment planning, which did not in this study translate to specifying problems in the CC section.

Axis II Personality Traits

The four clients described in the vignettes had clear Axis I diagnoses which were for the most part identified by the participants. The expert in the benchmark CCs, however, identified Axis II personality traits in each of the clients, dependency and avoidance being the most prominent. Few (6%) of the participants emphasised these traits, making this the most poorly attended to subcategory of information. The scope of CBT has expanded to provide treatment protocols for chronic and complex client presentations where personality characteristics are prominent and enduring (Beck et al., 2004). Recognising enduring cognitive styles and overdeveloped and underdeveloped behaviour patterns common to personality profiles is invaluable conceptual information, particularly regarding predictions about the therapeutic relationship (Beck et al., 2004). The failure of the participants to identify personality traits may have contributed to the lack of prominence given to relevant aspects of the therapeutic relationship.

The results of the present study, highlight subcategories of conceptually relevant clinical information consistently ignored by a majority of the 26 participants. These findings are consistent with previous research findings in the United States. A number of factors could have contributed to this state of affairs, namely tunnel vision, the availability heuristic, blind spots within the CBT model (individualistic, internalised cognitive focus), a “problem” as opposed to resilience focus, and a reluctance to consider Axis II personality characteristics.

The similarity between current findings and those of previous studies gives weight to an impression that a neglect of these factors is not limited to
CBT training, and that across the various well established psychotherapy models, insufficient attention is given to factors beyond the immediate psychological dimensions of the CC. In the following section a number of measures to address these omissions are proposed.

**Implications for training**

Including rating scales such as those utilised in the present study to systematically evaluate CCs produced by trainees as a matter of routine, is an important first step towards identifying strengths and weaknesses, and in practical way, alerting trainees and trainers to omissions in the type of clinical information receiving appropriate attention. Adapting CC formats such as the Judith Beck CC form (Beck, 1995) to include extra psychological elements of relevance. Judith Beck has revised her original form to include a box to record clients’ therapist related beliefs as a means to focus attention of the therapy relationship (Beck, 2005), and sociocultural, biological and protective factors could be integrated in a similar fashion. Encouraging trainees to generate alternative hypotheses, beyond the strictly psychological, (Persons & Tompkins, 2007) is also a way of breaking through the apparent tunnel vision regarding the genesis and maintenance of the presenting problems.

As far as sociocultural factors are concerned, it is important that CBT training emphasizes these aspects and offers conceptual direction for the inclusion of this dimension. Culture needs to be interpreted in the widest possible manner to include older adults, people with disabilities, and homosexual, lesbian, inter-sex individuals, along with the more obvious dimensions of ethnicity, multi-culturalism, and bi-culturalism. Finding suitable literature within CBT is difficult, and a review of widely used textbooks in the field reveals a paucity of attention in this field (Hays, 2006). It follows that training programs need to be vigilant about including references to this important area, which may involve incorporating, and integrating relevant information from other models.

Multicultural therapy and CBT have been reported to be the two most important trends in current psychotherapy (Norcross, Hedges, & Prochaska, 2002) and there is, therefore, good reason to alert CBT trainees to this body of literature, and make sure that these factors are integrated into the individualized CBT CC.

**Biological factors include an awareness of developmental stages and epidemiological factors. Comprehensive CBT training programs should ideally incorporate a focussed developmental component, considering CBT across the developmental lifespan (Reinecke & Clark, 2004).**

Protective factors, client strengths, and resilience are increasingly promoted as central to the conceptualisation (Padesky & Mooney, 2006). A “Resilience model”, identifying six areas of competence, namely, physical, spiritual, moral, emotional, social relational, and cognitive, has been developed (Padesky & Mooney, 2006). Clinicians are advised to pay attention to exploring these from the perspective of resilience, and include them in the CC and resulting treatment plan (Kuyken et al., 2009).

Categories of information such the problem list, the impact of the therapeutic relationship, and identification of Axis II personality traits are generally integrated in the training of CBT clinicians. The importance of the therapeutic relationship is increasingly emphasised in mainstream CBT and a variety of strategies such as the Therapist Schema Questionnaire (Leahy, 2001; Haarhoff, 2006; Haarhoff & Kazantzis, 2007), The Therapist Belief System (Rudd & Joiner, 1997), and the incorporation of structured, tailored self-practice/self-reflection (Bennett-Levy, et al., 2001; Haarhoff , Gibson, Flett, 2011), are promising methods which could heighten the CBT trainees’ perception of the importance of their personal contribution to this dimension.

Contrasting the quality ratings of the present study with those of the only other study considering the quality of Cognitive Therapy CC (Kuyken et al., 2005), the ratings in the present study were higher. In the previously reported study, only 44% of a sample of 115 mental health practitioners with similar professional backgrounds to the current study, achieved ratings indicating a “good enough” CBT CC, despite training on CC. The evaluation of quality, using the Fothergill and Kuyken Quality of Cognitive Therapy rating scale, showed that, on average, at least 50% of the participants in the present study had a “good enough” grasp of the CBT CC process. The quality improved for vignettes three and four where more than 61% of the participants were, at least, “good enough”, showing transfer of training superior to that of the British group.

However, disappointingly, only a minority of participants managed to achieve the highest ratings on all the quality scales, and none scored the top rating on the Comprehensive or the CBT CC rating scales. As previously discussed this appears to indicate a good grasp of the CBT model but a general failure to attend to the wider aspects of the CC as discussed in detail above.

**Limitations of the study**

Using vignettes could be seen as method somewhat distant from a “real-life” encounter with a client (Eells et al, 2005). The following benefits, however, mitigate this choice: first the researcher is able to control the information included in the narrative, making sure that similar categories of information were provided for each case vignette; secondly, the client’s diagnostic presentation could be predetermined, making comparison between vignettes easier (Eells, 2005). The vignette was selected as a pragmatic solution to elicit CCs, and as such, was to some degree, a compromise. The richness of information, obtained through sensitive and astute clinical interviewing, which includes the therapist’s awareness, and processing of his or her own emotional reactions, was lost, and thus “quality” in this study compromised to some degree.

This study is concerned with CC competency as displayed by a particular group namely trainees graduating from a Postgraduate diploma in CBT. This group is distinguished by heterogeneity and a style of training which encourages adherence to a particular model (CBT). Conclusions reached therefore, do not necessarily generalise to training programs such as Clinical Psychology, where the trainees are a homogenous group and the scientist practitioner, as opposed to the practitioner scholar mode.
of training is utilised. This is a subject for further research.

In conclusion, the present study highlights the importance of evaluating the transfer of training in core competencies such as CC. The findings showed that whilst most of the participants had a “good enough” grasp of the fundamental CBT components of the CC, they had, to some degree, failed to acknowledge the “big picture” and excluded socio-cultural, biological, protective, and interpersonal factors from their “explanatory theory” of the client’s presenting problems. The fact that perceptual gaps in the current study are mirrored in other research, points to the fact that a greater emphasis on these factors in training should be considered.

References

Bachelor, A., & Horvath, A. (1999). The References on these factors in training should be studied are mirrored in other research, the fact that perceptual gaps in the current study are mirrored in other research, points to the fact that a greater emphasis on these factors in training should be considered. Beck, J. (2005). Beck, J. A., & Dobson, K. S., & Shaw, B.F. (1993). The training of cognitive therapists: what have we learned from treatment manuals? Psychotherapy, 30, 573-577.


The participant’s formulation should be “a coherent and integrated whole. There are strong links between the elements. It seems that the participant has included all relevant information in the relevant sections. The participant has correctly used the data in the 'relevant childhood data', which has led them to make accurate and appropriate inferences in the core belief, compensatory strategies, and conditional assumption sections. The formulation is neither to verbose or too brief.”

Appendix B. Criteria required to achieve maximum quality rating on the Cognitive Behaviour Case Conceptualisation rating scale

To achieve the maximum rating of 10 the participant should provide the following information in the categories listed below:

Problem List: All problems identified by the client listed and prioritised. Indication of ability to describe problems using the five-part model, integrating interpersonal, cultural, situational problems if necessary. Ability to speculate on problems outside the client’s immediate awareness, and note problems that the client may wish to avoid e.g. suicidal, self-harm or addictive behaviours. Genetic or medical factors included if relevant.

Diagnosis: Accurate Axis I diagnosis noted. “Goodness of fit” with presenting symptoms. Axis II diagnosis noted if relevant. Participant demonstrates an awareness of personality clusters or traits if relevant. Participant specifies how these personality traits may effect course and length of treatment and therapeutic relationship.

Working Hypothesis: Presents a coherent, meaningful, parsimonious case conceptualisation which includes the identification of core beliefs about self, (others and the world of secondary importance), underlying assumptions, compensatory behaviours, precipitants and activating circumstances, relevant historical or development history (origins), and strengths. Speculation about potential obstacles in therapy and the therapeutic relationship (meaningfully linked to the key elements of the conceptualisation.

Treatment Plan: Treatment planning guided by adherence to appropriate disorder specific CBT protocol (goodness of fit of interventions). Attention to structure, use of appropriate behavioural and cognitive interventions. Individualised treatment plan based on conceptualisation. Reflection on the therapeutic relationship, potential obstacles and client factors which logically connect with the conceptualisation.

Appendix C. Summary of the four case vignettes

Vignette one

“Elizabeth was in her mid thirties, happily married, with a ten year old daughter. She presented with high anxiety relating to a fear of dental procedures, precipitated by an upcoming visit to the dentist. She also reported worrying about many different situations and often feeling overcome by “anxiety waves”. She was in full-time employment as an “image consultant”. Her developmental history included a family history of mental health problems. She had a supported, somewhat overprotected childhood. She was teased at school, and suffered from a number chronic health conditions such as hay-fever. She had underlying beliefs concerning her ‘vulnerability’ and a sense that others were often unpredictable, and that the world could be dangerous. Underlying assumptions were, a need to present herself in a favourable light, and, at the same time, keep others at a distance. Compensatory behaviours involved the regular use of alcohol, and a tendency to keep others at a distance. Diagnostically she met criteria for Generalized Anxiety Disorder, with Avoidant Dependent personality traits.”

Vignette two

“Joan, aged forty was a divorced woman, living alone, in full time employment in marketing. She presented with symptoms of depression, and reported feeling overwhelmed at work, low motivation, and a sense that her life was out of balance. She had recently sustained a running injury. Her childhood had been a fairly isolated one, and she was brought up by her paternal grandmother. There were several events in her early childhood which disrupted her primary attachments. Core beliefs were that she was “not good enough” and that others could not be trusted. Underlying assumptions involved the need to please others, and to always control her emotions so as not to get hurt. Compensatory behaviours were a tendency to over-function at
work and downplay her emotions. Diagnostically she met the criteria for Major Depressive Disorder, with some Avoidant personality traits.”

**Vignette three**

“Mary was a single woman in her late fifties, employed an administrative capacity. She had three adult sons. Her presenting problems were chronic feelings of anxiety which resulted in her worrying continuously about many things, including her health, and always expecting the worst. She hated being alone and believed she did not fit in. Her developmental history was indicative of an invalidating environment with little consistent parental nurturing. Her core beliefs were that she was vulnerable, and others, on the whole, unreliable. Her underlying assumption was related to a view that if anything went wrong it was her fault and she was responsible. Compensatory behaviours included reassurance seeking and a variety of “over- responsible” behaviours. She met the diagnostic criteria for Generalized Anxiety Disorder with Dependent personality traits.

**Vignette four**

“Belinda was in her twenties, had recently been married, and was employed as a nurse. She presented with symptoms of depression and was plagued with negative thoughts about “not measuring up to others”. Her family had a history of depression. She reported a supported childhood in a high achieving, large family. Her core beliefs were that she was “not good enough” and “inferior” to other people, whom she regarded as “critical” and “superior”. She assumed that if she made a mistake others would be disapproving or angry, and conversely, that if she excelled she was “special”. Compensatory behaviours involved the maintenance of high standards, and pushing herself to accomplish challenges. Her diagnosis was that of a Major Depression, with some Narcissistic personality traits.

**Corresponding Author:**

Dr Beverly Haarhoff
School of Psychology,
Massey University
Private Bag 102 904
North Shore Mail Centre
Auckland
New Zealand
B.A.Haarhoff@massey.ac.nz

© This material is copyright to the New Zealand Psychological Society. Publication does not necessarily reflect the views of the Society.
Evaluating the content and quality of cognitive-behavioural therapy case conceptualisations

Haarhoff, BA

2011