Exploring the collaborative development of Cognitive Analytic Therapy (CAT) Sequential Diagrammatic Reformulations (SDRs) with patients in a High Secure Hospital: Implications for understanding and managing risks.

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Introductory chapter
The focus of this thesis is to explore how patients in a high secure hospital (HSH) experience the process of developing formulations in Cognitive Analytic Therapy (CAT), and whether the use of formulation has helped them to understand and manage risk. To date there is no research exploring the utility of formulation in relation to understanding and managing risks from the perspectives of high secure patients.

**CAT and formulation**

CAT is an integrated therapeutic model informed by both cognitive-behavioural and psychoanalytic models of therapy (Ryle & Kerr, 2002). CAT was developed with the aim of combining the most robust elements of these different theoretical approaches (Ryle & Kerr, 2002). From cognitive-behavioural models the analysis and description of sequences of behavioural actions, their outcomes, and associated beliefs and emotions, and from psychoanalysis the emphasis on the role of early relational experiences in the formation of psychological structures and psychological distress, and an understanding of how relational patterns are repeated in, and can be modified through, the therapeutic relationship (Ryle & Kerr, 2002). These elements are brought together in CAT and conceptualised as reciprocal role procedures (RRPs). RRPs are the sequences of behaviour and mental processes which form our individual repertoire for relating to others, developed through our early relational experiences (Ryle, 1993). As in cognitive-behavioural approaches, RRPs stress the detailed analysis of the conscious antecedents and consequences of problematic responses (Denman, 2001), however in CAT these responses are interpersonal and are seen as eliciting particular outcomes in others (Ryle & Kerr, 2002). The initial phases of CAT aim to identify the RRPs implicated in the individual’s current difficulties, and to map these out visually in a sequential diagrammatic reformulation (SDR) and develop a narrative account of their origins in the form of a reformulation letter (Ryle & Kerr, 2002). The diagrammatic (SDR) and narrative (letter) formulations are developed using information about the person’s past and
present relationships, as well as discussion of the therapist’s experience of the client in terms of what they impose on or seek from the therapist (Ryle & Kerr, 2002). This use of the therapeutic relationship draws on the psychoanalytic concept of transference, that is the assumption that the client’s demonstration of feelings or behaviours inappropriate to the current situation are manifestations of previous relational experiences (Ryle & Kerr, 2002). Accordingly transference offers insight into the client’s expectations of relationships and is invaluable in formulating RRPs (Denman, 2001). In CAT transference is also seen as providing an opportunity to address unhelpful RRPs through recognition and non-reciprocation of RRPs and exploration of alternatives (Ryle & Kerr, 2002). Thus CAT shares with psychoanalytic approaches the use of the therapeutic relationship as a vehicle of change (Denman, 2001).

**Structure of the thesis**

Chapter one consists of a narrative review of the literature on the use of psychological formulation in forensic mental health settings. The review discusses three areas where formulation has the potential to contribute to the assessment, management and reduction of risk. These three areas are 1) the use of formulation to assess risk and treatment needs within structured risk assessment tools, 2), the use of formulation with multidisciplinary teams to enhance staff understanding of risk behaviours and associated systemic factors, and 3) the use of formulation with individual clients to enhance their understanding of risk and self-management capacity. Empirical evidence to support the utility of formulation is lacking, however the review describes the difficulties associated with empirically demonstrating the value of formulation and suggests potential directions for future research. The review highlights that the use of formulation with clients to help them to understand and self-manage their risks has received astonishingly little consideration in the literature, and no empirical
The rehabilitative importance of this is discussed and a rationale for initial exploratory research is provided.

Chapter two presents an empirical paper based upon the research study conducted as part of the author’s Doctorate in Clinical Psychology training. The research uses a social constructionist thematic analysis to explore patients’ experiences of CAT and the development of a diagrammatic formulation, particularly the perceived utility of CAT and the formulation in aiding understanding and self-management of risk. The findings suggest that participants’ ability to understand and control behaviours associated with risk was enhanced by the collaborative development and use of the CAT formulation. The findings are discussed in relation to existing theory, previous research findings, and the clinical implications for HSHs. The chapter has been written according to the author guidelines for the Psychotherapy Research journal. The scope of this journal includes process research for all psychological therapies, and research with practice implications is emphasised. Accordingly it was thought to be an appropriate target journal for a naturalistic study investigating an area which had not previously been researched and will therefore be of great interest to clinicians working in forensic mental health settings.
References


Chapter I

Narrative literature review

The use of psychological formulation in forensic mental health settings: The assessment, management, and reduction of risk.
Clients in forensic mental health settings have complex and multifaceted needs relating to both their mental health difficulties and offending behaviour. For successful recovery and rehabilitation it is vital that clinicians are able to understand the factors underlying and perpetuating harmful behaviours, and to develop intervention plans which will address these factors. Staff in forensic mental health services also need ways of understanding the extremely difficult dynamics which can develop between staff and clients and perpetuate harmful behaviour within forensic settings. Additionally clients need to be involved in the process of understanding their risks and taking responsibility for risk management. This review will discuss the contributions of formulation to each of these areas.

**Psychological Formulation**

Psychological formulation can be broadly defined as a theoretically informed hypothesis about the causes, precipitants, and maintaining influences of a person’s psychological, interpersonal, and behavioural problems, and their relationship to one another (Johnstone & Dallos, 2006; Eells, 2007). Formulation is considered integral to most therapeutic modalities, playing a central role in therapy planning and intervention (Eells, 2007), and is a core competency of practitioner psychologists (Health and Care Professions Council (HCPC), 2012). As such formulation is widely used across mental health services with individuals, couples, families, groups, and multidisciplinary teams (British Psychological Society (BPS), 2011). Due to the scope of its application the role of formulation is diverse. For example, when used with individuals the functions of formulation will differ considerably to the functions it may serve when used with multidisciplinary teams.

The unique challenges of forensic mental health settings require formulation to serve a number of specialised functions, and these will differ to each other in terms of their aims and development. These will also differ to formulations developed in non-forensic contexts. For
example, in non-forensic therapeutic interventions formulations are traditionally developed during the initial phase of therapy alongside the client to provide an account of their difficulties and indicate what will be helpful in ameliorating them (Eells, 2007). With forensic mental health clients there are a number of factors which may complicate this process. As the reduction of risk is of central importance in forensic mental health settings clients’ harmful behaviours are a necessary focus of formulation. However for a number of reasons clients may attempt to deny or minimise these behaviours, for example to present a favourable impression of themselves to clinicians who may be involved in making decisions about their release, their levels of supervision, and so on. Harmful behaviours may also be associated with extreme emotional reactions such as guilt and anger, and accordingly be defended against and avoided. Therefore in order to develop formulations which accurately reflect clients’ difficulties and behaviour clinicians cannot rely upon self-report alone.

**Aims of This Review**

The specialist applications of formulation in forensic mental health settings have not previously been comprehensively synthesised and reviewed. A literature review was conducted to examine the professional and empirical literature on the use of formulation within forensic mental health settings (the search strategy used is described in the method section). The review aimed to synthesise existing literature and discuss the potential utility of the different applications of formulation described in terms of managing and reducing risk in forensic mental health settings. The literature found was organised into three categories according to the function it was describing. These were 1) the use of formulation to assess risk and treatment needs within structured risk assessment tools, 2), the use of formulation with multidisciplinary teams to enhance staff understanding of risk behaviours and associated systemic factors, and 3) the use of formulation with individual clients to enhance their understanding of risk and self-management capacity. Empirical support for the use of
formulation with this client group was found to be lacking across all three areas, including its use in risk assessment tools. The review describes the difficulties associated with empirically demonstrating the contributions of formulation in each area, and suggests how future research should proceed. It will be argued that the use of formulation with individual clients to assist them in understanding and managing their risks has been particularly neglected in the literature, despite its potential rehabilitative utility.

Structure of the Review

The review will begin by firstly defining the terms used, before going on to describe how literature was identified. The review will then introduce the reader to the challenges associated with understanding the treatment needs of forensic mental health clients and the advantages of formulation based approaches to understanding clients’ difficulties and needs. The subsequent sections of the review will describe the specialised functions of formulation which have developed to meet the needs of forensic mental health clients and services. This will begin with the use of formulation within structured risk assessment tools, followed by the use of formulation with multidisciplinary teams to enhance risk management, and finally the use of formulation with individual clients to facilitate understanding of risk and enhance self-management capacity. Each will be discussed in terms of their strengths and limitations, the relevant existing research and the potential focus of future research.

Definition of terms

Forensic mental health settings and clients

For the purposes of this review, the term forensic mental health setting will be used to refer to services which provide care and treatment to offenders with mental health needs. Such services include high secure hospitals (HSHs), and medium and low secure units. In England
the National Health Service (NHS) provides 5,980 beds across high, medium, and low levels of security for individuals detained under the Mental Health Act (2007) who due to “dangerous, violent, or criminal propensities” require treatment under conditions of enhanced security (NHS England, 2013). The aim of these inpatient services is to address mental health difficulties, reduce the risk of harm individuals pose to others, and support recovery (NHS England, 2013). However, in addition to secure inpatient settings, a significant proportion of individuals currently under the supervision of probation services (Sirdifield, 2012) and of the prison population (Ginn, 2012) have mental health needs meeting diagnostic criteria. Accordingly literature regarding such settings was included in this review.

The difficulties of forensic mental health clients are complex and typically meet criteria for multiple ‘mental disorders’ (Taylor, 1998, cited in Johnston, 2013; Davies, Black, Bentley & Nagi, 2013; Moore & Drennan, 2013; NHS England, 2013). The term ‘mental disorder’ refers to a broad range of difficulties, categorised as ‘mental illness,’ ‘personality disorder,’ and neuro-developmental disorders (NHS England, 2013). The former two categories distinguish between acute psychological disturbances, markedly departed from the person’s usual presentation (e.g. psychotic disorders), and those which reflect more stable characteristics (e.g. personality disorders) (Johnstone, 2013). The latter category refers to cognitive difficulties such as learning disability and autistic spectrum disorders. In NHS mental health services ‘mental disorders’ are diagnosed on the basis of either of two psychiatric classification systems; the Diagnostic and Statistical Manual of Mental Disorders 5th Edition (DSM-5) (American Psychiatric Association, 2013) and the International Classification of Diseases 10th Edition (ICD-10) (World Health Organisation, 1992). For the purposes of this review the term mental health difficulties will be used rather than ‘mental disorder’ or psychiatric diagnoses. The latter will however be referred to in a discussion of the limitations of diagnostic approaches in meeting the needs of this complex client group.
Methodology

Relevant literature was identified by searching the PsychInfo, Web of Science, and Scopus databases, using search terms identified with the subject terms thesaurus facility for the following concepts; formulation, risk, and individuals who pose a risk of harm to others (see table 1.1).

Inclusion criteria

The reviewed literature was limited to adult populations, published in the last 15 years, and written in English. The time frame of 15 years was deemed far reaching enough to capture changes in the use of formulation without including overly dated literature. Abstracts were reviewed for relevance. All literature describing the role of psychological formulation in working with offenders with mental health difficulties was included regardless of service context. The rationale for this was the overlap in the needs of clients (in low and medium secure units, HSHs, prisons, and those under probation services), and a lack of service specific literature.

Exclusion criteria

Literature focusing upon physical disability (for example deaf offenders), risk to self, and on working with victims of crime were excluded. Literature which did not focus specifically on the role of formulation was excluded, for example papers which focused upon the development of theoretical models or interventions.
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Search date 27.01.14

Following the removal of duplicates, seventeen journal articles, two books, and nine additional book chapters were identified which focused specifically upon formulation with individuals who pose a risk of harm to others. The seventeen journal articles consisted of eleven discussion papers, four case studies, a staff focus group study, and an evaluation of formulation training delivered to offender managers. References were checked for additional sources. Whilst no articles were excluded on the basis of researcher bias, the researcher had
an awareness of two further discussion papers from a professional journal which were relevant to the review and therefore included (Shannon, 2009; Mitzman, 2010).

**Rationale for undertaking a narrative review**

Due to the dearth of empirical literature and the broad nature of the review topic a narrative approach was used to synthesise the literature. Narrative reviews provide comprehensive coverage of a wide range of issues within a given topic, as opposed to systematic reviews which rigorously appraise the validity and inferences of a focused group of studies (Collins & Fauser, 2004). Systematic reviews include and compare studies using the same design and methodology (Collins & Fauser, 2004) and are unsuitable for synthesising heterogeneous sources of literature. Narrative reviews provide the reader with background knowledge, and describe the state of evolving concepts and controversies related to a topic (Collins & Fauser, 2004). As such a narrative approach was ideal for providing a comprehensive overview of the different uses of formulation within forensic mental health settings, drawing upon the wide range of literature sources retrieved by the search strategy.
Literature synthesis

The challenges of understanding the treatment needs of forensic mental health clients

To understand the strengths of formulating individual cases it is first necessary to describe the challenges associated with identifying suitable interventions for forensic mental health clients. Standardised interventions are available for a wide range of difficulties and can be identified on the basis of psychiatric diagnosis or offence type. However standardised approaches may be limited in their ability to meet the needs of forensic mental health clients. The limitations of using standardised approaches with this client group will be described, followed by the potential advantages of formulation.

The limitations of using standardised approaches with forensic mental health clients

Allocating individuals to particular interventions (therapy or otherwise) without a formulation relies upon the categorisation of individuals in terms of psychiatric diagnosis or offence type, and the selection of an intervention which has the best available research evidence for that particular client group (Ward, Nathan, Drake, Lee & Pathe, 2000; Hart, Sturmey, Logan & McMurrnan, 2011). Interventions are usually standardised and follow a treatment manual (Ward et al, 2000). This approach has the advantage of saving clinicians the lengthy process of developing individual formulations (Ward et al, 2000), and has proved highly effective for common mental health problems such as phobias (Hart et al, 2011). However it relies upon the assumption that individuals’ problems, the underlying mechanisms, and their treatment needs will be the same by virtue of their diagnosis or offence type (Ward et al, 2000; Jones, 2010). The success of this approach can be limited in forensic mental health settings for the following reasons:
• High rates of comorbidity

Individuals using forensic mental health settings commonly meet diagnostic criteria for multiple disorders (Taylor, 1998, cited in Johnston, 2013; Davies et al, 2013; Moore & Drennan, 2013). Accordingly there may be multiple standardised treatments implicated which the clinician must either choose between or decide in what order to provide them all (Sturmey, 2009). However Ward et al (2000) state that attempting to treat difficulties separately as distinct ‘disorders’ can overlook interactions between problems and their shared mechanisms.

• Causal mechanisms underlying offence typologies may differ

Risk behaviours may not maintain fidelity to one type of conduct (Johnstone, 2013), making it difficult to allocate individuals to standardised interventions based upon offence typology. Even when presented with a group of individuals whose behaviour does appear consistent with an offence typology it may be problematic to assume that the mechanisms underlying their behaviour are the same for all of these individuals. For example, a study by Daffern, Howells and Ogloff (2007) found that the functions of aggressive behaviour in offenders with mental health difficulties differed from one individual to another. Factors such as anger may be important causal influences for some individuals but irrelevant to others (Howells, 2011). Thus despite similarities in explicit presenting behaviour interventions for each individual may need to address different causal mechanisms.

• Standardised interventions may be implicated for both mental health difficulties and offending behaviour

Standardised treatments may be available for both an individual’s mental health difficulties and their offending behaviour. Whilst these could be completed in succession Hague and
Webster (2013) argue that such an approach draws an arbitrary distinction between mental health and offending behaviour, and ignores interactions between the two.

- Standardised interventions may not be available

For highly complex or unusual client groups there may be no empirically supported interventions available (Ward et al 2000; Eells & Lombart, 2011). For example poorly understood offender groups such as violent female offenders (Logan & Blackburn, 2009), personality disordered sexual offenders (Jones, 2009), and autistic offenders (Gunasekaran, 2012).

**The advantages of using formulation as an alternative to standardised approaches**

The explanatory nature of formulation and its theoretical flexibility are of considerable use in developing treatment plans for forensic mental health clients. Formulation is concerned with identifying the causes, precipitants and maintaining influences of a person’s difficulties (Johnstone & Dallos, 2006; Eells, 2007), rather than categorising them, and can therefore conceptualise any number of difficulties, irrespective of how these are classified in terms of diagnosis or offence type. There are numerous theoretical frameworks on which formulations can draw to arrive at a rich and cohesive account of multiple difficulties (Sturmey, 2009; Jones, 2010; Moore & Drennan, 2013) and the interactions between them. Examples of theoretical frameworks include psychodynamic, cognitive-behavioural, systemic, and integrative approaches (Johnstone & Dallos, 2006). Within these it is possible to distinguish further theoretical subcategories, for example disorder specific cognitive-behavioural theories and theories of violent and sexual offending.

Conceptualising difficulties cohesively (rather than as isolated disorders or behaviours) provides a rationale for interventions which will comprehensively address mental health
difficulties and risk related behaviour (Ward et al, 2000). In this respect, whilst developing individual formulations can be a lengthy process, formulation may make treatment more efficient by identifying interventions which address numerous treatment needs, thus avoiding allocation to multiple standardised treatments. Theoretical flexibility also enables formulations to conceptualise unusual difficulties which lack specific theoretical frameworks or standardised interventions. For example, clinicians can draw upon theories which are not disorder or behaviour specific, or upon theories developed for problems which share commonalities with the presenting problems of the individual.

The next section of the review will describe the use of formulation within structured professional judgement (SPJ) risk assessment tools. SPJs capitalise upon the explanatory nature of formulation and its capacity to integrate understandings of both mental health difficulties and offending behaviour. The use of SPJs is recommended by the Department of Health (2007) as opposed to actuarial risk assessment tools or reliance upon clinical judgement. Accordingly it is increasingly common for patients in NHS secure settings to have formulations developed, outside of therapy, for the purpose of guiding treatment planning in terms of risk management and interventions. This will now be described in more detail.

The use of formulation to assess risk and treatment needs within structured risk assessment tools

Clinicians in mental health settings have frequently been required to make judgements about the level of risk a person poses to themselves and others (Thomas-Peter & Howells, 1996). However, in forensic mental health settings clinicians must also determine how they will reduce risk through treatment. Since a number of follow-up studies brought the accuracy of clinicians’ risk judgements into question in the 1970s (for example Cocozza & Steadman,
1976; Ennis & Litwack, 1974) a range of risk assessment tools have been developed to aid clinicians in making judgements about risk and ensure consistency and transparency (Cooke & Michie, 2013). These fall into two categories; actuarial risk assessment instruments and structured professional judgement tools (Department of Health, 2007; Cooke & Michie, 2013). The former uses a statistical approach to generate probability estimates for reoffending whilst the latter uses formulation to develop an explanatory model of behaviour to inform risk management decisions. Each will be described fully in turn.

**Actuarial risk assessment instruments**

With the aim of reducing bias and inconsistency actuarial risk assessment instruments (ARAI) specify which factors are considered by clinicians in their assessment of risk of a particular offence, e.g. sexual violence. The factors specified are based upon study samples which measure characteristics of offenders, for example their age and marital status, to identify which factors are present in those who go on to reoffend (Damatteo, Batastini, Foster & Hunt, 2010). The purpose of ARAIs is to predict the likelihood of the specified behaviour occurring in future (Cooke & Michie, 2013) based upon the number of factors the client shares in common with reoffenders in the study sample (Hart & Logan, 2011; Hilton, Harris, & Rice, 2006). This prediction is quantified as a numeric probability estimate, for example a 36% chance of reoffending over the next 15 years (Cooke & Michie, 2013).

These estimates have consistently been shown in meta-analytic studies to be more accurate, albeit modestly, than estimates arrived at without the use of an ARAI, i.e. professional opinion (Heilbrun, Yasuhara & Shah, 2010). However Cooke & Michie (2013) caution that ARAI estimates can be misleading because they assume the likelihood of an individual reoffending can be determined from statistical information about a group (nomothetic data). This assumption is often defended through comparison with life insurance policies. However
life insurance policies do not attempt to predict the deaths of particular individuals and instead achieve profit by predicting the proportion of insured lives that will end within a particular time period (Cooke & Michie, 2013). Accordingly, the predictions made by ARAIs are akin to life insurers attempting to predict the death of an individual policy holder, and this would of course be impossible to do with precision. Likewise the behaviour of an individual cannot be predicted with precision based upon the properties of a group.

A further shortcoming of statistically based probability estimates is they provide little understanding of why an individual poses the estimated level of risk, under what circumstances, and what can be done to prevent it (Hart & Logan, 2011; Logan, Nathan & Brown, 2011). Accordingly they provide little support to clinicians tasked with developing intervention plans to reduce risk. Without an explanatory, idiosyncratic understanding of the role risk factors play in increasing an individual’s risk the assessor must rely on a standardised approach to intervention planning, which as discussed in the previous section is associated with a number of limitations when applied to forensic mental health clients. Structured professional judgement tools were developed in recognition of the limitations of ARAIs (Lewis & Doyle, 2009) and will now be discussed.

**Structured professional judgement tools**

Structured professional judgement (SPJ) tools, as with ARAIs, specify risk and protective factors for clinicians to consider, thus reducing bias and inconsistency. Unlike ARAIs these factors are identified from reviews of the existing research literature rather than individual study samples (Dematteo et al, 2010; Heilbrun et al, 2010; Doyle & Logan, 2012). Clinicians assess the presence of these factors based upon extensive information gathering, including information from the person being assessed (interviews and observations), and information from collateral sources (interviews or information from past victims, family members, other
professionals and staff, psychometric assessment, and reviews of criminal justice, healthcare and education reports) (Douglas, Hart, Webster & Belfrage, 2013). Unlike ARAIs risk factors are not scored to generate a numeric probability estimate for reoffending. Instead the assessor must consider whether and how each factor is relevant to the individual’s risk. Some factors may be present but not associated with increased risk for that individual. For example the person may be acutely psychotic, but if they will not leave their room during these times then their risk of harming others may reduce. Formulation is used to integrate present and relevant risk and protective factors into an idiosyncratic explanatory model of past harmful behaviour (Green, 2008; Doyle & Logan, 2012), drawing upon psychological theories, for example theoretical models of violence and psychosis, to make sense of these factors and their interactions. Based upon the formulation hypotheses are generated about future scenarios in which risk behaviour could potentially recur across a range of situations and settings (Green, 2008; Doyle & Logan, 2012). This informs the planning of strategies for managing risk, and the identification of interventions to reduce risk (Logan, Nathan & Brown, 2011; Douglas, Blanchard, & Hendry, 2013; Haque & Webster, 2013; McMurran & Taylor, 2013).

In terms of their predictive efficacy, the risk and protective factors specified by SPJs have demonstrated comparable predictive accuracy to ARAIs when used to generate numeric probability estimates (Heilbrun et al, 2010). However this is not their intended usage; their strength is their ability to formulate an understanding of an individual’s behaviour which can inform the development of interventions that are both effective and proportionate (Cooke & Michie, 2013). As such they provide clinicians with the most effective means currently available for understanding risk and identifying interventions to reduce risk (Department of Health, 2007). However they are not without their limitations. For example because formulations are developed by the assessor the client can have little ownership or
understanding of them. Accordingly the formulation may be of little benefit in helping clients to understand their risks and take responsibility for their management. Furthermore SPJs have been fiercely criticised by allies of the actuarial approach for their reliance upon clinical judgement in the formulation phase (see Hilton et al, 2006). Indeed their ability to develop effective interventions is dependent upon the quality of the formulation developed within the assessment.

How the quality of formulations can be ensured and evaluated has therefore received considerable attention in the forensic literature. The reliability and accuracy of formulation were most commonly focused upon (Lewis & Doyle, 2009; Dematteo et al, 2010; Jones, 2010; Hart et al, 2011; Sturmey & McMurran, 2011; Davies et al, 2013). Reliability refers to the extent to which clinicians agree on the adequacy of a formulation (Hart et al, 2011), and accuracy refers to the ability of the formulation to predict future behaviour (Eeels & Lombart, 2011). However despite much discussion there has been little progress in the empirical investigation of accuracy and reliability. This is perhaps due to the difficulties associated with demonstrating predictive accuracy, and eliminating inconsistency in formulation. These difficulties will be discussed in more detail in turn.

- Accuracy

In secure settings the risk behaviour and the hypothesised scenarios where its likelihood is anticipated to increase may not be evident or possible. For example if the individual is deemed to be a high risk to female intimate partners and he is currently detained in a secure, male unit. Accordingly, the accuracy of the formulation and its hypotheses about risk would be difficult to test (Hart et al, 2011). One approach to demonstrating accuracy may be to follow-up offenders longitudinally and compare any reoffending to the risk scenarios predicted in their SPJ assessment. However, as the purpose of the SPJ
formulation is to develop effective risk management plans and interventions, the original risk behaviour may have been controlled or treated, and accordingly not recur. Assessing the accuracy of formulation is therefore not straightforward. The absence of anticipated risk scenarios over time could reflect effective treatment, or it could mean that the hypotheses were inaccurate.

- Reliability

Inconsistency in formulation is unsurprising given the absence of systematic, empirically supported approaches to teaching formulation skills (Hart et al, 2011; Davies et al, 2013; Minoudis et al, 2013). In response to this a number of authors (for example Logan & Johnstone, 2010; Hart et al, 2011; McMurran, Logan & Hart, 2012) have proposed criteria to aid formulation development and evaluation, and the development of theory specific, consensus approaches to teaching formulation skills has been advocated as a focus of future research (Hart et al, 2011). However given that a strength of individual formulation is its scope to draw upon multiple theories to conceptulise multifaceted and unusual difficulties (Jones, 2010; Mumma, 2011), theory specific consensus approaches may constrain its ability to integrate theories to understand the risks and needs of particularly complex individuals. In order to maintain this strength it may therefore be preferable for research to focus upon developing training in generic formulation skills.

In addition to addressing the issues of accuracy and reliability research has yet to demonstrate that formulation based risk assessment and intervention plans lead to superior outcomes than those derived from ARAIs or standardised treatment approaches (Ghaderi, 2011; Hart et al, 2011). In fact this question has been somewhat neglected in the forensic mental health literature (Lewis & Doyle, 2009; Davies et al, 2013). This may reflect the difficulties associated with demonstrating a relationship between formulation and outcomes such as
reduced risk. For example the availability and quality of interventions will influence outcomes. The indirect relationship between formulation and outcome means that research attempting to show a link between the two may actually tell us very little about the utility of formulation in assessing risk and identifying suitable interventions. A more useful research focus may be the exploration of clinicians’ views on the benefits of formulation in the risk assessment and treatment planning process. Such research may help to empirically validate the assumption that formulation enhances risk assessment and intervention planning.

This section of the review has described the integral role that formulation has come to play in aiding clinicians to understand risk, make decisions about how it should be managed and identify interventions to reduce risk. The next section will discuss the use of formulations with multidisciplinary teams to aid them in understanding iatrogenic factors which may perpetuate risk behaviours. These formulations are sometimes referred to as systemic or contextual formulations.

**The use of formulation with multidisciplinary teams to enhance staff understanding of risk behaviours and associated systemic factors**

Systemic formulations conceptualise problems within systems and relationships rather than individuals (Dallos & Stedmon, 2006). This approach has traditionally been used in working with families to understand how difficulties are created and maintained through interactions and communication between family members (Dallos & Stedmon, 2006). However this way of viewing problems can also be applied to understanding the difficulties of individuals within systems other than families, for example mental health staff teams and clients. When working with families, systemic formulation has traditionally been seen as a dynamic and recursive process of hypothesising (Dallos & Stedmon, 2006). The function of these hypotheses is to provide a platform for engaging the family in exploration, eliciting new
information and stimulating positive change (Dallos & Stedmon, 2006). As such a formulation does not develop as a discrete entity, and is instead continually developing and intertwined with therapy (Dallos & Stedmon, 2006). However, when working with difficulties that have manifested between staff and service users, there is a need for a concrete and tangible formulation which can be kept in the individual’s file and accessed by staff to inform care. An ongoing therapeutic dialogue between all members of the system is a less feasible means of initiating change. Accordingly, rather than a traditional systemic family therapy approach, different theoretical approaches have been applied to developing formulations of mental health systems, for example CAT (Ryle & Kerr, 2002) and CBT (Newman-Taylor & Sambrook, 2012).

Staff in forensic mental health settings are tasked with managing individuals who are a risk to those around them. These risk behaviours can occur within the care setting and can be unwittingly exacerbated by staff members (Shannon, 2009). Accordingly harmful behaviour can be the result of iatrogenic relational processes. By providing an explanation of causal mechanisms and maintaining factors, formulation aims to highlight how relational processes between staff and clients have become problematic. As such the use of formulation with staff teams emphasises the development of staff insight into processes which may previously have been outside of conscious awareness, defended against, poorly understood, or emotionally overwhelming. Such factors include the phenomena of transference and countertransference. Strasburger (2001, cited in Pollock & Stowell-Smith, 2006) describes common countertransference responses of professionals working with forensic patients. These include extreme and difficult emotional states such as fear of assault or harm, helplessness and incompetence, hatred, and denial of risk. Whilst the latter has obvious

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1 Transference refers to the emotions which the client projects onto professionals, usually unconsciously transferred from previous relationships, and countertransference refers to professionals’ emotional reactions to the client’s projections (Lemma, 2003).
implications for risk management, other emotional responses can indirectly increase harmful behaviour by reducing the capacity of staff to respond therapeutically to clients (Ryle & Kerr, 2002). For example staff may instead respond in ways which are experienced by the client as abusive and neglectful (Mitzman, 2010). These responses can in turn exacerbate risk behaviours such as violence towards others (Shannon, 2009). Staff understandings of these processes can be complicated further when a client elicits polarised emotional reactions in staff and as a result the team find themselves split in relation to the individual (Mitzman, 2010). Such splits may impact upon the ability of the team to respond consistently, which again may exacerbate harmful behaviour and compromise effective team management of risks. By mapping out relationships between staff and the client (Newman-Taylor & Sambrook, 2012) formulation can be used to make sense of countertransference feelings (Christofides, Johnstone & Musa, 2011), the behavioural responses these feelings elicit in staff, and how these are experienced and responded to by the client (Mitzman, 2010). It has been proposed that the provision of this information enables staff to change their responses to clients (Ryle & Kerr, 2002) and therefore break relational patterns which maintain or exacerbate harmful behaviours.

There is to date no research conducted in forensic mental health settings demonstrating that systemic formulation can lead to more effective management of risk and a reduction in harmful behaviour. Research conducted in non-forensic settings has demonstrated a decrease in client physical and verbal aggression following the development of a formulation with staff members (Ingham, 2011). The causal mechanisms of this reduction are not clear. However staff perceptions of the severity of the client’s behaviours were found to decrease after formulation, and although no qualitative analysis was conducted staff reported that they had a better understanding of the client and how to manage his problems. Other non-forensic studies have demonstrated an increase in staff tolerance and empathy towards clients.
following formulation (Summers, 2006; Newman-Taylor & Sambrook, 2012). Accordingly the new understanding provided by formulation may result in staff relating more empathetically to clients (which in turn may lead to a reduction in client aggressive behaviour). Other changes which appear to be important in non-forensic studies include improvements in staff wellbeing. Summers (2006) and Newman-Taylor and Sambrook (2012) found that staff perceived formulation to bring together team members and ideas, decrease emotional exhaustion, improve staff satisfaction and personal accomplishment, and provide opportunities for staff to link practice and theory. Whilst these findings have some promising implications, they constitute small, naturalistic investigations, which used different methodologies, measurement tools and theoretical approaches to formulation. Additionally some findings were contradictory. For example unlike Ingham (2011), Newman-Taylor and Sambrook (2012) showed an increase in aggression towards staff following formulation, although aggression towards other clients decreased. Generalising these findings to forensic mental health settings would also require caution, as the severity of risk behaviours and the potential for extreme countertransference responses to forensic clients may affect how formulation is received by staff. Due to the range of potential change mechanisms suggested by the above mentioned studies, and the possibility that others may not have been recognised due to the measurement tools used, qualitative research may be preferable in the first instance. The findings of qualitative investigations would then inform the mediating factors measured in subsequent quantitative studies, or example measures of staff wellbeing.

Research is also needed to inform how formulations are developed when used with teams, for example whether a consultancy approach is used or whether the emphasis is placed upon the team to generate formulations. For example Summers (2006), Ingham, Clarke and James (2008), and Ingham (2011) describe the provision of staff training in formulation and the subsequent development of formulations within team meetings. This level of staff
involvement in the development of formulations may mean that they are more likely to be accepted by the team. Furthermore the acquisition of psychological knowledge and skills which can be applied to understanding dynamics with other clients may be enhanced due to the onus on staff training and responsibility for formulation development. Davies et al (2013) highlight how staff may find the experience of systemic formulation uncomfortable and exposing, and accordingly it will be important for future research to inform how formulations can be developed whilst minimising discomfort and the potential consequences of this, for example staff disengagement with attempts to understand and modify problematic dynamics. Research focusing on staff member’s experiences of formulation will again therefore be crucial. Finally, staff member’s perceptions of the utility of different therapeutic modalities in developing systemic formulations (for example CBT and CAT) would also inform how formulations can be most usefully used with teams.

Two applications of formulation have now been described. Despite their invaluable contributions to forensic mental health care in each client involvement may be minimal or not at all. SPJ assessments seek to aid clinicians in risk planning and intervention, and in this sense can be thought of as being developed by clinicians for clinicians. In systemic formulation, the client may be interviewed or observed, but it is the clinician and the staff team who develop the formulation with the aim of changing staff behaviour (improvements in client behaviour occur indirectly). As mentioned at the outset of the review, developing formulations collaboratively with forensic mental health client’s can be complicated by the issue of relying upon clients’ self report. However client involvement is important because if offenders are to be successfully rehabilitated they need to have an understanding of their own risks and be able to engage with and take responsibility for risk management. The next section will discuss the development and use of formulation with forensic mental health clients, and one particular theoretical approach (Cognitive Analytic Therapy) which appears
particularly useful in overcoming a number of challenges associated with developing formulations with this client group.

**Using formulation with individual clients to enhance their understanding of risk and self-management capacity**

As noted at the outset of this review, formulation has traditionally been used to identify what interventions will be useful within therapy (Eells, 2007). This section of the review however describes the use of formulation within therapy to enhance clients’ ability to self-manage risk. There are two proposed mechanisms whereby risk management is enhanced through formulation. Firstly, by identifying the mechanisms underlying offending behaviour and the factors which increase its likelihood the client develops their ability to acknowledge predictable recurrences of behaviour and to mitigate against these (Pollock, 2006). Secondly, the process of developing a formulation enhances self-reflective deficits associated with harmful behaviour.

The first proposed mechanism is relatively straightforward and shares much in common with the proposed benefits of developing formulations with staff teams. Clients develop an awareness of the causes of their harmful behaviour, and are therefore informed to manage risk more effectively. Additionally, due to their involvement in developing this account they are more likely accept the risks proposed and the need for risk management measures (Jones, 2010; Logan & Johnstone, 2010; Moore & Drennan, 2013).

The second proposed mechanism was discussed particularly by the Cognitive Analytic Therapy (CAT) literature. CAT is a relational therapy, which emphasises the use of narrative and diagrammatic formulations. The potential value of this will be described below, however this section will firstly outline the self-reflective deficits associated with increased risk, before going on to discuss how formulation is proposed to contribute to their remediation.
Deficits in mentalisation

Mentalisation is a term used to refer to the ability to identify mental states (including thoughts, beliefs, and emotions) in the self and others, to distinguish between one’s own mental states and those of others, and to interpret one’s own and others behaviour as meaningful and based upon internal states (Yakely & Adshead, 2013). This ability is developed in childhood within a secure attachment relationship (Yakely & Adshead, 2013). Early traumatic experiences such as abuse and neglect are highly prevalent in clients in forensic mental health settings (Shannon, 2009; Mitzman, 2010; Annesley & Sheldon, 2012; Yakely & Adshead, 2013). Accordingly, many individuals will not have developed secure attachments to caregivers, and as adults demonstrate impoverished self-reflective abilities (Shannon, 2009). According to Shannon (2009) this severely limits individuals’ capabilities to contribute to understanding and managing their own risks. In addition these reflective deficits may also be risk factors in themselves. Yakely and Adshead (2013) state that adults with impaired mentalisation processes show poor affect regulation, impulsive behaviour, and a lack of empathy for others.

Formulation and the development of mentalisation skills

The process of developing and reworking a formulation with a therapist necessitates exploration of inter- and intra-personal experience (Bateman et al, 2007), specifically the cognitive, emotional and behavioural tendencies associated with past offences (Pollock, 2006). Accordingly the client is socialised into recognising mind states. In CAT the use of a diagrammatic formulation as a reflective tool for tracking current thoughts, feelings, and behaviours is a key component of therapy (Pollock & Stowell-Smith, 2006; Withers, 2010). Once developed the diagrammatic formulation continues to aid observation and monitoring of one’s mind states in the here and now, and facilitates continued practice. According to
Pollock (2006) the continued use of the formulation in this way gradually enhances clients’ ability to reflect upon and self-regulate their own cognitive processes (Pollock, 2006). Over time these skills are internalised, and the formulation is no longer needed as an externalised reflective tool.

**The proposed advantages of using CAT with forensic mental health clients**

Psychodynamic and cognitive-behavioural therapies have dominated forensic psychotherapy (Pollock & Stowell-Smith, 2006). Formulation from these two approaches will briefly be described before discussing the proposed advantages of use CAT formulation with this client group.

The principle theoretical rationale underpinning cognitive-behavioural models is that the interaction of feelings and behaviour is dependent upon the interpretations (cognitions) we make (Beck, 1976). Psychological difficulties and distress are therefore seen as resulting from an individual’s personal style of cognitive processing (Llewellyn & Cooper, 2004; Dudley & Kuyken, 2006), which is thought to be determined by underlying core beliefs developed in early life (Toner, 2012). Formulations in CBT are developed collaboratively (Dudley & Kuyken, 2006; Toner, 2012) and provide a descriptive account of the cognitive processes implicated in the client’s difficulties and the reinforcing relationships between these, emotions and behaviour (Toner, 2012). CBT formulations may also provide an account of the development of core beliefs and cognitive processing style (Toner, 2012). A key function of formulation in CBT is to guide intervention planning (Dudley & Kuyken, 2006; Toner, 2012), however the formulation also plays a role in socialising the client to the CBT model by demonstrating the applicability of its principles to the client’s difficulties (Toner, 2012). A final feature of formulation in CBT is that, in accordance with the bulk of
the evidence base for CBT interventions, it tends to be informed by disorder specific models (Dudley & Kuyken, 2006).

There are a diversity of different schools of psychodynamic theory, however Lemma (2003) discerns a number of fundamental commonalities. The principle assumption of all psychodynamic approaches is that individuals have an internal world, of which some is consciously accessible and some is outside conscious awareness (Lemma, 2003; Smith & Garforth, 2012). Painful feelings outside of conscious awareness and attempts to keep these feelings hidden are seen as the root of psychological distress and disturbance. Defences (ways of thinking, feeling or behaving) are developed with the aim of protecting individuals from emotional pain or conflict, however because defences operate outside of conscious awareness they remain unrevised even when unsuccessful (Leiper, 2006). Psychodynamic approaches trace hidden painful feelings back to early relationships (Lemma, 2003). It is assumed that these internalised relational experiences and their associated hidden feelings can be made sense of by the therapist through their interpretations of transference and countertransference (Smith & Garforth, 2012). A psychodynamic formulation is the therapist’s attempt to interpret and explain a person’s difficulties and the unconscious feelings and processes which maintain them (Smith & Garforth, 2012). The process of formulation is analogous to a process of detective work whereby the therapist interprets surface level material to infer the underlying intentions outside of the client’s conscious awareness (Leiper, 2006). Accordingly formulation in psychodynamic therapy is less collaborative than in cognitive-behavioural approaches. The function of the psychodynamic formulation is to provide the client with insight into previously warded off thoughts and feelings and enhance their awareness of unhelpful patterns of managing internal conflict, so that new strategies can be developed (Leiper, 2006).
When therapists draw upon multiple therapeutic models to formulate a person’s difficulties this is referred to as an integrative formulation. Whilst this can be necessary to adequately account for an individual’s difficulties it can also be criticised for lacking technical and epistemological coherence and reliability (Dallos, Wright, Stedmon & Johnstone, 2006). CAT is an example of an approach which integrates models by developing a new, coherent and standardised model (Dallos, Wright, Stedmon & Johnstone, 2006). As in CBT, CAT formulations systematically describe chains of mental processes and actions, however unlike CBT these sequences relate to interpersonal patterns rather than intra-individual phenomena (Denman, 2001). This interpersonal focus is crucial when working with clients who have harmed others, as such offending is ultimately relational (Mitzman, 2010). To formulate risk it is therefore necessary to understand the client’s repertoire for relating to others and the relationship which was enacted with their victim (Mitzman, 2010). The interpersonal patterns, or reciprocal role procedures (RRPs), identified in CAT incorporate psychodynamic ideas of transference and countertransference by describing what is enacted by the client and what response this role elicits in others. In CAT however transference and countertransference are used descriptively, rather than interpretively as they are in psychodynamic approaches (Denman, 2001). This enables joint exploration and interpretation, and collaborative development of the formulation (Denman, 2001). Similarly to CBT, a detailed formulation is developed on paper for use with the client (Denman, 2001) however unlike CBT, disorder specific models are less prevalent in CAT, meaning flexibility to capture multiple and unusual difficulties is more readily afforded.

As a model of formulation CAT has a number of additional strengths when used with this client group. As mentioned earlier in the review, forensic mental health clients may not engage honestly in the process of formulation due to a desire to present a favourable impression of themselves. Issues relating to harmful behaviour may also be defended
against. CAT formulations aim to capture the key reciprocal patterns of behaviour associated with the individual’s offending against others. To identify these the therapist can draw upon collateral sources of information. For example the perspectives of victims, staff, and family members can provide rich additional material to inform the reciprocal re-enactments hypothesised between the offender and the victim. A further feature of CAT which makes it ideal for overcoming difficulties associated with the potential unreliability of self-report is its use of transference and countertransference. CAT assumes that maladaptive interpersonal patterns (including those evident in offending behaviour) will emerge in the relationship with the therapist and can therefore be understood through transference and countertransference responses (Bennett, 1995). Accordingly in addition to the client’s account the therapist uses their experience of the client and the experiences of others (informed by collateral information) to inform hypotheses about the patterns of relating associated with their harmful behaviour. As a result CAT formulations can be used to introduce topics which clients may have sought to avoid. By providing an understanding of the patterns and functions of relating to victims CAT can also help clients to monitor offence paralleling behaviours and understand these processes with the therapist. As such CAT formulations are well suited to addressing behaviours which may be absent in the secure setting.

The proposed benefits of developing and using formulations with individuals, CAT or otherwise, have not however been empirically demonstrated in forensic mental health settings. To date exploration of individuals’ understandings of their potential risks and how individuals develop the capacity to self-manage risk have been neglected by researchers (Green, 2008; Davies et al, 2013). A number of areas require investigation. The CAT literature mentioned above emphasises the importance of awareness of internal mental processes and causes of behaviour in the self-management of risk, however the role of insight into mental processes (or a lack of it) in offending behaviour is highlighted to differing
extents by different theoretical perspectives. For example, decision theory emphasises the role of conscious decisions which determine that offending will meet needs and result in acceptable consequences (Doyle & Logan, 2012; Douglas, Hart, et al.; 2013). In contrast psychodynamic approaches emphasise the role of unconscious meaning in acts of harm to others (Yakeley & Adshead, 2013). Whether an increased awareness of mental states and cognitive processes enhances understanding of risk and risk management capacity in offenders has not to date been empirically investigated, nor has the impact of formulation upon these capacities. Research exploring the perceived value of the formulation to individuals may be a useful starting point in establishing whether formulation facilitates understanding and self-management of risk, and whether developing an awareness of mental states contributes to this process. If evidence is found to support this, subsequent research may seek to explore the relative efficacy of different therapeutic modalities in enhancing these abilities.

As therapies of all theoretical perspectives involve self-reflection, all may be equally effective, however therapy specific tools and processes such as the use of diagrammatic formulation in CAT may prove to be particularly beneficial in developing mentalisation skills. It will also be important for research to explore how formulations of harmful behaviour can be developed and used with clients in ways which feel tolerable and acceptable to them. The potential incorporation of collateral information and consideration of client-therapist enactments which the client is defended against may be particularly challenging for clients. Davies et al (2013) suggest that whilst positive experiences of formulation may be enlightening and increase understanding, negative experiences may result in an unwillingness to share information with staff in future, and this is likely to compromise rather than enhance risk management. Accordingly it will be important to understand which factors enable clients to cope with exploration of such difficult topics.
Discussion

This review has described the potential contributions of formulation to a number of aspects of patient care in forensic mental health settings. These functions offer distinct but complementary contributions to risk assessment, management and intervention. Firstly clinicians in forensic mental health settings are faced with making sense of the difficulties of some of the most complex and challenging individuals in mental health services. The development of formulation based SPJ risk assessment tools has provided a means of developing explanatory models of behaviour in as transparent and rigorous a manner as currently possible. SPJ tools have placed formulation at the heart of risk assessment and treatment planning, however research has yet to empirically demonstrate its value and questions remain about its predictive accuracy and how to train clinicians to develop formulations. These latter two issues have received considerable attention in the literature and there is an impetus to begin to address these questions empirically. Secondly contextual or systemic formulation can play an integral role in managing difficult staff-client dynamics and the resulting violent (or other problematic behaviour) of clients (Shannon, 2009), as well as ensuring consistent management and treatment goals within staff teams (Mitzman, 2010). However the use of systemic or contextual formulations with staff teams requires empirical exploration in forensic mental health settings. Qualitative research is needed to understand the factors mediating change following systemic formulation, and quantitative data is needed to demonstrate whether significant reductions in incidents of harmful behaviour occur. Thirdly, it has been proposed that the use of formulation with individual clients can help them to understand risk and facilitate the development of skills associated with reduced risk. This proposed function has received astonishingly little theoretical attention and no empirical investigation. This is particularly surprising given its perceived rehabilitative importance.
For example, the Department of Health (2007) highlights the importance of client involvement in understanding risk, and as stated at the outset of this review, the roles of NHS secure mental health settings include the reduction of risk and promotion of service user recovery (NHS England, 2013). Service users of non-forensic services have stated that meaningful involvement in understanding and managing risk was needed in order for them to see the benefits of risk management and assume responsibility for it (Sheldon, 2011). Furthermore, this review has discussed the potential benefits of formulation over and above the development of risk awareness in clients, namely the development of skills which may contribute to risk reduction and enhanced self-management capacity. Theoretically, it seems that collaboratively developing formulations with clients provides a means of engaging them in thinking about their risks because the account developed is recognisable to them (Jones, 2010; Logan & Johnstone, 2010; Moore & Drennan, 2013). However, with forensic clients there may be much greater emphasis on the inclusion of collateral information or interpersonal processes which are denied by or intolerable to clients. Accordingly, research is needed to demonstrate whether the theoretical proposals that formulation can enhance clients’ ability to understand and manage risks are warranted, and what factors make the process tolerable to clients. This research is important because involving clients in understanding and managing their risks has implications not only for the recovery and rehabilitation of individual clients, but also for wider society. Interventions which may contribute to long-term engagement in risk management will be as important in ensuring the safety of others once clients return to their communities as will monitoring and supervision. Research exploring the potential benefits of formulation when used collaboratively with forensic clients is therefore vital and timely.
Conclusions

This review has synthesised and provided an overview of the existing literature on the use of formulation in forensic mental health settings to assess, manage and reduce risk. It is clear that in these settings the function of formulation has diversified (Jones, 2010; Minoudis et al, 2013), and its contributions are not limited to the traditional role of identifying intervention strategies within therapy. Each of the three functions described in this review have different aims and different recipients. Accordingly each will have its own research agenda, and suggestions for the direction of future research in each area have been made here. A common theme across all three areas was the lack of existing evidence and the need for exploratory research to begin establishing an evidence base to support the value of formulation and enhance understanding of how it can be used most effectively in forensic mental health settings. In particular there is an urgent need for research focusing on how formulations can be used to assist forensic mental health clients in better understanding and managing their own risks.
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Chapter II

Empirical paper

Exploring the collaborative development of Cognitive Analytic Therapy (CAT) Sequential Diagrammatic Reformulations (SDRs) with patients in a High Secure Hospital: Implications for understanding and managing risks.

This empirical paper will be submitted to *Psychotherapy Research*

(See Appendix A for author guidelines)
Empirical paper word count: 8971
Abstract

Objective

Cognitive Analytic Therapy (CAT) is widely used with patients in secure mental health services and sequential diagrammatic reformulations (SDRs) are thought to facilitate patient understandings of risk.

This study sought to explore patients’ experiences of CAT and developing the SDR, particularly in relation to how it had contributed to patients’ understandings of risk, and if and how these conceptualisations were useful in managing risk.

Method

Eight semi-structured interviews were conducted with high secure hospital (HSH) patients who had engaged in CAT. The data was analysed using thematic analysis and a social constructionist epistemology.

Results

CAT and the development and use of the SDR led to new understandings of the self and of risk. These were characterised by the belief that behaviours associated with risk could be anticipated, averted, and controlled by participants. The sequential mapping of risk behaviours on the SDR was integral to these reconstructions. Self-acceptance, an enhanced ability to understand and manage emotions, and hope for the future were also evident in the themes developed.

Conclusions

CAT and CAT SDRs can facilitate patient engagement in acknowledging, understanding and managing their risks.
Abstract

Objective

Cognitive Analytic Therapy (CAT) is widely used with patients in secure mental health services and forensic patients (F2Ds) are thought to facilitate patient engagement and reintegration.

This study aimed to explore the relationship between CAT and engaging F2D patients in the context of forensic services.

Method

Eight semi-structured interviews were conducted with high secure hospital (HSU) patients who had engaged in CAT. The data was analyzed using thematic analysis and a social

Abstract word count: 185
Keywords

Brief psychotherapy
Case conceptualisation
Mentally ill offenders
Risk management
Forensic psychology
Qualitative research
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Appendix A

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Appendix B

Epistemology
Social constructionism is a conceptual framework which views knowledge as historically, socially, and culturally specific (Harper & Spellman, 2006). Accordingly, there are no ‘truths’ about the world, only different perspectives. These different perspectives, or realities, are socially constructed and sustained through social interactions and processes (Fruggeri, 1992; Burr, 2003; Harper & Spellman, 2006). As such social interactions, particularly language, are of great interest to social constructionists (Burr, 2003). Language provides the means through which we structure our experience and understand ourselves and others (Burr, 2003). For this reason it is not simply a tool for expressing beliefs which predate it (Burr, 2003), language structures and limits our thinking (Cecchin, 1992), and therefore determines our beliefs.

Due to the focus of this research being on understanding how participants have developed their current understandings of risk, a social constructionist framework was chosen. Individuals detained in high secure hospitals will have been exposed to multiple understandings of risk, for example societal, legal, medical, and institutional constructions of their difficulties and potential risks to others. Additionally, many will have participated in numerous individual and group therapies, through which they will have been exposed to yet more constructions of their problems. From a social constructionist perspective none of these standpoints are correct, they are simply the socially accepted and sustained constructions within the milieu of the high secure hospital.

This research was interested particularly in how CAT formulations of participants’ difficulties and risk behaviours had influenced their understandings. Social constructionism can be viewed as epistemologically incompatible with therapeutic theories, which according to Gergen and Kaye (1992) are an outgrowth of the modernist context. Modernist accounts view knowledge as objective representations of reality which can be found to be true or false (Gergen & Kaye, 1992). Therapeutic theories contain explicit assumptions about the
underlying causes or basis of people’s difficulties, and how difficulties can be eliminated (Gergen & Kaye, 1992). Accordingly they can be viewed as subscribing to a modernist perspective, proclaiming that there are definitive truths about psychological difficulties. However, psychotherapy can alternatively be viewed as a collaborative discourse about a problem in which new meanings are developed (Gergen & Kaye, 1992). Both client and therapist bring with them their own pre-existing constructions, and for the therapist these may be structured by their chosen model of psychotherapy (Frugerri, 1992). The therapist’s constructions however are also constrained by the client’s, and the results of therapy are therefore interdependent and stem from a convergence of meanings (Harper & Spellman, 2006). Even when either party appears to be passive, client and therapist are actively participating in the therapeutic situation that develops (Cecchin, 1992). Accordingly, therapy can be seen as a series of interactions and the formulation as one account of this interaction, of the person’s difficulties, and what may need to happen for change to occur (Harper & Spellman, 2006). This construction is the result of an interdependent process (Harper & Spellman, 2006) and its development is as dependent upon the client as it is the therapist (Cecchin, 1992). From a social constructionist perspective therapy outcomes are therefore a reflection of the reconstruction of clients’ narratives, not because they are incorrect, but because their difficulties at the outset suggest that they were limiting and problematic for the client (Gergen & Kaye, 1992). Successful therapy leads to an understanding that one does not need to adhere to restrictive narratives (Gergen & Kaye, 1992), and as a result choice and change become possible (Fruggeri, 1992). This research aimed to explore how CAT formulation had contributed to this restructuring. Essentially the researchers were interested in how participants’ beliefs about risk were generated, how their beliefs changed, the contributions and usefulness of CAT formulation in these changes, and what it was about CAT that enabled changes in constructions to occur.
References


Appendix C

Interview schedule
Interview schedule

Introduction (un-taped)

- Thank you for participating.
- Information sheet and consent form.
- Demographics sheet.
- Interview session won’t exceed one and a half hours.
- Some of the interview questions will ask you about risk, you do not need to give specific details of any offences. If you would prefer not to answer the question please say and we can move on.
- Do you have any questions before we start the interview?

Begin recording.

State participant number for the tape.

1. Can you describe any CAT work you have completed?
   - When was this?
   - Who was this with?
   - What was the aim of it?
   - What can you remember about it?
   - Was it helpful?

2. What is your understanding of CAT?
   - Do you know why is it used?
   - How is it different to other therapies you have engaged in or heard of?
   - Can you tell me anything else about your understanding of CAT?

3. Was there anything about CAT which you particularly liked or disliked?
   If have SDR with them and point, ask them to explain (for the recording).

   If therapeutic relationship mentioned- what was it about doing CAT that aided the development of a therapeutic relationship?
4. What was it like developing the CAT diagram?

Insight

1. What do you think insight means?


- Can you tell me more about that?
- Can you think of an example?

2. Do you think that doing CAT has helped you with your insight?

- What insight did you need to develop?
- How has it changed?
- What was it about CAT? - the diagram? Thinking about early life and its relationship to the present / any violence you committed? Increased understanding of patterns of relationships that you get into? Awareness of how other people treat/respond to you? Do you cope with this better? Do you have an increased understanding of your thoughts, feelings and behaviours and ways in which you cope?
- Are there any other ways CAT helped with your insight?

3. What, if anything, is different for you since you completed CAT?

- Since doing CAT what do you do differently?
- Has this improved your life day-to-day?
- Has CAT changed your relationships with others?
- How you think or feel about yourself since doing CAT?

Risk

1. What is risk? (Risk to self, others etc?)
- *How do you think you have been risky in your life?* (specific details of offences not needed)

2. **What is your understanding of your current risk?**
   - *What might make you risky?*
   - *Can you think of any triggers or causes?* (emotional states, patterns of relating to others).

3. **Has the CAT diagram influenced your current understanding of risk?**
   
   If they have SDR with them and point, ask them to explain (for the recording).

   (Risk to self and others, etc. Relationship patterns, early life, internal processes, exits; therapeutic relationship).

4. **What was it like to think about your own risks in CAT?**
   
   - *Is there anything you liked about thinking about risk in your CAT sessions?* (Involvement in the process? Increased understanding?)
   
   - *Is there anything that you disliked about thinking about risk in your CAT sessions?*
   
   - *What, if anything, was different about thinking about your risk in CAT compared to other discussions you’ve had about risk?*

5. **Will the CAT diagram help you to manage risk in the future?**
   
   If have SDR with them and point, ask them to explain (for the recording).
   
   - *What do you do differently?*
   
   - *Are you more aware of your triggers?*
   
   - *Are you more aware of what makes you ill? Angry? Or self-harm?*
- Are there any other ways the CAT diagram will help you to manage risk in the future?

Other

1. What else has influenced your insight and understanding of risk?

   (peers, nursing staff (a particular relationship), responsible clinician, time, environment, other therapies?)

2. Other than CAT, how else have you been involved in identifying and monitoring risks?

   - What was this like?

3. Is there anything else you would like to add?

Thank you for your time. The interview is now over.

Stop recording.

Un-taped:

- How are you feeling after the interview? (any issues raised requiring further discussion?)
- What happens next – interview will be anonymised and typed up. I will then look for themes in typed up interviews. This will take a couple of months. When this is finished you can receive a summary and/or full report of the findings, if you wish.
- Check consent.
- Any further questions?
- Thank you.
Appendix D

Participant information sheet
Participant Information Sheet

Research title: How useful do patients in high secure services find the process of Cognitive Analytic Therapy (CAT) formulation?

Researcher: Aimee Croft (Trainee Clinical Psychologist)

We would like to invite you to take part in a research study. Before you decide you need to understand why the research is being done and what it would involve for you. The researcher will go through this information sheet with you and answer any questions you have. You do not have to decide whether to take part now. You can keep this sheet and the researcher will contact you in a week’s time to see if you would like to participate. During this time you can talk to others about the study if you wish, for example someone from your care team, an advocate, friend or family member.

What is the aim of the study?

The researchers are interested in patients’ experiences of developing formulation diagrams in Cognitive Analytic Therapy (CAT). Namely how they found the process and what impact it had on their day to day coping and wellbeing. The researchers also wish to explore patient understandings of risk, and their views on how (if at all) the formulation diagram will help them to manage risk in the future.

Why have I been invited?

We are asking you to take part because you have developed a formulation diagram with your therapist as part of your CAT therapy.

Do I have to take part?

No, participation is completely voluntary. If you do decide to take part we will ask you to sign a consent form to show that you have read this information sheet and have agreed to take part. Your decision to participate or not will not affect the standard of care or therapy you receive.

What is involved?

Participation will involve an interview with the researcher. You will be asked questions about:

- Your experience of developing a formulation diagram with your therapist.
- Any effects you feel the diagram has had on your day to day coping.
- How you understand insight and risk.
• How helpful you feel the formulation process will be in helping you to monitor and manage risks in the future.
• Any other factors you feel have contributed to your understandings of insight and risk.

The interview will focus on your experience of developing a CAT formulation diagram, rather than past events which may be represented in your diagram. The interviewer will not have seen your formulation diagram, but if you wish to you can bring your copy to the interview.

The interview will take no longer than an hour and a half and will take place in the therapy suite, or an interview room on your ward. The interview will be recorded so that it can be transcribed (typed up).

You will also be asked for some demographic information. This will be:

• Your age.
• Your length of stay in hospital.
• Any diagnoses you have been given.
• The offence leading to your detention in hospital.

This information is needed only to indicate the spread of participants. For example the average age of participants, and the range of index offences, diagnostic labels and durations in hospital. This data will not be presented in a way which makes individual participants identifiable.

What are the possible risks of the study and what will be done to ensure confidentiality?

Possible risks:

There is the possibility that you may find some of the questions in this study uncomfortable or upsetting. You are free to leave any questions unanswered and you can end your participation at any time during the interview.

At the end of the interview the interviewer will debrief you. Any concerns about your emotional state or wellbeing will be passed on to the nurse in charge.

The opportunity to discuss further any issues raised by the interview will be provided by Dr Tanya Petersen and Dr Elisabeth Hansen (Clinical Psychologists at [Redacted] and supervisors of this research). If you feel uncomfortable discussing the interview with Dr Petersen or Dr Hansen you are free to discuss any issues with your internal coordinator / primary nurse or the ward psychologist.

Confidentiality:

What is discussed during the interview will be kept strictly confidential and anonymised after the interview so that you cannot be recognised. This will be done by:

• Assigning a participant number to your data (interview and demographic information) instead of using your name.
• Changing or omitting any identifiable information mentioned in the interview. For example if you were to mention the name of a town or place, this would be changed.
• Demographic information (such as your age, index offence, diagnoses, etc) will not be paired with any quotes from your interview used in the write up of the research.
• The supervisors of the research, Dr Tanya Petersen and Dr Elisabeth Hansen, will only see anonymised transcripts. They will not know what has been said by individual participants.

All audio-recordings will be destroyed after the research is completed. Anonymised transcripts and demographic information will be stored securely by Dr James Reilly at The Division of Clinical Psychology, University of Liverpool for five years before being destroyed.

Exemptions to confidentiality:

Some information cannot be kept confidential. If you disclose any issues which are concerning it may be important to share this with your care team. Examples of causes for concern would be expressing a current risk of harm to yourself or others, and disclosures of past abuse or criminal behaviour. If not already known to your care team action may need to be taken. The interviewer would always inform you if it was necessary to pass on anything discussed during the interview to members of your care team.

Will anyone else know that I am taking part in this study?

Your Responsible Clinician is aware that you are being invited to take part.

A copy of your consent form will be kept in your medical file and ward staff on duty will need to be informed that you are participating in an interview for research purposes. What is discussed during the interview however will not be disclosed.

Audio recordings

Hospital secretaries will assist in transcribing interviews (typing them). This means that they will listen to interview recordings. Secretaries will not know who is taking part in the study and your names will not be used to identify your recordings. During your interview the interviewer will not use your name. This means that your recording will only be identifiable as yours by a number.

What are the benefits of this study?

It is hoped that this study will provide a better understanding of how people develop insight into their risk behaviours, how people understand risk, and whether CAT formulation diagrams can help people manage the potential risks they pose to others and themselves in future. This might help clinicians to support patients to self-manage risk and to progress to lower levels of security.

Interviewing patients ensures that they are involved in developing knowledge and informing clinical practice. Without understanding patients’ views we can measure changes in risk behaviours, but we can’t understand the process which led to these changes. Your perspective is therefore extremely important.

What if I have any questions or want to complain about this study?

The researcher will answer any questions you have at the time of reading this information sheet. If you wish to discuss any issues further at a later date you can contact Dr Elisabeth Hansen or Dr
Tanya Petersen through your ward staff. You can also discuss the study further when the researcher contacts you in a week’s time to see if you would like to accept or decline your invitation to participate.

Before and after you are interviewed the interviewer will also ask if you have any questions.

If you have any concerns or wish to make a complaint about the study you should speak to the research supervisors (Drs Tanya Petersen and Elisabeth Hansen) in the first instance. If they are not able to resolve your concerns you can contact the Advocacy service through the ward office. If necessary they may contact the University Research Governance Officer on your behalf. Contact details for Research Governance can be requested from the researchers by Advocacy.

**Withdrawing from the study**

After signing the consent form you can still withdraw from the study. This can be before, during, or up to three weeks following your interview. After three weeks has passed interviews will be analysed. This involves generating themes across interviews, meaning it isn’t feasible to remove individual interviews. After analysis the research is written up. The aim of this is to describe and interpret the themes found across the interviews. Again this means it isn’t feasible to remove individual interviews.

If you wish to withdraw from the study in the three weeks after your interview has taken place the researcher will need your participant number to remove and destroy your interview and demographic information, as your name will not appear on these. You don’t need to remember your participant number, it can be found on your consent form, and this will be kept in your medical file. If you need to withdraw from the study a member of staff will need to contact Dr Elisabeth Hansen or Dr Tanya Petersen and give them your participant number.

**What will happen to the results of the research?**

The research will be submitted to the University of Liverpool as part of the named researcher gaining her Doctorate in Clinical Psychology and for publication in a scientific journal. Participants can opt to be sent a summary of the findings, and if they want, a copy of the final article. You will be asked to indicate whether you would like to receive a summary and / or the article at the time of your interview. If you decide at a later date that you would like a summary or copy of the article you can contact the research supervisors (Drs Tanya Petersen and Elisabeth Hansen) through your ward staff.

Thank you for taking the time to read this.

Please ask any questions.

Over the next week please take some time to consider whether or not you would like to take part. If you are happy for the researcher to do so she will contact you again in a week’s time and if you have decided to participate a date and time convenient for you will be arranged for the interview.

If you have already decided that you do not want to take part the researcher will not contact you again. You can still keep this information sheet and talk to anyone you wish about the study.
Research study team:

Aimee Croft (researcher)  
Dr James Reilly (research supervisor)  
Dr Elisabeth Hansen (research supervisor)  
Dr Tanya Petersen (research supervisor)
Appendix E

Examples of coding notes for each transcript
Examples from transcript 1

Participant describes CAT as starting at the beginning of his life and getting to the root of his problems. He likens this to an awakening, being able to make sense of his experiences and link these to his mental health difficulties. He describes the SDR as pulling all these experiences together and giving him something to look at. The participant states that the whole life focus of CAT felt very personalised and in this way was different to other therapies he had engaged in.

Examples from transcript 2

Describes finding CAT difficult because the therapist asked questions about his early life, and these were difficult to talk about and brought back bad memories. Participant describes feeling challenged by the therapist’s interpretations of his behaviour, and angry at her suggestions. The participant describes a lack of confidence in his therapist. He rejected her hypotheses about why he harmed others, stating that there were no reasons, it was just part of his “illness.” The participant felt that the therapist was telling him what his difficulties were, rather than listening to him.

Examples from transcript 3

He describes the SDR as showing him what someone else saw in him and patterns in his behaviour which he had not previously seen in himself. This was useful because he could learn new things about himself, specifically how the different parts of himself interacted, and to recognise when he was engaging in certain patterns of behaviour. This helped him to watch out for patterns associated with aggression (the build up to violence) and to change their usual course.

Examples from transcript 4

The participant describes learning about how he relates to others and why they respond to him in certain ways. He said that CAT had taught him how to do things differently in his interactions with others, and this led to better reactions from others. The SDR helped consolidate realisations about his behaviour, and added to his understanding of relational processes. It also stimulated further ideas for the participant which he could then tell the therapist to add to the diagram.
Examples from transcript 5

The participant describes the SDR as showing him the stages and consequences of how things lead on from one another, why he makes decisions at each stage, and how he ends up in particular states and situations. He describes the SDR as making things real, comprehensible and bringing things together. He uses the internalised diagram to identify where he is on a particular day, and to identify the different options he has for responding, and to avoid making the same mistakes.

Examples from transcript 6

The participant states that CAT allowed him to understand how his early life experiences had affected him and what he had learned from the treatment he received as a child. He stated that this was more personal than other therapies he had engaged in, and that CAT enabled him to understand why he is the way he is now, why he does certain things, why he offended, and why he has personality difficulties.

Examples from transcript 7

He describes CAT as a process of understanding your childhood, how you have been shaped as a person, why you do things, and where things went wrong (made mistakes). He states that this knowledge helps him to do things differently now, to make better choices, become a better person and as a result feel more satisfied in his relationships with others. By knowing himself he can stop himself from doing things that result in negative consequences. He states that prior to CAT he did not have this awareness of the consequences of his behaviour.

Examples from transcript 8

The participant describes CAT as a process of developing an understanding of himself and others (why they react to him in certain ways and how they view his behaviour). He described the process as helping him to gain perspective (take a step back) and to see things more clearly. The participant described his SDR as showing him sequences of behaviour which he had not realised he engaged in previously. He used the SDR to see where he was within a sequence during emotionally difficult times, and this helped him to think through how to cope. He stated that he now knew how to approach people differently and to think about things rather than jump in head first.
Appendix F

Initial thematic map
This text box is where the unabridged thesis included the following third party copyrighted material:

**Croft, A., Hansen, E., Petersen, T., & Reilly, J. (Pending).**
‘Exploring the collaborative development of Cognitive Analytic Therapy (CAT) Sequential Diagrammatic Reformulations (SDRs) with patients in a High Secure Hospital: Implications for understanding and managing risks.’ *Psychotherapy Research.*
Appendix G

Intermediate thematic map
This text box is where the unabridged thesis included the following third party copyrighted material:

Croft, A., Hansen, E., Petersen, T., & Reilly, J. (Pending). ‘Exploring the collaborative development of Cognitive Analytic Therapy (CAT) Sequential Diagrammatic Reformulations (SDRs) with patients in a High Secure Hospital: Implications for understanding and managing risks.’ *Psychotherapy Research.*
Appendix H

Reflexive appraisal
In qualitative research the researcher’s journey and process of discovery is important to reflect upon. Over the course of the research a reflexive diary was kept by the researcher and issues were discussed regularly with the research supervisors. This enabled the researcher to consider how her own constructions influenced the research process and how these constructions may have changed over the course of the research. Initially the researcher was drawn to explore clients’ perceptions of formulation due to a perception that formulation was helpful to clients in therapy and a desire to understand why this was. This perception was further shaped by the literature review process as the researcher immersed herself in understanding the different applications and potential benefits of formulation in understanding and managing risk. Accordingly the researcher had a preconception that formulation was useful, and it is likely that this will have influenced the course of the research interviews and the data analysis.

Reviewing coded extracts in stage four of the analysis helped to ensure that themes and sub-themes were rooted in the data and a fair interpretation of the narratives of participants (whilst acknowledging that qualitative research involves an interaction between the constructions of participants and of the researcher). The analysis and write up of the study were also verified by the research supervisors. The supervision process helped the researcher to consider other possible interpretations as well as how the interpretations of the researcher would be received by potential readers of the research, for example advocates of standardised interventions.

The researcher was aware of feeling both sadness and anger in relation to the narratives of deprivation of a number of participants. This was noted in particular in relation to one participant of the same age as the researcher. On reflection this related to her existing perspectives on social inequality and the social detriments of mental health difficulties and crime. The difference between the path the researcher’s life had taken and that of the
participant felt stark, and to the researcher further highlighted the need for social change. This felt at odds with research exploring patients’ ability to take responsibility for their actions. As the research process continued however the researcher reconciled the disparity between her perspectives, and this appeared to mirror participants’ descriptions of accepting the past and developing hope for the future. The researcher was reminded that the pasts of these individuals could not be changed, however the formulation of exits had helped them to reconstruct their expectations for the present and the future.