

Contributing to a Developing Evidence Base: Considering the Implementation and Effectiveness of Cognitive Analytic Therapy

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Keywords: Cognitive Analytic Therapy, systematic review, meta-analysis, effectiveness

Practitioner Points:

 Moderate to large effect sizes were found across three categories of outcome: global symptom measures, interpersonal functioning measures, and depression measures.

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Thesis Overview

Cognitive Analytic Therapy is increasingly being utilised in National Health Service (NHS) mental and physical health settings as a framework to understand service users and the possible nature and reasons for continuation of their distress (Ryle, Kellett, Hepple, & Calvert., 2014). The approach combines aspects of cognitive and psychodynamic models of psychotherapy and centres around the concept of 'reciprocal roles', a term used to conceptualise inter- and intra- personal patterns of relating between individuals and within the self (Ryle & Kerr, 2003).

The framework is being adapted for clients presenting with a broad range of difficulties (e.g. Wicksteed, 2016; Chanen, McCutcheon, & Kerr, 2014; Hepple & Sutton, 2004), including people with learning disabilities (Lloyd & Clayton, 2014). Despite its prevalence and implementation in clinical services, CAT remains at an early stage in terms of its developing evidence base (Ryle et al., 2014). An array of academic works have developed theoretical and clinically useful guidance documents to inform and shape clinical practice (e.g. Ryle, Leighton & Pollock, 1997; Meadows & Kellett, 2017), however fewer studies have robustly explored how CAT is being implemented within clinical services and considered its effectiveness (Ryle et al., 2014).

The present thesis aims to contribute to the evidence base for CAT in more methodically robust and systematic ways. One of the key threads of the thesis is the concept of 'effectiveness', the thesis starts by presenting effectiveness as considered within evidencebased medicine philosophies (see Herbert, 2003) which typically use empirical, psychometric methods of assessment to frame 'effectiveness' as a scientifically and homogenously representative phenomenon. As the thesis progresses, effectiveness is considered from a more 'bottom up' and clinically realistic position. Overall, the thesis raises interesting questions about how effectiveness is understood and implemented in clinical environments. The systematic review and meta-analysis (chapter 1) aims to provide an up-to-date overview of the literature contributing towards the CAT evidence base. This centres around the use of three categories of psychometric assessment measures as a way of considering the overall 'effectiveness' of CAT. By grouping together and statistically combining multiple studies, the review aimed to provide a more statistically powerful commentary on the current status of the developing evidence base.

The empirical paper (chapter 2) uses a thematic analysis methodology to explore how clinicians are using CAT within learning disability settings. This builds on existing accounts (e.g. Frain, 2011) which provide descriptions of anecdotal, individual applications of the model. Attempts have been made to describe adaptations for people with ID from the perspective of individual practitioners (Clayton, 2014), but to date, there has been no attempt to more systematically understand how clinicians are adapting their practice. The paper synthesises multiple practitioners' constructions of how they are adapting their practice, understanding the concept of ID and understanding effectiveness. This provides a richer and more contextualised understanding of effectiveness which, to some extent, contrasts with the epistemological underpinnings as presented within the systematic review.

The two papers have different target journals: Psychology & Psychotherapy; Theory, Research & Practice is the target journal for the systematic review and the Journal of Applied Research in Intellectual Disabilities for the empirical paper. The chapters conform to author guidelines however, figures and tables along with further contextual information are provided in accordance with thesis guidelines. Author guidelines for the papers are available in appendices (A & G).

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A Systematic Review and Meta-Analysis of Cognitive Analytic Therapy: A Review of the Current Evidence Base ¹

Craig Hallam

¹ This paper has been prepared for submission to the journal: Psychology & Psychotherapy; Theory, Research & Practice (see Appendix A for author guidelines).

Abstract

Purpose: Cognitive Analytic Therapy (CAT) is an integrative and time-limited psychotherapy, widely utilised within clinical services internationally. The present review aimed to assimilate and quantify the effectiveness of CAT with regards to psychological distress, interpersonal functioning and depression.

Method: A systematic review and meta-analysis were conducted on three outcomes which were selected based on available measures; global symptoms, interpersonal functioning and depression.

Results: All outcomes favoured improvement over deterioration in symptoms. CAT generated moderate overall effect sizes in terms of global symptoms (d = 0.64, 95% CI – 0.50 – 0.78) and interpersonal functioning (0.60, 95% CI – 0.46 – 0.74) and large depression effect size (d = 0.90, 95% CI – 0.63 – 1.17).

Conclusions: The results suggest that CAT is effective across a range of presenting difficulties and outcomes. The low dropout rate suggests that CAT is an acceptable form of psychotherapy. The CAT evidence base would benefit from utilising more controlled methodologies. A unified approach to developing the evidence base would serve to strengthen future meta-analytic attempts to assimilate the effects of CAT.

Keywords: Cognitive Analytic Therapy, systematic review, meta-analysis, effectiveness

Practitioner Points:

- Moderate to large effect sizes were found across three categories of outcome: global symptom measures, interpersonal functioning measures, and depression measures.
- Results suggest continuing to develop the evidence base for CAT is warranted and future research should focus on increased study quality.

Introduction

Context

Access to and provision of a range of evidence based psychological therapies has been the recommendation of various government policy and professional organisations in the United Kingdom within recent years (e.g. Department of Health, 2010; Mind, 2013; Mind 2014). Along with providing choice for a range of psychotherapeutic modalities, comes a need to establish the safety and acceptability of differing approaches in their developing stages (Craig et al., 2008), including establishing a robust evidence base (McHugh & Barlow, 2012). With increased pressures and reduced resources in the National Health Service (NHS) in recent years, developing an evidence base is also helpful in informing the efficient and targeted use of the limited resources which remain (e.g. Naylor, Taggart, & Charles, 2017).

Developing an evidence base for psychotherapeutic modalities has tended to rely on "evidence-based medicine" philosophies (see Herbert, 2003; Joyce, Wolfaardt, Sribney, Aylwin, 2006). These aim to use empirically supported methods to establish which interventions are more or less effective for different psychiatric diagnoses, leading to the generation of lists of empirically supported treatments (See Herbert, 2003 for a discussion). This approach is contentious, with counter arguments highlighting overemphasis on empirical epistemologies and minimisation of clinician judgement and autonomy (Tolin, McKay, Forman, Klonsky, & Thombs, 2015). Conversely, the approach has been recognised as contributing to increased study quality and reporting (Shojania, Duncan, McDonald, & Wachter, 2002) and increased protections for the public (Tolin et al., 2015). The paradigm has fuelled government level support for organisations that attempt to ensure clinicians are using safe and acceptable approaches in clinical practice (e.g. National Institute of Clinical Excellence, 2011; Baker & Kleijnen, 2000).

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The salience of these paradigms has led to questions around how the psychotherapy evidence base might develop most effectively. The 'hourglass model' (Salkovskis, 1995) suggests small scale, practice-based evidence (PBE; research representing the realities of clinical practice, not necessarily controlling for how practice is delivered; Swisher, 2010) can initially allow a greater understanding of effectiveness (i.e. a therapy's ability to produce beneficial outcomes in the realities of clinical practice; Kim, 2013) and a therapy's key mechanisms, which in turn can lead to more methodologically and scientifically robust studies (e.g. Randomised Controlled Trials; RCTs). This may allow for commentary on overall efficacy (i.e. a therapy's ability to produce beneficial outcomes in ideal circumstances; Kim, 2013), which can broaden the scope of research, allowing variations in implementation, focus and style to be explored (Salkovskis, 1995). Such explorations can allow audits and monitoring of evidence-based practice which can feedback into the development of PBE (Salkovskis, 1995). Other cyclical models acknowledge the importance of integrating efficacy and effectiveness research back into practice-based and service-level research to facilitate ongoing understanding and development (Barkham, Stiles, Lambert, & Mellor-Clark, 2010).

A growing range of psychological therapies are available in the NHS with differing degrees of practice and evidence-based research supporting effectiveness and efficacy (e.g. Hunsley, Therrian, & Elliot, 2014). Arguably, the most frequently disseminated and delivered psychotherapy in clinical services is Cognitive Behavioural Therapy (CBT), which has a well-established evidence base across a range of psychiatric disorders (Butler, Chapman, Forman, & Beck, 2006; Hofmann, Asnaani, Vonk, Sawyer, & Fang, 2012; Tolin, 2010). This has culminated in various meta-analyses establishing the efficacy of CBT across disorders and populations (e.g. Hofmann, Asnaani, Vonk, Sawyer, & Fang, 2012) and led to the recommendation for CBT as the treatment of choice for various diagnoses in national guidance frameworks (e.g. NICE, 2011).

Cognitive Analytic Therapy (CAT)

Cognitive Analytic Therapy (CAT), is an integration of psychodynamic and cognitive psychology to enable a time limited and relationally based therapy suitable for a wide range of diagnoses (Ryle & Kerr, 2003). CAT is delivered in 8, 16 or 24 session versions with a three phase reformulation, recognition and revision structure regardless of treatment duration. There are various other adaptations and implementations of the approach across settings (Calvert, Kellett, & Hagan, 2014; Carradice, 2014; Meadows & Kellett, 2015; Kellett, Hall & Compton- Dickinson, 2018; Easton, Berbary, & Crane, 2018). A two-year training course enables qualified CAT practitioner status (ACAT, 2017). A measure of therapist competence (CCAT; Bennett & Parry, 2004) has also been developed as a framework for evaluation and to encourage fidelity to the model's underlying principles.

CAT is popular with clinicians and clients and is widely implemented internationally across populations in clinical practice (Ryle, Kellett, Hepple, & Calvert, 2014). As NHS commissioners are increasingly relying on evidence-based outcomes when funding services, it is important to provide evidence that CAT is effective and providing positive or at least non-harmful outcomes for service users (Marriott & Kellett, 2009).

Existing Evidence

Previous attempts have been made to summarise the existing evidence for CAT. Calvert and Kellett's (2014) systematic review documented 25 research papers contributing to the developing evidence base. Five of the identified studies were randomised controlled trials with the remaining 20 contributing practice-based, small scale research (Calvert & Kellett, 2014). The inconsistency of practice-based research and lack of translation into controlled trials suggests CAT is not developing in a focussed way in line with the hourglass model of development (e.g. Margison, 2000; Calvert & Kellett, 2014). This places CAT in an unusual position of being widely practiced and implemented, but with a lack of confidence and clarity around efficacy, not just for separate populations, but for the approach as a whole (Margison, 2000). Calvert and Kellett (2014) concluded that the absence of evidence should not be equated to evidence of absence and called the development of the CAT evidence base as a matter of urgency.

One study has aimed to apply quantitative methods to expand on previous research through combining overall effect sizes for relevant studies, providing some initial commentary on overall efficacy and effectiveness of the approach. Ryle et al. (2014) combined the pre-post study effect sizes of 11 studies. These tended to draw from general symptom measures, however other measures were included if such measures were unavailable. The study highlighted moderate to large effect sizes, providing initial and very tentative evidence for the effectiveness of CAT. It concluded by suggesting that increased high-quality practice and evidence-based research, supported by fidelity checks, are needed to enhance understanding.

There are a number of critical considerations in relation to the Ryle et al (2014) study. Firstly, it was not always clear which measures were used in the analysis, limiting the conclusions that can be drawn for overall effectiveness (e.g. Kızılırmak, Özdemir & Öngen, 2015). Whilst this approach does reduce selection bias, attempts using this method should ideally combine psychometrics which have demonstrated convergent validity (e.g. Puhan, Soesilo, Guyatt & Schunemann, 2006). Relying solely on one measure of outcome can be problematic, as it limits exploration of multidimensional targets which might be relevant to change (Kendall, Holmbeck & Verduin, 2004). Multidimensional targets can allow an understanding of when and how significant changes might be apparent across certain dimensions, but also highlight lack of changes that might be useful for effective treatment prioritisation (Kendall et al., 2004). This is in line with multidimensional outcomes models of psychotherapy research, which highlight therapeutic changes as being variable and wideranging (e.g. De Los Reyes & Kazdin, 2006).

Aims of the Present Study

The present review aimed to build on these critical considerations by addressing the following aims:

- Gaining an up-to-date understanding of the CAT evidence base that has used quantitative methods to assess effectiveness across populations.
- 2) To then use meta-analytic methods to combine the pre-post effectiveness of CAT intervention studies that have used psychometric measures assessing global symptom presentation, interpersonal functioning and depression.

Method

The study used systematic review and subsequent meta-analysis methods to investigate the proposed aims. The protocol for the study has been pre-registered and is available through the Prospero website:

https://www.crd.york.ac.uk/prospero/display_record.php?RecordID=86009. Registration number: CRD42018086009.

Search Strategy

Databases. PsychInfo, Medline, CINAHL, and Web of Science were all searched within the present review.

Search terms. The key search term "cognitive analytic*" was used. This search term was used in the previous systematic review (Calvert & Kellett, 2014) and was deemed appropriate in capturing all studies which may have commented on cognitive analytic approaches. No search limiters were applied in the systematic searching.

Inclusion and Exclusion Criteria.

Table 1: Inclusion and Exclusion Criteria

Inclusion	Inclusion Criteria	Exclusion Criteria
Population	Any individual with any medical or	Studies with samples of
	psychiatric diagnosis receiving CAT,	participants below 18 years
	aged between 18 and 65.	old or above 65 years old.
Outcomes	Studies which included self-report	Any studies that had not
	psychometric measures of global	assessed at least one of the
	symptom presentation, interpersonal	three key outcomes (global
	functioning and/or depression.	symptoms, interpersonal

		functioning or depression)
		were excluded.
Study Design	Randomised controlled trials	Single case experimental
	(RCTs), non-randomised controlled	design studies. Narrative case
	trials, and controlled and	studies. Studies which do not
	uncontrolled (pre - post) clinical	include means and standard
	studies. Means and standard	deviations pre- and post-
	deviations of pre and post scores	intervention.
	must be available if the study can be	
	included in the meta-analysis.	
Interventions and	Both group and individual CAT	Studies which have included
Comparators	studies were included. A comparator	CAT combined with another
	condition was not necessary allowing	treatment modality e.g. CAT
	for the inclusion of PBE research.	and CBT combined.
	Studies with any comparator	Studies which commented on
	condition (control or active	a CAT consultancy model.
	treatment) were included. All studies	
	used the pre-post treatment effect	
	method.	
Setting	All treatment settings included	
Date	Studies published between 1960 and	
	the date of the search (26.05.18).	
Language	Published in English language	
Country of origin	Any country of origin	

Accessibility	Studies which had undertaken a peer	Unpublished studies e.g.
	review process and had been	Dissertations and conference
	published, or were about to be	papers.
	published in peer reviewed journals	
	were included.	
	Available through the University of	
	Liverpool electronic library holdings,	
	the article reach service, through	
	asking permission for the article	
	through Research Gate, or from	
	retrieving the article from emailing	
	authors directly.	

One reviewer (CH) assimilated a list of all studies generated from the four databases. The Association of Cognitive Analytic Therapy (ACAT) website was cross referenced as it includes a list of published CAT studies. Duplicates were removed, and all titles and abstracts of available studies were screened against inclusion and exclusion criteria with those clearly not appropriate being removed. Full text articles were then screened by one researcher (CH); if it was unclear if a study should be included, discussions were held with supervisors AJ, SK and MSB and a decision was made following discussion. A fellow trainee clinical psychologist (SH) screened 25% of the full text articles to ensure they were included/excluded appropriately, with any disagreements being discussed and agreed upon. Once studies had been selected, reference lists were checked, key authors were emailed to ask if they were aware of any further research in the area (see Appendix B for email), and authors' publication lists were checked. This left a final list of studies that were considered for further meta-analyses. A trainee clinical psychologist (SH) checked 25% of the included texts to ensure they met eligibility criteria. The final searches were conducted on 26.05.18.

Outcome Measures

Following initial searches, a decision was made to categorise available measures into conceivable categories. All category definitions are listed below. Discussions were held with supervisors (SK, AJ, BG and MSB) to decide which measures should be included or excluded from each category. Supporting references demonstrating convergent validity informed categorisation. A table summarising available measures and decision making are available in Appendix C. The final categories of outcomes and included measures for each category are listed below:

Global symptoms. The global symptoms outcome drew together measures that aimed to comment on general levels of distress or pan-symptomatic/pan-theoretical constructs relating to non-specific mental health difficulties. The 'Brief Symptom Inventory' (BSI), the 'Symptom Checklist Revised 90' (SCL-R-90), the 'CORE-OM', and the 'General Health Questionnaire' (GHQ) were deemed to appropriately fall into this category. The BSI and SCL-90-R show high convergent validity (Prinz et al., 2013). Convergent validity across item domains has also been demonstrated when comparing the CORE-OM to the SCL-90-R and the GHQ (Evans et al., 2002). Previous meta-analytic reviews have used similar techniques to provide commentary on overall symptom presentation (e.g. Ryle et al., 2014).

Interpersonal functioning. The interpersonal functioning outcome measured general levels of interpersonal difficulties (those relating to core and relatively stable patterns of relating) that led to distress or difficulty across life domains (e.g. relating to non-specific life

domains). This meant that measures relating to social and/or occupational functioning were not included. Interpersonal difficulties were predominantly measured using the Inventory of Interpersonal Difficulties (IIP; Horowitz, Rosenburg, Baer, Ureno & Villansenor, 1988). The original 127-item version has since been adapted into 64 and 32 item versions (Horrowitz, Alden, Wiggins, & Pincus, 2000; Barkham, Hardy, & Startup, 1996). Measures ask individuals to rate the strength of general interpersonal difficulties which might cause distress. All versions of the measure were included in the review and all have been shown to have high convergent validity (e.g. Soldz, Budman, Demby, & Merry, 1995). Previous metaanalyses have combined these measures to assess outcome in a psychotherapeutic context (McFarquhar, Luyten, & Fonagy, 2018). One study in the present review used the Person's Relating to Others Questionnaire (PROQ2; Birtchnell & Evans, 2004) which has shown convergent validity with IIP measures (Kalaitzaki, Birchnell, & Hammond, 2016).

Depression. Studies which included a measure of depression and/or those which contained a subscale of depression were included within the eventual analysis. Measures included the Beck Depression Inventory (BDI and BDI-II), the Depression subscale of the Hospital Anxiety and Depression Scale (HADS-D) and the Patient Health Questionnaire (PHQ-9). The BDI and BDI-II have demonstrated convergent validity (Dozois, Dobson, & Ahnberg, 1998). The BDI-II and PHQ-9 have shown adequate convergent validity (Titov et al., 2011) as have the BDI and HADS-D (Wang & Gorenstein, 2013). The PHQ-9 and HADS-D have also shown significant convergent validity (Cameron, Crawford, Lawton, & Reid, 2008). Previous meta-analyses have combined measures of depression in a similar way (e.g. Andersson & Cuijpers, 2009). If a study used more than one depression measure, the most frequently used measure was included in the final analysis as a way of increasing cohesion between measures.

Quality Assessment

The quality assessment process was implemented as a way of monitoring the quality of included studies and allowing for a more objective commentary on the conclusions that could be drawn. Initial searches identified a range of studies including RCTs, nonrandomised controlled trials and case series/cohort studies. There were no available tools which could provide commentary on all of these study types. Although no previous quantitative syntheses of the CAT evidence base has assessed quality, previous similar systematic reviews (Calvert & Kellett, 2014) and other meta-analyses (Virués-Ortega, 2010) have used the Downs and Black (1998) tool to quality assess the range of included studies; this allows commentary on both randomised and non-randomised trials.

The present study employed the same tool across all included studies. A full list of criteria and how these were adapted for studies that did not employ randomised or non-randomised methods is available in Appendix D. The tool assesses methodological quality through a 27-item checklist comprising five subscales measuring each study's reporting (10 items), internal validity – confounding (6 items), internal validity – bias (7 items), external validity (3 items) and power (1 item). There are well noted difficulties in how the final item relating to power on the scale should be calculated and studies have converted this item into a yes/no response which asked whether a power calculation had been performed (O'Connor et al., 2015). The present study employed the same method. This meant the overall scores ranged from 0 - 28, with higher scores indicating higher methodological quality. Studies were classified into the following groups with those scoring between 24 - 28 classed as excellent, 19 - 23 classed as good, 14 - 18 classed as fair and less than 14 classed as poor (O'Connor et al., 2015).

The primary author (CH) rated all of the included studies on the Downs and Black (1998) tool and then ordered these from highest scores to lowest (A full table of scores for each study is available in appendix E). This list was then divided into four sections (with 3 lists containing 5 papers and 1 containing 4 papers); a second rater (trainee clinical psychologist) rated two papers from each list (eight in total). All ratings were analysed using the Kappa statistic (Cohen, 1960) which advises ratings between .21 - .40 as fair agreement, .41 - .60 as moderate agreement, .61 - .80 as substantial agreement and .81 – 1.0 as almost perfect agreement (Landis & Koch, 1977). The Kappa rating between primary and secondary raters was k = 0.767 indicating substantial agreement. Any discrepancies were discussed between raters and agreements were made.

Data Extraction

A specific tool (Appendix F) was designed in order to extract data from primary studies in a replicable manner. Relevant data for all studies was extracted and summarised (see results section for table of extracted data). All data extracted was based on relevant variables from existing meta-analyses (e.g. Cuijpers et al., 2013; Tolin, 2010), the categories of extracted information are listed below:

Methodological characteristics: study design/type, quality assessment score, use of the measure of therapist's competence in CAT (CCAT; Bennett & Parry, 2004), the mean CCAT score and whether this indicated therapist competence. Scores greater than 20 are seen as signalling that competent CAT was apparent in that session (Bennett & Parry, 2004).

Intervention Characteristics: number of sessions for CAT, whether the study evaluated group or individual CAT, treatment setting, whether the CAT therapist was qualified or not and drop-out rates. An overall averaged percentage drop out rate was calculated as a proxy measure of acceptability (Kaltenthaler et al., 2008). Participant characteristics: age, gender (% male) and specified difficulties.

Pre-post treatment outcomes: pre- and post-intervention means and standard deviations for outcomes relating to global symptoms, interpersonal functioning and depression for CAT treatment conditions only.

Pre-post Effect Sizes

Effect sizes were calculated using the within-groups pre-post method. Effect sizes for all measures were converted into these similar metrics to allow comparisons. The interpretation of effect sizes was informed by Cohen's criteria, with 0.2 indicating a small effect, 0.5 indicating a moderate effect, and 0.8 indicating a large effect size (Cohen, 1992). Where studies had assessed more than one of the outcome variables, a separate effect size was calculated for each outcome (e.g. depression) and included in the relevant meta-analysis (e.g. pre-post effect of CAT on depression). If a study was an RCT or other comparison trial, the pre and post effect sizes were used for the CAT group only. Standardised mean differences (SMDs) were calculated by subtracting the mean post-treatment score from the mean pre-treatment score and dividing this by the pre-treatment standard deviation (SD). All included measures across outcomes used a scoring system whereby increased scores indicated increased severity of difficulties and therefore all SMDs were calculated in the same way. To assess within group variance, a thumb estimation (e.g. Smith, Glass, & Miller, 1980) of 0.5 was imputed (as suggested by Follmann, Elliott, Suh & Cutler, 1992) as no included ore-post test correlations were included. Following SMD calculations, the Hedges g correction was applied – this was used to account for small study sample bias (Hedges & Olkin, 1985).

Meta-analysis

The generic inverse variance method was utilised in RevMan software (Cochrane Collaboration, 2014) to analyse all data. The software allowed effect sizes across studies to be extracted and aggregated and produced a pooled effect size with 95% confidence intervals. The inverse of the variance was used to weight effect estimates. A random effects model was used for all analyses due to the variability in psychometric measures and use of different study types. Heterogeneity was assessed using the I^2 statistic which indicated the percentage of variation and the Q statistic to assess significance. Study heterogeneity was grouped into low (25%), moderate (50%) and high (75%) following suggested guidelines (Higgins, Thompson, Deeks, & Altman, 2002).

Publication Bias

A funnel plot of SEs against effect sizes was created and visual inspection assessed for the presence of publication bias. The Cochrane Collaboration (2010) has suggested that including substantially less than ten studies within a funnel plot would be unwise. Due to the anticipated low number of outcome studies, a limit of eight was used as a cut-off point for undertaking funnel plot analyses – although this can weaken power estimates (Lau, Ioannidis, Terrin, Schmid, & Olkin, 2006) it can help to comment on and shape early meta analyses which have limited study numbers (Higgins, Thomson, Deeks, & Altman, 2003) and this limit has been included in previous meta analyses (e.g. Julian et al., 2003). Further 'Trim and Fill imputation' (Duval & Tweedie, 2000; Van Rhee, Suurmond & Hak, 2015) was applied and gave effect estimates which accounted and adjusted for publication bias.

Results

Study Selection

Combining database searches and other sources of information produced 763 references, which reduced to 520 once duplicates were removed. Title and abstract reviews filtered out 441 studies, which left 86 studies for full text review. Sixty-eight studies were excluded following full text review (See figure 1 for full PRISMA diagram), leaving 18 included studies. Following reference checks, searching publications lists and emails to key authors, an additional study was identified, which was in press (had undertaken a peer review process) and included in the final meta-analysis (Kellett et al., 2018). This left 19 studies which were included across the three separate meta-analyses.



Figure 1. Flowchart of included studies (adapted from Moher, Liberati, Tetzlaff, Altman, and Group 2009).

Study Characteristics

See table 2 for full list of study characteristics.

Global symptoms.

Methodological characteristics. The global symptoms assessment contained 13 studies. Two of the studies contained the BSI, seven contained the SCL-90, three contained the CORE-OM and one contained the GHQ. Ten studies were practice based evidence (PBE). Two of the studies (Clarke, Thomas & James, 2013; Evans, Kellett, Heyland, Hall & Majid, 2017) were randomised controlled trials. In terms of quality assessment, ten of the studies were rated as poor (scores ranged from 6 - 10), three studies were rated as fair (scores ranged from 14 – 18) and one studies was rated as good (19). Three studies used the CCAT and all exceeded the recommended cut off point of 20 to demonstrate therapist competence (mean scores ranging from 22 to 34.35).

Intervention Characteristics. CAT interventions ranged from 7 - 30 sessions. The studies contained both group (n = 1) and individual CAT interventions (n = 12). Most studies contained participants who lived in the community and who were accessing specialist mental health or psychotherapy services (n = 11), other studies did not provide information on intervention context (n = 2).

Participant Characteristics. The age of study participants ranged from 18 - 64. One study did not comment on participant gender, and the remaining studies showed samples with more than 50% women.

Table 2: *Study characteristics*

First	Study	Quality	Mean	No. of	Individual	Treatment	Drop Out	CAT	Age	Gender (%	Presenting
Author and	Design	Score	CCAT	sessions	or group	Setting	Rate	therapist		Male)	problems
Date	/ Type		Score		CAT			qualified?			
Birtchnell	PBE	8 - Poor	No	Mainly	1:1	Psychotherapy	22.5%	Not	39 (22-61)	24%	Mixed
et al.				16 also 7,		Service		Specified	[10.1]		
(2004)				11 and 24							
Brockman	RCT	6 - Poor	No	12	1:1	Outpatient	0%	No	Unknown	Unknown	Unknown
et al (1987)											
Calvert &	PBE	13 –	N/A	24	Group	Psychotherapy	31%	Yes	34.65 (18 -	0%	Complex
Kellett		Poor				Service			64) [10.67]		trauma
(2015)											
Clarke et	RCT	17 -	22	24	1:1	CMHT	20%	Yes	36 (19 –	28%	Borderline
al. (2013)		Fair							59)		Personality
											Disorder
Clarke &	PBE	7 - Poor	No	Unknown	1:1	Clinic	16.67%	Yes	27 (19 –	0%	Complex
Llewlyn									48)		trauma
(2000)											
Clarke &	PBE	7 –	N/A	16	1:1	Outpatient	0%	Yes	32.5 (22 –	100%	Complex
Pearson		Poor							53)		trauma
(2000)											
Dunn et al	PBE	10 -	No	Unknown	1:1	Clinic	27%	Not	Unknown	42%	Mixed
(1997)		Poor						Specified			
Evans et al.	PBE	5 - Poor	N/A	20, 13	1:1	Not Specified	0%	Yes	32 (24 –	0%	Mixed
(1996)				and 16					42)		

Evans et al (2017)	RCT	18 - Fair	Yes (34.16, SD = 5.49)	24	1:1	Psychotherapy Service	11.11%	Yes	48.33 [9.85]	22% for CAT, 22& TAU	Bipolar Disorder
Fosbury et al (1997)	RCT	17 - Fair	No	16	1:1	Diabetes Clinic	50%	Not Specified	31.5 [8.85]	30% men CAT, 31% men control	Poor management of diabetes
Kellett et al (2013)	PBE	15 - Fair	Yes (34.35, SD 6.39)	24	1:1	Psychotherapy services and CMHTs	11%	Yes	Three male 38.00[1.73] and 14 female patients 28.27[8.73]	18%	Borderline Personality Disorder
Kellett et al (2018)	RCT	19 – Good	Yes (25) [18 – 40]	8	1:1	Primary Care Service	32.7%	No	27 (19 – 48)	24.5% full CAT, 22% minus NR	Depression
Marriott & Kellett (2009)	PBE	11 – Poor	N/A	7 – 16 17 – 30.	1:1	Outpatient	Unknown	Yes	Unknown	ST CAT = 42%. MT CAT = 26%. ST CBT = 29%. MT CBT = 48%. ST PCT = 29%. MT	Mixed

										PCT =	
										16%.	
Meadows	PBE	13 -	No	6	1:1	Primary Care	Unknown	No	37 [10.7)	41%	Anxiety
& Kellett		Poor				Service			[24 to 57]		disorders
(2017)											
Ryle et al	PBE	10 -	N/A	24	1:1	Clinic	11.43%	Yes	Unknown	41%	Borderline
(2000)		Poor									Personality
											Disorder
Taylor et al	PBE	9 –	Yes	8	1:1	Primary Care	0%	No	(27 – 55)	12.5%	Depression
(2018)		Poor	(25)			Service					
			[18 –								
			40]								
Tzourmanis	PBE	5 - Poor	No	Unknown	1:1	Clinic	18%	Yes	Unknown	42%	Panic
(2010)											Disorder
Wildgoose	PBE	6 - Poor	N/A	16	1:1	Not Specified	0%	Yes	39.4 (30-	40%	Borderline
et al (2001)									47) [7.1]		Personality
											Disorder

Thirteen studies gave information to calculate drop-out rates and one study did not specify these. Studies often discussed service users described as having a mixture of different diagnoses or presenting difficulties (n = 4). Borderline Personality Disorder was the most discreetly labelled category (n = 4), others included individuals labelled with Bi Polar Disorder (n = 1) and a history of complex trauma (n = 3). One study did not specify any clear presenting difficulties (n = 1).

Interpersonal Difficulties.

Study characteristics.

Methodological characteristics. Eight studies were included in the assessment of interpersonal difficulties. Seven studies included variations of IIP (including the IIP 32 and 127) and one study used the PROQ-2. Three studies were RCTs and 5 studies were PBE studies. Two of the included studies used the CCAT and both indicated therapist competence (mean scores of 22 and 25). The quality assessment scores were as follows: six studies were rated as poor (scores ranging from 6 - 13) and 2 were rated as fair (scores of 17).

Intervention Characteristics. Included studies contained between 7 and 30 sessions of CAT intervention. Studies contained both one to one (n = 7) and group (n = 1) CAT interventions. Seven studies were undertaken in specialist community mental health service/psychotherapy services and 1 study did not specify the service context. Eight studies reported drop-out rates.

Participant Characteristics. Participants' ages ranged from 18 – 64. All studies reported below 50% of males within CAT and comparator conditions. Three studies included a discrete sample of participants given a label of personality disorder, three studies included mixed difficulties. One study included complex trauma and one study included diabetes management.

Depression.

Study Characteristics.

Methodological characteristics. Twelve studies were included in depression outcome. Seven studies included the BDI or BDI-II, three included the PHQ-9, and one included the HADS. Two studies were RCTs, one was a non-randomised control trial and the remaining eight were PBE studies. Three studies used the CCAT and all three of these indicated therapist competence (mean scores ranged from 22 to 34.16). Quality ratings showed that nine studies were rated as poor (scores ranging from 6 - 13), two were rated as fair (scores ranging from 15 - 18) and one was rated as good (19).

Intervention characteristics. Included studies contained between seven and 30 sessions for CAT conditions. Studies contained 11 studies considering individual CAT and one study considering group CAT. All studies were in community health care teams, psychotherapy services or outpatient services. Ten studies reported information relating to drop out rates.

Participant characteristics. Eight studies reported participant ages between 24 and 57. Four studies did not provide age ranges. Ten studies reported below 50% of males included and one study did not report gender distribution. Two of the studies focussed on depression specifically, two of the studies included people who had experienced CSA and the remaining seven studies contained a range of presenting difficulties.

Overall Drop-out rate. Of all 19 included studies, 17 included information on dropout rates. The average percentage of participants who dropped out across all studies was 17.31%.

Meta-Analysis

Outcome 1: Pre-post effect of CAT on Global Symptoms.

Effect size. Thirteen studies were included in the overall analysis. Marriott and Kellett (2009) contributed two data sets to this analysis due to including two sets of separate data relating to CAT outcomes. Four hundred and thirty-four participants contributed to the overall analysis. The overall aggregated SMD for the uncontrolled pre-post group was 0.64 (95% CI – 0.50 - 0.78; Z = 9.20; p<0.0001) suggesting a significant moderate positive effect of CAT on global symptoms. There was a non-significant, moderate level of between study heterogeneity (I² = 39%, Q = 21.20; p = 0.07) suggesting moderate variation in effect sizes but not substantial enough to be statistically significant. See figure 2 for forest plot.



Figure 2. Forest plot highlighting overall effect sizes for the global symptoms outcome

Publication Bias

Funnel plot inspection (See Figure 3) showed slight asymmetry with more studies

being placed closer to the null. Trim and fill imputation allocated two studies with larger
effect sizes into analysis and subsequently generated a slightly increased overall estimated effect size of 0.69 (95% CI – 0.56 - 0.82). See Figure 3 for funnel plot.



Figure 3. Funnel Plot highlighting publication bias levels for the global symptoms' outcome

Outcome 2: Pre-post effect of CAT on Interpersonal Problems.

Effect size. Eight studies were included in the overall analysis. Marriott and Kellett (2009) contributed two data sets to this analysis. Three hundred and sixty-four participants contributed to the overall analysis. The overall aggregated SMD for the uncontrolled pre-post group was 0.60 (95% CI – 0.46 - 0.74; Z = 8.32; p<0.0001) suggesting a significant moderate positive effect of CAT on interpersonal problems. There was a non-significant, moderate level of between study heterogeneity (I² = 37%, Q = 12.72; p = 0.12) suggesting non-significant variability in reported effect sizes across studies. See Figure 4 for forest plot.

				Std. Mean Difference	Std. Mean Difference
Study or Subgroup	Std. Mean Difference	SE	Weight	IV, Random, 95% CI	IV, Random, 95% Cl
Birtchnell et al (2004)	0.6544571 0.).176777	10.9%	0.65 [0.31, 1.00]	_
Calvert et al (2015)	0.3500952 0.).098533	20.1%	0.35 [0.16, 0.54]	
Clarke et al (2013)	0.54091596 0.).166667	11.8%	0.54 [0.21, 0.87]	→
Dunn et al (1997)	0.64400756 0.).107833	18.7%	0.64 [0.43, 0.86]	
Fosbury et al (1997)	0.36660976 0.).316228	4.4%	0.37 [-0.25, 0.99]	- -
Marriott & Kellett MT	0.93631302	0.19245	9.7%	0.94 [0.56, 1.31]	_
Marriott & Kellett ST	0.56110838 0.).162221	12.2%	0.56 [0.24, 0.88]	
Ryle & Golynika (2000)	0.88612029	0.19245	9.7%	0.89 [0.51, 1.26]	_ _
Wildgoose et al (2001)	0.33650165 0).447214	2.4%	0.34 [-0.54, 1.21]	
Total (95% CI)			100.0%	0.60 [0.46, 0.74]	•
Heterogeneity: Tau ² = 0.02; Chi ² = 12.72, df = 8 (P = 0.12); l ² = 37%					
Test for overall effect: Z = 8.32 (P < 0.00001)				-Z -1 U 1 Z	
· ·					Favours Detenoration Favours improvement

Figure 4. Forest plot highlighting overall effect sizes for the interpersonal difficulties

outcome

Publication Bias

Funnel plot (figure 5) inspection did not show large amounts of asymmetry. One

study with a smaller effect size was imputed into the data set resulting in a slightly reduced

overall effect size of 0.56 (95% CI, 0.39 - 0.73). See Figure 5 for funnel plot.



Figure 5. Funnel plot highlighting publication bias levels for the interpersonal difficulties outcome.

Outcome 3: Pre-post effect of CAT on Depression.

Effect size. Twelve studies were included in the overall analysis. Marriott and Kellett (2009) contributed two data sets to this analysis meaning 13 data sets were included overall. Four hundred and ninety-two participants contributed to the overall analysis. The overall aggregated SMD for the uncontrolled pre-post group was 0.90 (95% CI – 0.63 - 1.17; Z = 6.51; p<0.0001) suggesting a significant large positive effect of CAT on depression symptoms. There was a significant large amount of between study heterogeneity (I² = 87%, Q = 92.33; p < 0.0001) suggesting large variation in reported effect sizes. See Figure 6 for forest plot.



Figure 6. Forest plot highlighting overall effect sizes for the depression outcome

Publication bias

The funnel plot inspection did not show large amounts of asymmetry. Trim and fill imputation analysis imputed a single study and as such demonstrated a slightly higher estimated effect size of 0.94 (95% CI – 0.66 - 1.21). See Figure 7 for funnel plot.



Figure 7. Funnel plot highlighting publication bias for the depressions outcome

Discussion

The present review aimed to build on a previous systematic review (Calvert & Kellett, 2014) and an early limited meta-analysis (Ryle et al., 2014) to arrive at a contemporary statement of the evidence base regarding the effectiveness of CAT. This was achieved by summarising and quantifying the CAT treatment evidence base across three outcome domains; global symptoms, interpersonal functioning and depression. The assessment of the effectiveness of CAT for interpersonal problems was particularly indicated, as CAT presents itself as a relational psychotherapy that is able to conceptualise and change interpersonal processes (Ryle & Kellett, 2018).

Overall, 19 studies were included across three meta-analytic comparisons. The majority (85%) of studies were practice based evidence studies, with fewer studies (15%) providing more robust evaluations of outcomes such as randomised controlled trials. Since the previous reviews (Calvert & Kellett, 2014; Ryle et al., 2014), there is further indication that the evidence base is developing through both clinical trials (e.g. Evans et al., 2017; Kellett et al. 2018) and also further PBE (e.g. Taylor et al., 2018). There is still however a tendency towards favouring PBE style evaluations over clinical trials in terms of generating CAT evidence. This provides evidence that CAT remains in the early stages of the hourglass model of research development in relation to alternative treatment modalities (Calvert & Kellett, 2014).

The meta-analysis commented on three separate outcomes; a summary and commentary on the main conclusions are outlined below:

Global Symptoms

The results provided a commentary on global symptom presentation; that is, the effectiveness of CAT in reducing scores on pan-symptomatic and pan-diagnostic measures of

general mental health difficulties and/or distress. Aggregated effect sizes demonstrated significantly reduced global symptom presentation after CAT treatment, representing a moderate effect size. This is slightly lower than previous studies' estimates of moderate to large effect sizes (Ryle et al., 2014). Overall this shows initial positive treatment effects for CAT in reducing global levels of distress.

Interpersonal Difficulties

The results provide some commentary on difficulties with interpersonal functioning; this could be through experience of distress, through adjustment difficulties or perceived difficulties relating to others. Combined effect size estimates highlighted a significant moderate effect size in favour of positive treatment outcomes. This is the first study which has considered this outcome for CAT and so no comparison could be made to existing data. No further subgroup analyses could be conducted due to low study numbers. Publication bias data suggested a slightly reduced overall effect size, however still provides evidence for moderate overall outcomes within this category.

Depression

The results provide a commentary on depression and groups of characteristics linked to diagnoses of depression. The aggregated effect size for this outcome suggested a large overall effect size. Again, this was the first study to assess depression outcomes in CAT and so it was difficult to make comparisons.

Publication Bias and Study Quality

Publication bias data across the global symptoms and depression outcomes suggested an increase in overall effect size which provides more confidence to overall effect sizes. It should be noted that most of the studies included in the meta-analysis were of low study quality, which has been found to inflate overall effect size estimates (Cuijpers et al., 2016).

Summary

This research suggests that CAT is an effective intervention that produces moderate to large effects across a variety of outcomes and presentations. The review is the first to provide evidence for the effectiveness of CAT across multiple clinical outcomes and builds on previous reviews (Calvert & Kellett, 2014) which only focus on global symptom presentations. Assessing outcomes across different domains is important for targeted and prioritised treatment options (Kendall et al., 2004). The review highlights that evidence for CAT is at an early stage, with most evidence containing small participant numbers and not utilising randomised control procedures to more confidently establish conclusions. Nevertheless, this review highlights the beginnings of an evidence base which is suggesting positive treatment outcomes. This is supported by relatively low drop-out rates which suggest CAT is an acceptable treatment. In line with other reviews (Calvert & Kellett, 2014; Ryle et al. 2014), results highlight that further development of the CAT evidence base is warranted.

Critical Review and Limitations

The present review has limitations that should be carefully considered when evaluating conclusions. Firstly, the present review does not include a well-defined group of participants to whom the results apply. Studies contained a range of presenting difficulties and it is unclear whether a particular presentation or 'diagnosis' would provide more beneficial results for a particular outcome. The present meta-analysis does not utilise further statistical exploration methods to test these possibilities and at present, it seems studies are limited and do not sufficiently define or unify populations. Thus, clinicians are advised to consider the results of the meta-analysis along with specific idiosyncratic literature (including case studies) when reviewing the evidence base for a particular client or a particular presenting difficulty.

Secondly, the combination of measures within the present study could be considered problematic and limits the conclusions that can be drawn. Although psychometrics broadly measure similar psychological constructs, these are loosely defined and, despite research to highlight convergent validity, measures may have nuanced applications or comment on more idiosyncratic aspects of the overall category of outcome. Ideally a meta-analysis would incorporate the same measures onto one metric, as such, combining the variety of included measures weaken the conclusions that can be drawn for the overarching category of outcome (Puhan, et al., 2006). Although attempts were made to comment on effect sizes with and without measures which were in the minority, it is still debatable as to how much the combined measures can comment on the overall outcomes described. The review is therefore limited by the disparity of measures available in the CAT literature and the lack of consensus around their combination in meta-analyses.

Thirdly, participant numbers were consistently low across studies. Low participant numbers can inflate effect sizes and provide less accurate evaluations of between-study heterogeneity (IntHout, Ioannidis, Borm, & Goeman, 2015). Although the study did try to accommodate for small sample size (through utilising the J correction of Hedges G), results could still be considered an inflated representation of effect sizes. There were also a low number of included studies across all outcome measures. Low study numbers can contribute to issues around power, particularly when considering publication bias and moderator analyses (Guolo & Varin, 2017). Low study numbers limited the amount of moderator analyses that could be performed which in turn limits the assumptions that can be gleaned from the study. A further issue was the lack of studies comparing CAT to active treatments;

this is important for gaining a sense of efficacy of CAT compared to other treatment modalities (Bucher, Guyatt, Griffith, & Walter, 1997). The number of studies for adults for a range of presenting difficulties was low especially when considering similar meta-analyses for other treatment modalities (e.g. Tolin, 2010).

The study quality within the present review was also generally low. Poor study quality has been criticised for demonstrating less methodological rigour and contributing inflated effect sizes within meta analyses (Altman, 1994). This is a variable that should still be considered within future attempts to quantitively synthesise the CAT evidence base. Completing further moderator analyses as continuous variables may be more appropriate in future meta-analytic attempts if study quality does not improve.

Finally, due to a relative emphasis on pre-post measures designs, the overall effect sizes calculated are faced with various sources of uncontrolled error. As they are related, pre-post effect sizes should typically contain correlations between pre and post scores to improve the robustness of overall conclusions (e.g. Cuijpers et al., 2016). The present review imputed a fixed correlation value between pre- and post- scores which has been previously shown to inflate effect size estimates (Cuijpers et al., 2016). This is another factor limiting the results of the study. The limitations of the present review are helpful in considering how the evidence base might develop in a way that overcomes some of these difficulties and allows future meta-analyses to provide a more robust commentary on the overall evidence base.

Clinical and Organisational Implications

Firstly, the results provide tentative evidence that CAT is producing beneficial effects for individuals in routine clinical practice and provides some indication that CAT has some utility in clinical services. This adds to a growing body of literature which suggests relational therapies can be effective in reducing symptoms as measured by psychometric measures (e.g. Fonagy, 2015; Jakobson, Hansen, Simonsen, & Gludd, 2011). More specifically, the review suggests that CAT can be beneficial for general symptom presentation and levels of distress, negative consequences associated with interpersonal functioning and levels of depression. This adds to existing evidence which suggests CAT can be effective in reducing general symptom presentation (Ryle et al., 2014). The information can help to inform how appropriate CAT would be for an individual presenting with these difficulties. More specific difficulties or those not included in the analysis should be considered in line with alternative existing research. It should be noted that the present review has limitations (detailed below) which should be assessed before the effectiveness estimates provided in this review are cited, referenced or used for the rationale of an intervention.

The results of the review highlight an emerging but relatively small evidence base. It would clearly be beneficial for clinicians and researchers to contribute to this evidence base by providing either PBE or RCTs from clinical practice. The included studies provide precedents for how this might be attained and suggest such ventures are achievable. These initial encouraging results should also be considered by organisations who are supporting the development of research and highlight the need for support in establishing evidence for a variety of psychotherapeutic modalities.

Recommendations for Future Research

It is clear that more research is needed to be able to establish CAT as an effective and efficacious treatment comparable to other modalities that are routinely delivered in publically funded services. It is currently very difficult to compare the efficacy of CAT to other psychotherapies directly due to the distinct lack of available evidence via RCTs. The current evidence base suggests comparably greater numbers of practice-based evidence type studies across a range of presenting difficulties. It is important to continue the development of such research to allow greater clarity on the types of difficulties CAT may be beneficial for, along with providing greater confidence in the effectiveness of the approach in routine clinical practice. Increased high quality PBE (e.g. case series) and RCTs would help to provide a more robust understanding of outcomes which could propel the evidence base toward a furthered understanding of effectiveness and efficacy as discussed in the hourglass model (Salkovskis, 1995). Developing evidence in this way might allow for more confident conclusions to be drawn when combining data in meta-analytic methods.

Although the current study provides a basic commentary on dropout rates and treatment acceptability, future studies need to emphasis service user choice and preference trials to continue monitoring the acceptability of CAT in practice (Torgersson & Sibbald, 1998). The pre-post method used here has been heavily criticised (e.g. Cuijpers et al., 2016) and short and long-term follow-up needs to be built into the design of any future CAT trials.

The present review and previous systematic reviews have utilised the Downs and Black (1998) tool to assess study quality. This is helpful in evaluating randomised and nonrandomised trials, and although not ideal (due to exclusion of PBE) it may be helpful for future studies to construct designs and include information relevant to these guiding criteria. This would help to improve overall study quality and strengthen future conclusions. It would also be useful for pre-post studies to include correlations between pre and post scores to allow more robust calculations of effect sizes. It may be useful for future research to consider regularly systematically reviewing the evidence base and for this to inform the conceivability of future meta-analyses which build sufficiently on the present review.

Conclusion

Despite the outlined limitations of the present study, it has facilitated the suggested aims; gathering an up to date scope of the evidence base relevant to three measures of outcome and assessing overall effect sizes along with study quality and publication bias. This review could be seen as an evaluation as to where the CAT evidence base is and how this can be moved forward in a targeted and productive way. It is hoped the review can provide some unity in the vision of the developing evidence base to allow future consolidations of the evidence and provide more robust and inferential conclusions.

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Chapter 2: Empirical Paper

"Owning our positions and thinking our way through it": A Thematic Analysis exploring how Clinicians using Cognitive Analytic Therapy construct models, theories, adaptations and understand effectiveness when working with people with intellectual disabilities ²

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 $^{^{2}}$ This paper has been prepared for submission to the Journal of Applied Research in Intellectual Disabilities (see Appendix G for author guidelines).

Abstract

Background

A growing number of case studies and reflective accounts document the adaptations and ways of capturing change in Cognitive Analytic Therapy (CAT) with people with intellectual disabilities (ID). There have also been attempts to align the potentially radically social model of CAT and extend these to understand societal groups such as individuals with ID. No study has yet to provide a systematic exploration of how clinicians using CAT are adapting their practice, understanding models of ID or capturing effectiveness.

Method

Ten clinicians using CAT in community or forensic ID settings were interviewed about adaptations to therapy, their models of ID and their understanding of effectiveness using semistructured interviews. Thematic Analysis was used to analyse the data; three separate analyses were conducted for each of the main research aims.

Results

Two overarching themes were found for the CAT adaptations aim and one theme was found for both the models of ID and effectiveness aims – all themes had two or three accompanying subthemes. Results suggested clinicians were using their practice to address disempowerment for people with ID and individualise the model as a way of promoting engagement. Results also suggest CAT clinicians pragmatically utilise various models of ID to inform their interventions. Clinicians understood effectiveness as multi-level and multi-faceted and were attuned to capturing change in multiple ways.

Conclusion

The study is the first to provide a systematic exploration of clinicians' understanding of CAT adaptations, models of ID and effectiveness within their practice. The study suggests clinicians using CAT are concerned with the relational disempowerment of people with ID and see intervening in this as core aspect of their work, have a flexible pragmatic view of the nature of ID, and have a non-reductionist relational view of the nature of change in CAT therapy. Findings from the study could be used as a foundation to shape the application of CAT with people with ID in the future.

Key words: cognitive analytic therapy, intellectual disabilities, qualitative research.

Introduction

There have been numerous recent attempts from professional and government body guidance documentation (e.g. British Psychological Society [BPS], 2016; Department of Health [DoH], 2001, 2010a & b; Royal College of Psychiatrists, 2007) to increase the availability of a range of psychotherapeutic modalities for people with intellectual disabilities (ID). Positive Behaviour Support (PBS; Hassiotosis et al., 2009) and Cognitive Behaviour Therapy (e.g. Nicoll, Beail, & Saxon, 2013) are emerging as potentially helpful interventions. However, research suggests that the evidence base for therapy for people with ID is inconsistent and inconclusive (Koslowski et al., 2016). Recent drivers have aimed to increase awareness and influence of alternative approaches which may add additional benefits (BPS, 2016).

Cognitive Analytic Therapy

Cognitive Analytic Therapy (CAT) is a psychotherapeutic modality which is gathering evidence across populations (e.g. Calvert & Kellett, 2014; Hepple & Sutton, 2004; Ryle, Leighton, & Pollock, 1997) including individuals with ID (see Beard, Greenhill, & Lloyd, 2016). CAT is a time-limited, relationally based psychotherapy which centres around the concept of 'reciprocal roles'. Reciprocal roles are interpersonal patterns of relating to self and others which are internalised through early experiences with key attachment figures (Ryle & Kerr, 2003). CAT suggests that ingrained and inflexible patterns of relating can become problematic for individuals and lead to distress or 'symptoms' of mental health difficulties (Ryle, 2004).

CAT uses therapeutic tools (e.g. the psychotherapy file) to inform assessment sessions and letters are key tools used to 'reformulate' a client's difficulties and end the therapeutic process (Ryle, Kellett, Hepple, & Calvert, 2014). The model aims to highlight unhelpful patterns of relating, summarise these diagrammatically (into a Sequential Diagrammatic Reformulation; SDR) and then consider changes which might be made at different stages (termed 'exits'; Toye, 2009) to alleviate associated difficulties. SDRs are unique to the client's difficulties and could include aspects such as 'self-states' which refer to changeable senses of self and ways of relating (Ryle, Leighton, & Pollock, 1997). Often CAT practitioners are encouraged to select a structured 16 or 24 session course of therapy which usually involves two predefined follow up sessions (Ryle & Kerr, 2003). The variety of key components have helped shape the model into a discrete modality and as such, tools exist to rate therapists' core competencies in delivering the model (Bennett & Parry, 2004).

Use and Adaptations of CAT in ID Services

There is a small yet developing evidence base generally consisting of case studies (e.g. Clayton, 2000, 2001; King, 2000; Lloyd, 2007; Murphy, 2008; David, 2009; Smith & Wills, 2010; Frain, 2011) and reflective accounts (e.g. Lloyd & Williams, 2003; King, 2005; Collins, 2006; Clayton, 2006; Moss, 2007; Bancroft et al., 2008; Fisher & Harding., 2009; Wells, 2009; Greenhill, 2011) which provide some insight into how CAT is being used and adapted within ID services.

Many of these accounts link into the general literature on using therapy with people with ID which comments on use of generic and non-specific adaptations that can be made to facilitate improved outcomes. Beail and Johoda (2012) for instance acknowledge the importance of involving an individual's system in the process of therapy to help with knowledge retention and implementation. Willner and Goodey (2006) have commented on the need to reduce the complexity of information and support cognitive difficulties with the use of flip charts, agendas,

visual aids, role plays, and additional sessions. There is evidence of more specific adaptations linked to the CAT tools, therapy process and focus of intervention (Lloyd & Clayton, 2014; Beard, Greenhill, & Lloyd, 2016). The process of therapy may need to consider how an individual learns and develops, such as acknowledging an individual's Zone of Proximal Development (ZPD; Vygotsky, 1978) to maximise learning and psychological development (e.g. Moss, 2007; Frain, 2011). Other adaptations include the psychotherapy file which uses symbols and pictures to represent dilemmas and traps (Bancroft, 2010), SDRs which are simplified and supplemented with pictures (e.g. King, 2000; Wills & Smith, 2010), and reformulation and goodbye letters which can be audio recorded or presented pictorially (King, 2000; Wills & Smith, 2010). Other ways of exploring difficulties have been utilised such as using colour to name and express feelings (King, 2005), images, using objects as representations of relationships (King, 2000) and colouring in segments of a circle to depict the passing of sessions and contain boundary issues (King, 2005).

Case studies have also documented how the model can be used with a client's support network to increase understanding and emphasise the relational and systemic aspects of a client's difficulties, rather than locating this solely within the individual (Lloyd, 2011; Clayton, 2001). A client's support network may help to support exit strategies, retention of information or transitions and endings (e.g. Moss, 2007). Although these varying accounts and reflections exist, no study has moved beyond clinical anecdotes to arrive at a more systematic understanding of how clinicians are adapting and integrating CAT into their clinical practice.

Psychological Models of ID

CAT has a radically socially model of self (Lloyd & Pollard, 2019) which has implications for therapeutic practice. Although key concepts used in CAT like the ZPD have been developed from Vygotsky's research and work, little is currently known about how these ideas are used by clinicians practising CAT and the implications for their therapeutic practice.

Guidance from professional bodies has attempted to place a definition around the term 'intellectual disability' (often used synonymously with the term 'learning disability'; e.g. Department of Health, 2010a). Generally, these definitions converge around three key features: significant impairment of intellectual functioning, significant impairment of adaptive functioning and having experienced these difficulties pervasively since childhood (BPS, 2000, Division of Clinical Psychology, 2015). These definitions tend to arise from medical and biological models of disability, which suggest an intellectual disability is an observable, existing phenomenon which can be located within an individual and thus remedied, cured or supported with the relevant or appropriate medical intervention (Blustein, 2012).

This predominant model has been criticised by alternative approaches such as the social model which argue disability is created through society's lack of acknowledgement and flexibility in accommodating the needs of those with a range of abilities (Goodley, 2001). This can lead to the creation of social barriers which can impede participation (Bingham, Clarke, Michielsens, & Van De Meer, 2013). These models have been successful in providing social, cultural and political shifts (e.g. Owens, 2015) however they themselves have been criticised for operating at a macro-level and ignoring 'real-world' difficulties that individuals with ID might encounter and need support with (Palmer & Harley, 2011).

Alternative models have emerged which attempt to provide more complex understandings of disability; these include emphasis on biopsychosocial processes (McKenzie, 2013) and social and relational aspects involved in maximising personal growth (Reindall, 2008). Such understandings seem pertinent to the theoretical underpinnings of CAT, which acknowledge the genetic, temperamental and biological/neurological factors which might interact with social and attachment-based factors in influencing self-development (Ryle & Kerr, 2003). There is research to support genetic and biologically based explanations of ID (e.g. Ellison, Rosenfeld, & Shaffer, 2013) and research suggests factors such as the existence of a disability, loss and dependency might contribute to the psychological development of individuals (Hollins & Sinason, 2000). In CAT terms, such factors might contribute to the development of reciprocal roles (Ryle & Kerr, 2003; Greenhill, 2011). It is conceivable that such factors might blend and contribute to what we currently understand as an ID (e.g. McKenzie, 2013). CAT's ability to formulate on wider political and social levels (e.g. Lloyd & Pollard, 2019; Potter & Lloyd, 2005) also offers an interesting opportunity to comment on existing disability models.

There are some initial reflective and theoretical postulations which attempt to integrate the CAT literature into an understanding of what 'intellectual disability' means and how we might broaden our understanding of this concept (e.g. Greenhill, 2011). As yet, no study has aimed to gather a more systematic understanding of how clinicians using CAT might understand the concept of ID or related constructs such as intelligence. The study aims to provide an initial understanding which might contribute to existing models and theories and start to provide some further exploration of and critical engagement with these ideas.

Capturing Effectiveness

Effective treatment provision has been a priority of government policy documents in recent years (National Institute of Clinical Excellence [NICE], 2018). Definitions of effectiveness typically focus on the ability of a treatment to provide beneficial outcomes for service users under routine clinical conditions (e.g. Andrews, 1999). There is some acknowledgement that the use of established psychometric measures might be most appropriate in documenting change, improving service quality and securing service funding (House of Commons Health Committee, 2008; DoH, 2002). The emphasis on psychometrics has extended to use across ID services (Birrell & Dagnan, 2011), although there are a lack of available empirically supported measures that adequately capture change for people with ID (Vlissides, Golding, & Beail, 2016). Further accounts suggest a variety of assessment means such as service user, carer and colleague feedback might provide more meaningful information in monitoring and improving care (Coulter, Locock, Ziebland, & Calabrase, 2014).

Only one study in the CAT and ID literature has used a psychometric measure to comment on change post intervention (Lloyd, 2007). This may be linked to a less discrete way of categorising clinical symptoms in the CAT model (e.g. Ryle & Kerr, 2003). Case studies have provided anecdotal accounts of the possible benefits that therapy has provided (Wells, 2009; Frain, 2011; Lloyd, 2007). No study however has considered how clinicians are capturing and understanding effectiveness in their routine practice. Although it is acknowledged that service user involvement would allow meaningful development in this area (Crawford et al., 2011), the study initially aims to provide a more consolidated view of effectiveness given the relative infancy of the research area.

Summary of Aims

In summary, the current research study aimed to:

- Gain a more systematic understanding of how clinicians are adapting their CAT practice and which theories and models they are drawing on to support this process.
- To gain a more consolidated view on how clinicians using CAT understand the concept of 'intellectual disability' and to understand if and how CAT might have contributed to these understandings.
- To understand how clinicians using CAT understand effectiveness and are capturing effectiveness within their practice.

Method

Design

This qualitative research study employed thematic analysis (TA) which was used to systematically code relevant data into overarching themes and subthemes (Braun & Clarke, 2006). The analysis was predominantly informed by a critical realist perspective (Joffe, 2012). The study used semi-structured interviews to explore CAT practitioners' understandings.

Expert by Experience Consultation

Experts by experience in this case were considered clinicians who had used CAT with people with ID. The project was discussed with members of the CAT and ID Special Interest Group (SPIG) who shaped early research questions that were deemed relevant to advancing knowledge in clinically useful areas. Research supervisors for the current study were CAT practitioners who were involved in the design, analysis, quality assurance and final write up stages of the study. An external CAT SPIG member provided critical feedback on initial drafts of interview schedules.

Ethics

The research study was granted ethical approval by the University of Liverpool Research Committee on 21st February 2018 and Ethics Committee on 27th June 2018 (see Appendix H for Statements of Approval). All participants were given information about the study and gave informed consent before participating. Participants had the right to withdraw or request for their data to be withdrawn up until this had been transcribed and fully anonymised. All identifiable information including consent and debrief forms were password protected and stored
electronically on the University of Liverpool's secure storage system. Only the primary researcher had access to the electronically stored identifiable information.

Recruitment and Participants

All participants were recruited through the CAT and ID SPIG. Members were either emailed (Appendix I) or approached in person, given information about the study and inclusion and exclusion criteria (see Table 1) and were then asked if they would like to participate. If clinicians agreed, a convenient time and place was organised, either in person or through video conference calling software (see Table 2 for distribution of in person vs video conference interviews). Video conferencing software can reduce opportunities to establish rapport and limit the interpretation of non-verbal cues (Lo Iacono, Symonds, & Brown, 2016; Fontana & Frey, 2008). Conversely, however, it can allow a more comfortable environment and greater access to appropriate participants (Lo Iacono et al., 2016). The researcher made efforts to build rapport at SPIGs, through email and pre-telephone calls with interviewees as a way of maximising engagement and shares the view of Berg (2007) and Sullivan (2012) that use of video conferencing can outweigh the potentially confounding process issues.

Table 1:	
Inclusion and Exclusion Crit	teria

Inclusion Criteria	Exclusion Criteria
Must have a core mental health profession e.g. nurse, clinical psychologist.	Individuals without core profession training
Must either be a trained CAT practitioner or trainee CAT practitioner, have completed further training on CAT (e.g. CAT skills training) or must have undertaken CAT training during core professional training.	Individuals who have not received identified CAT training.
Must have worked with people who have an ID for at least a year.	Individuals with less than one year's experience working with people with ID.
Must have used CAT with people with ID for at least a year.	Individuals with less than one year's experience using CAT with people with intellectual disabilities.
Must be an English language speaker.	Individuals who cannot speak English.

Table 2: Interview Methods

Participant Number	Interview Method	
1	Face to Face	
2	Face to Face	
3	Video Conferencing Software	
4	Video Conferencing Software	
5	Video Conferencing Software	
6	Face to Face	
7	Video Conferencing Software	
8	Video Conferencing Software	
9	Video Conferencing Software	
10	Video Conferencing Software	

A variety of demographic information was collected as a way of contextualising the data, this included key information about professional roles and experience (Table 3). Key demographic information was captured and presented in Table 4. Selected information aimed to contextualise the information with relevant social characteristics (e.g. Noy, 2008) and asked for commentary on political stance due to CAT's inherently and ongoing political perspectives (e.g. Lloyd & Pollard, 2019).

Table 3:

Professional Contextual Information					
Participant	Practitioner status and year qualified	Job Title / Core Profession and work setting	Therapist experience working in ID services (1 - 10, 11 - 20, 20+)	Therapist experience using CAT with people with ID (1- 10, 11 – 20, 20+)	Frequency of CAT supervision received
1	Qualified in 2012	Clinical Psychologist, community setting	1 - 10 years	1 - 10 years	Monthly
2	Qualified in 2012	Principal Clinical Psychologist, forensic setting	11 - 20 years	11 - 20 years	Monthly
3	Qualified in 1983	Lead Clinical Psychologist, community setting	20+ years	11 - 20 years	Monthly
4	Qualified in 2000	Highly Specialist Cognitive Analytic Psychotherapist / Nurse, forensic setting	20+ years	11 - 20 years	Weekly
5	Qualified in 2013	Clinical Psychologist, community setting	11 - 20 years	1 - 10 years	Monthly
6	Doctorate training, trainee CAT practitioner.	Clinical Psychologist, community setting	1 - 10 years	1 - 10 years	Weekly
7	Qualified in 2016	Clinical Psychologist, community setting	11 - 20 years	1 - 10 years	Monthly

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8	Qualified in 2009	Consultant Clinical Psychologist, forensic setting	20 + years	11 - 20 years	Monthly
9	CAT skills training	Senior Clinical Psychologist, community setting	1 - 10 years	1 – 10 years	Weekly
10	Doctorate training	Clinical Psychologist, community setting	1 - 10 years	1 - 10 years	Fortnightly

Table 4:Demographic Information

Participant	Gender	Age Range	Does the	Broad	Religious	Political
		(30 – 40,	person identify	category of	status	Stance
		41+)	as LGBTQ+ or	Ethnicity		
			an ally?			
1	Female	41 +	No	Asian /	Religious	Liberalism
				British		
				Asian		
2	Female	41 +	Yes	White	Not Religious	Liberalism
3	Female	41 +	Yes	White	Not Religious	Socialism
4	Male	41 +	Yes	White	Not Religious	Socialism
5	Female	30-40	No	White	Not Religious	Liberalism
6	Female	30 - 40	No	White	Not Religious	Unsure
7	Female	30 - 40	Yes	White	Not Religious	Liberalism
8	Male	41 +	No	White	Not Religious	Unsure
9	Female	30 - 40	No	Black /	Religious	Socialism
				African /		
				Caribbean /		
				Black		
				British		
10	Female	40 - 50	Yes	White	Not Religious	Liberalism

Procedure

Participants were given an information sheet (Appendix J), either in person or through email and were given the opportunity to ask questions. Confidentiality and the right to withdraw were explained and clinicians then filled out a consent form (Appendix K) and demographic information sheet (Appendix L). Both forms were safely stored by the researcher or securely emailed to the researcher by participants. All interviews were recorded using a Dictaphone.

Each participant was interviewed using a semi-structured interview (Appendix M). Interviews lasted between 48 and 61 minutes. The interviewer kept to the core questions in the interview schedule however deviated from these and asked for further detail on specific points where deemed appropriate. This allowed a flexible and adaptive exploration of core topics whilst maintaining consistency (Kvale & Brinkmann, 2009). The interviewer made notes on the interview process (Appendix N) following each interview, particularly of key themes and concepts deemed interesting or pertinent (Braun, Clarke & Terry, 2014).

Two of the interviews were transcribed by the primary researcher as a way of immersing self in the data and familiarising self with emerging themes (Braun & Clarke, 2006). The remaining eight were transcribed by University of Liverpool approved transcribers. Each participant was given a unique participant number and this was used on all interview transcripts, consent forms and information sheets to maintain anonymity.

Data Analysis

The present study used TA to analyse all data at a primarily latent level which allowed commentary on underlying conceptual patterns of meaning (Braun & Clarke, 2006). TA allows researchers to systematically cluster related pieces of information which share meaning into overarching groups or themes grounded in the raw data (Braun & Clarke, 2012). TA is not tied to a particular epistemology, and so can be used flexibly, allowing non-prescriptive applications to be made as a way of most helpfully meeting identified research aims (Braun & Clarke, 2006).

To compliment this analysis, the study employed a critical realist epistemology (e.g. Harper, 2011) which suggests that real world knowledge can be captured and commented on in a justified way whilst still being historically and contextually contingent (Fletcher, 2017). The critical realist perspective suggests that an underlying truth exists, but that relationships or causalities between phenomenon can be explained by social powers or constructions which are less explicit and observable and more situated in individual contexts (Fletcher, 2017). The research acknowledges the context that CAT clinicians are situated within and their influence on potential responses (e.g. the National Health Service in which clinicians are working, relevant demographic information etc) and aims to situate thematic development within these contexts.

The analysis gathered themes that represented the greatest frequency of shared material across the whole set, as opposed to selecting perceived meaningful pieces of information. It was hoped that this would provide more robust and grounded results that could faithfully represent clinicians' voices and establish an accurate platform of evidence to build on, given the relative infancy of research in the area.

At the end of each interview, the primary researcher wrote ideas, reflections and thoughts down (See Appendix N); this helped to elicit knowledge, make links between pieces of information in the earlier stages of the research (Woods, 1999) and increase transparency and reflection (Watt, 2007). Prior to analysis, the researcher read and reread interview transcripts and reflective journals to increase familiarity and facilitate a conscious approach to analysis (See Appenidx O; Braun & Clarke, 2006). Analysis followed the six-step approach outlined by Braun & Clarke (2006) as a way to iteratively and thoroughly centralise representative themes and subthemes across the data set. Initial codes were refined into larger codes if they were not substantial enough across the data (see Appendix P for an example). NVivo Pro software (version 12) was used to analyse data; sentences were coded (Appendix Q) and then subsumed into larger superordinate themes which most representatively captured the wealth of data collected. Data was considered multiple times and discussions with the research team allowed critical consideration of the themes developed (see Appendices R, S and T for an example of the theme development process). Once a list of themes had been developed, these were checked against original transcripts to ensure they were grounded in the data.

Quality

Several frameworks have been created to assess the quality of qualitative research (e.g. Seale & Silverman, 1997; Engel & Kuzel, 1992; Guba & Lincoln, 1982), other papers have provided guidance specifically for TA approaches (e.g. Nowell, Norris, White, & Moules, 2017). Generally, frameworks focus on notions of credibility, transferability, dependability, confirmability, audit trails and reflexivity (e.g. Guba & Lincoln, 1989). The current paper draws from a range of methodologically specific and non-specific frameworks to provide a breadth of quality assurance methods which are summarised in table 5.

Quality assurance principle	Evidence presented in the current research		
Researcher owning their perspective ^{1, 2}	A reflexive statement is provided in appendix U.		
Situating the sample ¹	A wide range of professional context information and demographic information is available in tables 3 and 4.		
Using direct quotations to support theme development ¹	The four themes and accompanying subthemes are accompanied by key supportive quotes to exemplify points.		
Triangulating theme development ^{1, 4}	Theme development process discussed, refined and redefined iteratively through supervisor feedback and input.		
Credibility Checks ^{1, 2}	Overall themes discussed with expert by experience		
Audit Trail ^{2,4}	Examples of the coding and theme development process can be found in appendices P, Q, R, S and T. Reflective journal entries made throughout the process (See Appendix V).		
¹ Elliot, Fisher, & Rennie (1999); ² Nowell et al (2017); ³ Yardley (2000); ⁴ Yin (1989)			

Table 5. Quality assurance principles and their accompanying frameworks

Results

A separate analysis across the whole data set was completed for each of the overarching research aims and as such the analysis has been presented within three separate thematic maps and three separate sections for ease of reference and clarification.

Adaptations

Two overarching themes and five sub-themes were developed to address the first research aim: to explore how CAT clinicians report adapting their practice.



Figure 1: Thematic Map of themes related to the adaptations clinicians reported making to their CAT practice.

Theme 1: Actively and fluidly individualising the structure and process of therapy.

Throughout the data set, clinicians acknowledged that the process and structure of therapy needed to be highly individualised and was often tailored to the individual client and their context. Clinicians described utilising intuition and *"clinical experience"* (P2), a variety of

clinical theory, adapting the structure and process of their therapeutic practice in an *"idiosyncratic"* (P3) way and ensuring their adaptations were relatable yet *"faithful"* (P10) to CAT's theoretical framework. Although their accounts often centred around the individual therapeutic process, clinicians described adaptively expanding the process and individualising this for the client's system where necessary.

Subtheme 1: Pragmatic application of clinical knowledge. A large proportion of the data set contained reference to the pragmatic application of clinical theory, intuition and experience. All ten of the CAT practitioners described drawing on a range of clinical theories to pragmatically shape how the therapeutic process would meaningfully progress. A large range of theories were cited across all participants and a selection is presented: *"Gestalt"* (P2) principles and role plays were used if the client had difficulties with theory of mind, blending CAT with PBS principles if this was already embedded within a staff team context (P5 and 6), using psychodynamic theories to enhance clinical understanding (P3, 4, 9), knowledge of behavioural phenotypes to formulate difficulties (P3) and using attachment theory to consider relational dynamics (P1, 2, 5, 6, 7, 8, 9, 10). Several clinicians (P2, 4, 5, 8, and 9) also spoke about their clinical experience guiding therapy rather than a manualised or prescriptive approach.

"...it's like clinical experience as well ... more than the theoretical" (P2).

"... it's kind of practice based and evidence based I guess" (P9).

Subtheme 2: Client centred structure. Clinicians reported a "*huge range*" (P3) of variability in the structure of their CAT practice. They reported adaptations to the stages of therapy, the overall length of therapy, the length of individual sessions, the endings and follow ups and the amount of involvement from clients and staff team (or the "*therapeutic change points*" as termed by P3). Although the length of individual sessions were consistently different, some clinicians (P2, 3, 4, 5) would contract a variable but set number of sessions between clients as a way of increasing the predictability of the ending. Others (P 1, 7, 8, 10) would adapt and extend their practice if it was considered beneficial for the client. All participants described adapting some aspects of the structure of therapy depending on the individual client and their needs.

"...sometimes it's about chunking the information in smaller sessions which really extend the length of the therapy ... I would not move onto the next stage of therapy until I know the client had grasped that ... If we've not developed a couple of target problem procedures and the client isn't aware of that, then I wouldn't be progressing". (P10).

"I've had clients that only come for about half an hour or fifteen minutes ... and go out for cigarette breaks because it gets too much ... but then kind of builds up to an hour" (P1).

"So what I've done with one individual is I've given her tokens ... I've said to her "right, ok, I've got you these tokens so when you want to see me for a follow up session you give me a ring and we'll swap the token" ... I said "let's try and use them in 6 months". (P6). Subtheme 3: Framing the model in a relatable yet faithful context. This subtheme referred to CAT clinicians' propensity to adapt the tools and process of CAT therapy in individualised ways that "have meaning for [clients]" (P1). This included using clients' interests such as "zombie drama" (P10) characters to recognise self-states, "superheroes" (P1) and "wolves" (P8) to enhance SDRs, the "Michelin Man" and "deflated tyre" (P2) to represent reciprocal roles and a "petrol station" (P3) to represent emotion. At the same time, clinicians made conscious attempts to ensure their practice stuck to the underlying CAT principles.

"...I think it needs a lot of conscious effort ... it's a balance being as adapted as you need to be whilst adhering to the model ... I don't necessarily think adhering to the model and major adaptation are at opposite ends of the continuum ... as long as you are very clear on the model you will be able to ... adapt" (P10).

"I'm trying to stick to those principles of CAT even though within it ... I'm doing adaptations" (P8).

"I think sometimes we're adapting the work so much to the individual ... it's hard to stay a bit truer ... to ... the theory side ... I'm inclined to make things simpler ... and then find it hard to chain that back up ... to what was the theory in the first place, ... having a supervision group where other people are working in ... kind of pure CAT, ... that is actually quite helpful for me". (P5).

An important finding within the research was that seven clinicians reported that the adapted psychotherapy file was not a helpful or relatable tool within therapy. Participants

described this as "fairly abstract" (P3), "complicated" (P4), "quite difficult ... quite distracting" (P5) and as being "limited really in the value that [it] add[s] to therapy" (P7).

Theme 2: Establishing a manageable relational world. CAT clinicians consistently described a model of therapy which not only involved working on a one-to-one basis with clients and adapting individual tools and techniques within this, but also incorporating the client's support network as part of the therapeutic process. Clinicians reported utilising "*systemic* ... *resources*" (P1) to support ongoing implementation and "*scaffolding*" (P6) for the recognition and revision stages of therapy. They also saw their role as directly enabling the system to understand its own involvement in the continuation of difficulties and consider how the system's relational positions could be made "*reliably consistent*" (P9). The therapeutic process, therefore, involved intervening with both the individual and system and aimed to create "*compassionate* ... *understanding*" (P6) and responsive approaches, implemented in an "*equalling*" (P7) way to "*help the client* ... *manage their difficulties*" (P1). These concepts were captured across two interlinking subthemes:

Subtheme 1: Building relational equality. Inherent in all of the participants' transcripts was an underlying sense that clients were existing within unequal relational systems, in which clients were often *"less powerful"* (P9) and *"subjugated"* (P7). Clinicians noticed these unequal relationships and were using CAT therapy to actively balance levels of power within a system. This was often achieved by enhancing the client's sense of autonomy and independent or collaborative decision making:

"I might ask the person why they've come to see me and usually they don't know because they've been brought, sometimes I get a phrase like 'oh to be more independent' ... which is what they were told at the review by ... social services ... I'm kind of aware of who's doing the talking ... who is the person that's speaking to me" (P3).

"I usually like to meet with the person on their own ... so that they're not disempowered or acquiescing to having their carers present ... so that it really is an informed decision and they can be open with me" (P7).

Addressing inequality was also achieved by supporting the system to identify and address how they might be contributing to unequal ways of working or operating:

"Sometimes due to cognitive limitations or due to the extensiveness of some of the kind of reciprocal roles that people with learning disabilities find themselves in erm they're very disempowered, they're very subjugated they don't feel always like erm they have agency or control in relationships. So even if the client does have the cognitive ability to retain erm sort of recognition and revision themselves that can really destabilise the people around them erm, so I'd absolutely make sure that their network has an understanding of erm the key reciprocal roles" (P7).

"I think, the systems around people sometimes are tricky to work with ... the client can make lots and lots of changes, how they act, how they behave and how they respond ... where the system around them doesn't want them to do that, then it's not gonna be maintained" (P5). Subtheme 2: Building relational coherence and predictability. Clinicians continually referred to utilising the CAT model across an entire system, often developing an SDR as a way to develop a "shared language" (P8) or "shared understanding" (P9) for all individuals involved. Clinicians described the SDR as "a containing tool" (P6) which was particularly "grounding" (P8) for staff members. The SDR provided a framework for staff members to feel in control and conscious about their relational positioning and how to adapt this to become more helpfully attuned to the client and their needs.

"...but those complex individuals often don't come through for therapy at that moment and you're working more then with a staff team and multi-agency approach so that's where I would use the CAT at that, at that point so for, for example the people who are on our dynamic support database it might be that CAT isn't just at that moment when people are in crisis we wouldn't really consider individual one-to-one therapy until things are perhaps a bit more stabilised. But I would still use CAT maybe as a containing tool for staff team." (P6).

"So these people who kind of manage to create quite a lot of chaos quite quickly and as a support worker you can feel quite out of control because nothing you do seems to work with that. It feels like everything you try and do just doesn't bring it back down and sometimes if you can see that that is just the way that this happens, it's not anything that you've <u>done</u>, this is just the pattern that this person has always had, that in itself can make you feel a bit more grounded and in control when it's happening. And also it might help you if you can start to see well actually this <u>does</u> tend to work, you know you've got that to fall back on." (P5).

"I think that kind of forms ... a common language and a common ground actually for us all to work from" (P9).

CAT clinicians also found the SDRs particularly helpful as a "*framework*" (P6) to help "guide" and "structure" (P4) the client's relational world in a "concrete" (P1) way. SDRs and diagrams seemed to provide a "tangible" (P5) and externalised framework which seemed particularly helpful for clients. Increased system stability also contributed to the client's sense of relational predictability which was a further stabilising factor. Clinicians would also often develop a clearer definition and boundary around relationships as a way to increase relational predictability:

"I just think it is so helpful, its so (.) concrete for them erm so the way that they can see the the diagram so the sequential diagrammatic reformulation the CAT diagram I think is so helpful for them because it's so concrete, it makes things very little for them". (P2).

"I mean most of the time [the ending] has always been in sight – it's been in sight from nearly the word go (.) maybe session two, session three we've mentioned that we've got this many sessions left and we're trying to do this before the end of the sessions and there are pictorial elements to kind of help people understand that so you've got pie chart, a pie chart you know cut up and you can count them down or just erm putting a session on a piece of paper and counting down from there" (P4).

Models of Intellectual Disability



Figure 2: Thematic Map of themes as to how clinicians construct models of ID

Themes: Pragmatic understanding based on intervention possibilities. Across

interviews, there was no clear sense of a key and consistent model that CAT clinicians drew on to conceptualise and inform their understandings of intellectual disabilities. Their understandings seemed to span across three key areas described below, and their conceptualisations seemed to link to pragmatic methods linked to intervention opportunities.

Subtheme 1: Model grounded in BPS definition. Clinicians described a model of intellectual disability that linked strongly to the BPS definition of ID. BPS documentation makes reference to ID in three key areas: significant impairment in intellectual functioning, significant impairment in adaptive functioning and with the onset of these difficulties being present before adulthood (BPS, 2000). Participants' accounts at times explicitly (P1, 2 and 4) and times

implicitly (P3, 5, 6, 8, 9, 10) made reference to real world cognitive difficulties and how these could lead to practical difficulties in day to day functioning:

"If you were going to strictly of the BPS definition it would be an impairment from birth. Erm (.) and (.) an IQ of 69 or below and adaptation like difficulties in (.) social and occupational functioning that's how I understand it as a whole" (P2).

"I think in terms of intelligence, what I see where our clients really struggle is that fluidity of being able to navigate through life without the support of other people and I think that's where some of the cognitive deficits really hinder people's opportunities" (P6).

Subtheme 2: Relational Definition or Model. Unsurprisingly, all 10 CAT practitioners drew on relational models of ID and typically commented on relational enablement and relational contexts as being important in how intelligence might be valued or utilised.

"I do genuinely think that it's quite fluid and it's quite relational, so it depends on who you are talking to at the time ... about where the intelligence lies." (P5).

Clinicians consistently described relational knowledge and ability as being central to how *"enabled"* (P10) and *"independent"* (P1) people with ID could be.

"If you put people daily in a relational world ... they can either - with good support, people with learning disabilities are much more able and their learning disabilities become smaller and then obviously the opposite" (P10).

"sometimes clients start to do really well ... and what happens is that social care come along and go 'oh they're doing amazingly ... let's cut the package of care' but what they're not realising is that the individual is only doing well because of the package of care that's in place ... there's sometimes assumptions made that because they've now learnt these skills that actually we can take everything away ... it just doesn't work like that" (P6).

Subtheme 3: Social Power or Value. A number of CAT practitioners also commented on the societal aspects which have contributed to their understandings and constructions of how they understand the concept of ID. Clinicians firstly commented on how people with ID are "subordinated" (P7) and "inferior" (P9) members of society:

"Learning disability to me is a social construct that we as society have ... constructed to ... put people aside and say oh you don't belong here ... you can't do this or you're constrained by your condition." (P4).

Many of the clinicians expanded on this construct to suggest that the concept of ID had been created as a way "*classifying*" (P8) and "*dehumanising*" (P4) people and to expand and maintain societal powers through forming a separate and subordinate "*other*" (P9).

"Intelligence is an enduring quality or trait and that we would you know it's relatively fixed and so you couldn't necessarily become more or less intelligent in, in years to come erm (pause) it's just I don't know what word I would give it. I think it's just something that that we've learnt to make decisions by isn't it really. Something that helps to maybe impose some level of understanding control, power (pause) at least to one side. To one end of the [reciprocal role] pole." (P9).

These concepts were accompanied by a sense that the construct of ID had emerged to in the context of the values emphasised by the modern western world:

"I think we are making more people learning disabled and we're doing that because of the technological and skill demands that are placed on people that people showing up you know because they can't read they can't drive, they can't operate an I Pad, they can't do the fancy you know how an I Phone works. Can't surf on the internet, can't do all the things which would not have shown up in the slightest in a more agricultural society." (P3).

And I'll often, I'll often say things like you know, if we have some sort of apocalypse and we're all fighting off the zombies, who's going to be more useful in that circumstance? The people who know how to write the internet or the people who can build a house? You know because you might think oh well these people have got three PhDs, look how clever they are and a bit you know, a bit more demeaning about manual jobs but they're not gonna save us from the zombies are they" (P5).

"it's a social construct and it's a diagnosis ... that ... measures people's ability to meet the requirements of the type of society that we've developed" (P7).

Effectiveness



Figure 3: Thematic map providing themes relevant to how clinicians captured the effectiveness of their practice.

Themes: Awareness of and responsivity to the multi-level nature of change.

Throughout clinician accounts, there was no one unifying and clear method of assessing therapeutic change. All ten clinicians reported a multitude of assessment methods to capture evidence of change. At times this centred around the client and how change had occurred at an individual level, at other times this was relevant to the system and their levels of responsiveness. What was central to most of the CAT clinicians was that locating change solely in psychometric measures or those linked to individual symptoms of mental health difficulties were viewed as *"very weak"* (P3), *"not necessarily that valid"* (P7) and *"meaningless"* (P8). Clinicians thus aimed to use alternative methods to supplement the use of psychometrics where possible and tended to focus on these only when helpful for the client or the service context.

Subtheme 1: Achievement of a relationally attuned and cohesive system. Although explicit references were at times made by clinicians, their accounts often implicitly centred around how the system's ability to function around the client was an important indicator of therapeutic change. This centred around the system being able to acknowledge and respond to client's relational patterns, along with consciously owning positions and refraining from being "pulled into" (P7) ongoing unhelpful relational patterns.

"Then so again, working in a way that isn't just one to one therapy with the person and really making sure that the reformulation, recognition and revision is something that's happening across the network as well ... so people are, people are understanding the person's distress in a new way and revising their responses." (P7).

"It's almost like what you're asking in CAT is you're asking us all to ... take up positions, own our positions and think our way through it." (P8).

Subtheme 2: Evidence of flexible relational agency within the client. This subtheme referred to an implicit sense that an effective therapy was one in which the clients had developed greater understanding of their position in relationships with others and felt that interpersonal interactions were more "*in their control*" (P2). This could be conceptualised as the revision stage of therapy, in which, through independently owned and implemented 'exits', clients were "*enabled* … *to break the cycles*" (P10). Clinicians seemed to assess this therapeutic change in numerous ways, often through considering to what extent a client had maximised their own sense of independence and autonomy outside of therapy, through intuitively gathering a subjective sense of felt change within the therapeutic process, and the client taking ownership for their role in implementing therapeutic understanding or exit strategies.

"I live for the day when they come back into therapy and they say I've done it, I didn't do what I always do." (P10)

"What he'd actually rung up to tell me was that he'd got a job (.) and he was maintaining his relationship with his brother, that he'd managed to fix during the course of therapy and that he felt in control of that." (P5)

"People engaging in life in a different way that perhaps they hadn't done before ..." (P6)

Subtheme 3: Expanding on reductionist or symptomatic assessment of change. Many of the clinicians commented on how they would use psychometric or symptom focussed measures of change as a requirement for their service, whilst others acknowledged that these could be helpful in certain contexts.

"I do try to use a measure if I can erm, again it would depend a little bit on the person and how, what their level of reading ability is, or what their level of cognitive ability is erm so sometimes I would use a measure erm but ultimately really I think if I'm honest with myself I use that because it's a mandatory requirement of the service." (P7). "I always share the outcome with clients. I might not do the initial one with them but when, when we do post measures I will always share, look this is where we started at and this is where we're at now and I think it's a great benchmark for individuals to see, you know often they've made huge progress or sometimes we can say well yeah, things are maybe still just as bad but we can think about other things that have changed even though this hasn't" (P6).

What was more obvious across all participants' accounts was an acknowledgement that such methods were not sufficient and that other methods were often used to supplement these or used to create a more expansive view of where evidence for effectiveness might lie. This included "verbal feedback" (P1), receiving CAT "referrals from … unit managers … psychiatrists" (P2) "staff feedback … questionnaires" (P5) and requests for further CAT "consultation sessions" (P8). Clinicians also noticed idiosyncratic aspects of change within and between systems and were active in noticing these.

"You know so I've tried things like ...looking at target problems and what the reciprocal roles were ... looking at the depths and breadths of problems and the chronicity of them ... what's ... moved and what hasn't' moved within that. You know putting it all within a systemic context erm I think it's quite an art" (P3).

"Things that we're measuring are often so kind of heterogeneous that it's like well actually what's an improvement for this person isn't an improvement for the next one and how do we capture that on a form? I do really struggle with kind of outcome measures." (P5). "I do think they're important to, to monitor some sort of change ... because I think, therapy isn't that, it isn't that obvious is it you know when people go through the therapeutic process it isn't always that obvious around where, how, what's changed" (P6).

Discussion

The study aimed to consolidate the reported practice and understandings of multiple clinicians using CAT in ID settings and consider how they are adapting their practice, how they understand the construct of ID and how they are capturing effectiveness. These aims have been addressed within three separate analyses encompassing four overall themes, each with an accompanying two or three subthemes.

Adaptations

The results suggest that clinicians are using CAT in flexible and client centred ways and adapting the model to increase connection and responsivity to the therapeutic process. A particular emphasis was paid to the importance of SDRs in creating a concrete and tangible basis for the client and as a containing tool for staff members. This coincides with previous case studies which highlight the importance of a collaborative and personalised SDR (King, 2002; Lloyd, 2007, Frain, 2011). The research builds on previous accounts by suggesting an active and intuitive process of individualising which requires the use of multiple tools, models, and theories to actualise a client's engagement. This also incorporates changes to idiosyncratic adaptations to the structure and process of therapy, involving changes to the length and format of sessions and how follow-ups are utilised. Results coincide with literature which expresses the importance of adaptions to suit individual need for people with ID (e.g. Willner & Hatton, 2006).

One key finding within the research is that CAT clinicians were invariably utilising the client's system, not only to enhance the scaffolding of exits generated in one to one therapy, but also as a way of stabilising and maintaining relational outcomes. Interestingly, clinicians seemed to see addressing disempowerment and balancing relational dynamics as a key part of their intervention. This is supported by reflective accounts which describe the importance of

acknowledging and working with inherent notions of systemic power (Moss, 2007) and adds to accounts of systemic training and intervention (Murphy, 2008). The results coincide with a growing movement which aims to move away from the 'professional gift' model (Duffy, 2009) into approaches emphasising collaboration, choice and control (Whaley, Di Domenico, & Alltimes, 2018) which seems highly congruent with the underlying principles of CAT (Ryle & Kerr, 2003).

Models of ID

The main finding from the analysis was that clinicians using CAT reported no consistent model of ID; models were often described without acknowledging a clear framework and rarely did clinicians expansively discuss theories or models relevant to the CAT framework (such as Vygotsky's [1978] ZPD). Clinicians much more readily drew from models which had pragmatic implications - accounts of BPS definitions (e.g. Division of Clinical Psychology, 2015) for instance suggest 'real world' and practical understandings which can be used for pragmatic effect for people with ID. The relational and social emphasis also point towards how working relationally with systems and thinking about higher order influence might ultimately support individuals with ID. This is in line with practical frameworks which emphasise multi-level points of intervention in the role of clinical psychologists (BPS, 2007, 2009). The results coincide with attempts to provide a more contextual perspective on ID (Goodley, 2001) and move away from concepts which primarily emphasise Intelligence Quotient scores, genetics, organic aetiologies or behavioural phenotypes (see Hubbard & Hare, 2015; Dykens, 1995) which have been criticised for reductionist and subordinating influences (Degener, 2016). The results tie into broader societal movements which aim to move away from diagnostically and psychiatrically led systems

and emphasis individual experience and meaning as key influences (such as the Power, Threat, Meaning framework; Johnstone & Boyle, 2018).

Interestingly, various other conceptualisations and models of ID or intelligence were much less consistently or apparently discussed or considered. These include, but are not limited to, ideas of societal pity and emotional responding to disabilities (e.g. Goodley, Liddiard, & Runswick-Cole, 2018), biological determinism and its influences (Gould, 1981), concepts of crystallised versus fluid intelligence and its function (Cattell, 1971) and critical disability concepts such as differences between impairment and disability (Goodley, 2013). Clinicians' accounts tended not to draw out the theoretically, philosophically, ethically or critically rich aspects of any particular model and instead, their accounts centred around pragmatic and focussed narratives grounded in core existing models. This could be understood in numerous ways; it could be that clinicians were unaware of either entire alternative models of disability, or some of the nuanced arguments surrounding such models. Clinicians may have been aware of these but were reluctant to draw from them, potentially due to reductionist or controversial aspects of the models (e.g. Anzivino et al., 2013). It may have been that clinicians did not have enough time to fully reflect and bring to mind such theories. It could be that clinicians had an ambivalence to the use of such theories or did not feel able to describe them due to a potential lack in intervention opportunity. What did seem apparent in clinicians' narratives was that pragmatism was important, adding to a growing sense that intervention at societal and individual levels is important in promoting and engendering change (Race, 2012).

Effectiveness

The main finding apparent within the effectiveness analysis was that clinicians were considering the effectiveness of their practice at both individual and systemic levels and that they were expanding beyond psychometric and symptomatic measures to idiosyncratically capture effectiveness. Along with studies which have criticised available psychometric measures for people with ID (Vlissides et al., 2013) these findings suggest that concentrating on psychometric measures which focus solely on the individual are unrepresentative and inadequate for client's and systems who are involved in CAT. The results are consistent with the limited use of psychometrics to establish change in published CAT and ID studies (only one identified; Lloyd, 2007) and several others using less formal and idiosyncratic methods of capturing change (e.g. Clayton, 2010).

The results of the current study suggests that change can exist in an inter-relating and multi-level fashion. It also suggests that it is the alignment and cohesiveness of different levels (how they relate to one another) which is significant in reducing distress and improving quality of life for clients with ID. Widening the view of change seems an important point of action from the current research. How this could be meaningfully implemented given the extensive reliance on individual psychometric measures to drive service quality and recommendations (e.g. NICE, 2018) is a key area for consideration moving forward. It will be important for clinicians to develop assessment means which stay true to some of the processes described in the paper / future research, but also stay aligned enough with government guidance and alternative evidence bases (e.g. Hassiatosis et al, 2009) to have influence in an impactful way. This may be through developing alternative and nuanced measures (as discussed in the clinical implications section), using idiosyncratic measures which have shared scales of measurement (e.g. clients rating their identified goals on a Likert scale; Willner & Hatton, 2006) or developing more robust and testable frameworks centred around principles which have arisen within the present study / future research.

Strengths and Limitations

The current study is the first to systematically explore CAT clinicians' constructions of adaptations, models of ID and methods of effectiveness. It is the first study to centralise an understanding across individual practitioners to arise at a more robust understanding of the research questions explored and presents an array of novel findings. A key strength of the study is that it was developed with clinicians who use CAT in clinical practice and was therefore is clinically relevant and provided a contribution to an evidence-base in its infancy. The study aimed to provide transparency, where possible, and detailed demographic and professional information as a way of increasing study quality. Likewise, key aspects of the analytic process were documented and an audit trail was recorded to help to increase transparency around the study's eventual conclusions.

The study faced various limitations, however. Firstly, individual characteristics and influences may have impacted on overall results. A reflexive statement was written, however the researcher may have overlooked or not fully considered certain areas of influence which could have skewed the overall results. It should also be acknowledged that the current study only provides evidence of clinicians' accounts of their practice and therefore cannot be verified.

Clinicians were primed at the beginning of interviews to draw on multiple elements of practice and a varied range of theory. Clinicians' accounts may naturally have gravitated towards more recent examples as they were easier to recall, or there may have been limited time to fully reflect on the range of case work completed. Another influential factor in clinicians' accounts could have been the relative prevalence of clinical psychologists – Doctoral training often equips

clinicians in multiple models and this could have influenced conceptualisations (particular the multiple and flexible use of theories described in the results section). There were only two males in the sample which could have influenced overall perceptions of social issues (Carli, 2001). Clinicians were generally from socialist or liberalist backgrounds and these factors may have influenced or guided their responses when considering power inequalities rather than being an implicit aspect of the CAT model itself. Finally, the use of video conferencing software may have influenced the interview process and contributed to a less authentic data set (Hanna, 2012).

It is also acknowledged that at times, the codes used to assemble the themes and sub themes were not equal in weighting, these did, however, capture more nuanced aspects which seemed pertinent to overall concepts described by clinicians.

Clinical Implications

Adaptations. The adaptations analysis suggests that CAT practitioners are deviating from the original CAT framework in various ways, namely by creating a highly individualised process and structure and involving systems as a way of centralising understanding and reducing power inequalities. This partly suggests that focussing on empowerment is a hallmark of CAT for people with ID. This has interesting implications for the CAT and ID model of therapy. Traditionally, CAT competence is assessed using the measure of competence in CAT (CCAT) assessment tool (Bennett & Parry, 2004) which asks an evaluator to rate various aspects of the clinician's ability to provide individual therapy which is faithful to the CAT model. The present study suggests a divergence from this framework in ID settings and suggests a more nuanced and multi-level platform for assessing practitioner competence might be developed to consider competence within an ID context, although future research may wish to consolidate findings further before this is implemented.

Results suggest that gaining a sense of clients' interests will be important in making the model relatable. It also suggests that there should be flexibility and adaptability within the model and that this should not be adhered to rigidly. Clinicians may want to be particularly mindful of power imbalances between people with ID and their systems and think about using CAT tools to address these where possible. Importantly, the results suggest that the adapted psychotherapy file may not be a useful tool within therapy and strongly suggest further revisions may be needed if this is to be utilised by clinicians.

Models of ID. The findings contribute to a growing body of literature which aims to conceptualise ID with a view to considering useful intervention opportunities. The research suggests that clinicians in ID services might have a role in facilitating change at multiple levels, individually, relationally and societally. The CAT model seems elegant in capturing relationships at micro and macro levels (Ahmadi, 2011) and may be a useful framework to capture and present a formulatory understanding as a way of informing intervention. The study adds to literature which reframes and re-emphasises non-biological and more relational aspects of ID which can help to reduce reductionism and stigma (Shakespeare, 1998). This may supplement social justice groups' (Goodman, 2000) understandings of how mental health and disabilities are conceptualised and suggest clinicians may contribute actively towards social change along with working systemically and individually to contribute to intervention opportunities (Lloyd & Pollard, 2019; Ryle, 2010).

Effectiveness. Results suggest that relying on individual psychometric measures might be unwise if evaluating CAT in ID contexts. Effectiveness was conceptualised as a much more

fluid and inter-relational phenomenon. It might therefore be helpful to develop a more structured multi-level framework for assessing change across individual and systemic levels. Although the Helper's Dance checklist (Potter, 2013) exists, this currently aims to reflect with staff members around their relational positions, rather than explicitly 'measuring' aspects of relational change. Developing this tool into a measure could capture some of the dynamic relational changes alluded to within this paper. The results also highlight relational agency within clients as an important construct of focus. Although measures such as the Inventory of Interpersonal Problems (Horowitz, Alden, Wiggins, & Pincus, 2000) exist, these seem to focus more on interpersonal difficulties, rather than agency and ownership per se. More research to define and conceptualise the concept of flexible relational agency, with the input of service users would be helpful in moving these concepts forward into the development of a testable measure.

Broadly, if a framework could provide a more standardised consideration of change incorporating factors at multiple levels, it could help to guide clinicians' evaluation process whilst hopefully allowing for idiosyncratic assessment methods where needed. Results are important for service users who may feel less individually responsible or identified as the focus of change, allowing for a wider appreciation of how disability or mental health difficulties might exist (Masterson & Owen, 2009). Results are also important in allowing fellow clinicians, trainees and less experienced clinicians to acknowledge and actively seek out change in multiple areas and not to evaluate their efforts on a single point of therapeutic change.

Future Research

Adaptations. One of the key findings within the current study was that the psychotherapy file had limited utility in clinical settings. Future research may wish to

collaboratively develop a new and meaningful psychotherapy file alongside service users who can shape this into a valuable and meaningful clinical tool. Gaining a sense of service users' perceptions of the usefulness of CAT tools and process would help to ground results in a more meaningful context. Other research may want to go beyond practitioner accounts of practice and provide more methodologically and ecologically robust means of assessing adaptations (e.g. analysing video recorded footage of practice).

Models of ID. The current study suggests that a model of ID can be understood by and linked with a psychotherapeutic model. Future research may wish to explore how clinicians using CAT in non-ID settings understand the construct of disability and / or mental health as a way of triangulating and further validating the results of the study. As the sample was mainly clinical psychologists, it would be useful to repeat these methods on other mental health professionals working in ID settings. Finally, it would be useful to focus a future research study around the concept of intervention and think more carefully about how and in what ways clinicians using CAT might intervene at the three levels identified.

Effectiveness. Findings of this study suggest that a coherent and predictable system along with flexible relational agency in the client may be useful factors to consider when assessing effectiveness. As mentioned above, developing and testing measures for these constructs might be helpful. It would also be useful to consider how these results differing in different contexts and settings (e.g. with older people) to see if these findings are uniquely associated with people with ID, or whether this reflects a broader discussion around conceptualising effectiveness more generally.

Conclusions

Results suggest that clinicians are actively adapting their CAT practice to increase accessibility and incorporate members of a system. This was with the aim of reducing power imbalances and creating a sense of stability. Clinicians took pragmatic views to considering intervention opportunities for people with ID and understood effectiveness as a multilevel and idiosyncratic process. Results expand existing accounts of CAT and ID practice, systematically consolidate multiple views and suggest clinicians should be utilising the CAT framework across individual, systemic and societal levels.

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Appendix A: Psychology & Psychotherapy: Theory, Research & Practice author guidelines

Psychology and Psychotherapy: Theory Research and Practice is an international scientific journal with a focus on the psychological aspects of mental health difficulties and well-being; and psychological problems and their psychological treatments. We welcome submissions from mental health professionals and researchers from all relevant professional backgrounds.

Length

All articles submitted to PAPT must adhere to the stated word limit for the particular article type. The word limit does not include the abstract, reference list, figures and tables. Appendices however are included in the word limit.

Word limits for specific article types are as follows:

- · Research articles: 5000 words
- · Qualitative papers: 6000 words
- · Review papers: 6000 words
- · Special Issue papers: 5000 words

Submission and reviewing

All manuscripts must be submitted via Editorial Manager. The Journal operates a policy of anonymous (double blind) peer review.

Manuscript requirements

 Contributions must be typed in double spacing with wide margins. All sheets must be numbered.

 Manuscripts should be preceded by a title page, which includes a full list of authors and their affiliations, as well as the corresponding author's contact details.

 The main document must be anonymous. Please do not mention the authors' names or affiliations (including in the Method section) and refer to any previous work in the third person.

 Tables should be typed in double-spacing, each on a separate page with a self-explanatory title. Tables should be comprehensible without reference to the text. They should be placed at the end of the manuscript but they must be mentioned in the text.

 Figures can be included at the end of the document or attached as separate files, carefully labelled in initial capital/lower case lettering with symbols in a form consistent with text use. Unnecessary background patterns, lines and shading should be avoided. Captions should be listed on a separate sheet. The resolution of digital images must be at least 300 dpi. All figures must be mentioned in the text. For articles containing original scientific research, a structured abstract of up to 250 words should be included with the headings: Objectives, Design, Methods, Results, Conclusions. Review articles should use these headings: Purpose, Methods, Results, Conclusions.

 All Articles must include Practitioner Points – these are 2-4 bullet points, in addition to the abstract, with the heading 'Practitioner Points'. These should briefly and clearly outline the relevance of your research to professional practice.

 For reference citations, please use APA style. Particular care should be taken to ensure that references are accurate and complete. Give all journal titles in full and provide DOI numbers where possible for journal articles.

 SI units must be used for all measurements, rounded off to practical values if appropriate, with the imperial equivalent in parentheses.

· In normal circumstances, effect size should be incorporated.

Authors are requested to avoid the use of sexist language.

 Authors are responsible for acquiring written permission to publish lengthy quotations, illustrations, etc. for which they do not own copyright.

 Manuscripts describing systematic reviews and meta-analyses must be submitted in accordance with the PRISMA statement on reporting systematic reviews and meta-analyses (http://www.prisma-statement.org).

Retrieved from: https://onlinelibrary.wiley.com/page/journal/20448341/homepage/forauthors.html

Appendix B: Email to key authors

Dear [Researcher's Name],

I am currently undertaking a systematic review and meta-analysis into the effectiveness of Cognitive Analytic Therapy (CAT). I have noticed that you have published the following studies relating to this area:

[Insert Researcher's Reference(s)].

I was just wondering if you were aware of any other studies that I may have missed that meet the following criteria:

- Published within a peer reviewed journal
- Evaluating individual or group CAT
- · Includes psychometric measures relating to:
 - Global symptom outcomes (e.g. the Brief Symptom Inventory; BSI, The Symptom Checklist Revised 90; SCL-R-90; the CORE-OM or The General Health Questionnaire; GHQ).
 - Interpersonal Functioning (e.g. Inventory of Interpersonal problems 32, 64 or 127, the Persons Relating to Others Questionnaire).
 - Depression (e.g. Beck Depression Inventory I or II, The Hospital Anxiety and Depression Scale (HADS), the Patient Health Questionnaire (PHQ-9).
- The study must report pre and post treatment means and standard deviations to be included.

If you aware of any of other studies that I may have missed, or that you have published I would really appreciate it if you could email a reference or paper itself so this can be included in the review. We are hoping this review will contribute to the overall outcome research into CAT so this information would be really helpful.

Thanks you for your help and I look forward to hearing from you,

Best Wishes, Craig Hallam Trainee Clinical Psychologist

Category of outcome	Included measures	Description and rationale for included measure	Seemingly relevant but excluded measures	Description and rationale for excluded measures
Global Symptoms – measures commenting on general levels of distress, pan- symptomatic/pan- theoretical constructs, non- specific mental health difficulties	Clinical Outcomes for Routine Evaluation - Outcome Measure (CORE - OM)	The measure is described as pan- theoretical and pan-diagnostic and as measuring general levels of psychological distress (Gray & Mellor-Clark, 2007). The measure is non-specific and pan-diagnostic leading to its inclusion.		
	General Health Questionnaire (GHQ)	The measure is a screening tool used to identify non-psychotic and minor psychiatric disorders and enquires about current state and new and distressing phenomenon (Goldberg & Hillier, 1979).		
	Brief Symptom Inventory (BSI)	The measure references multiple mental health difficulties and distress and was therefore included. The measures evaluates general levels of psychological distress and the presence of psychiatric disorders (Derogatis, 1993).		

Appendix C: Table detailing included and excluded measures

		The measure comments on general levels of psychological distress which was deemed relevant to the category.		
	Symptom CheckList- 90-Revised (SCL-90- R).	The measure has been designed to evaluate a broad range of psychiatric/psychological difficulties (Derogatis, 2000).		
		Again, the measure comments on multiple and general levels of difficulties.		
Interpersonal Functioning – Measures relating to core and stable patterns of relating across life domains leading to distress.	Inventory of Interpersonal Problems 32, 64, 127 (IIP-32, 64 or 127).	The measures identify salient patterns of interpersonal difficulties and the types of interpersonal problems that people might encounter (Horowitz, 1998).	Work and Social Adjustment Scale (WSAS).	Measures functional impairment related to a specific identified problem. The measure did not focus on general and overarching patterns of relating and was therefore excluded.
	Person's Relating to Others Questionnaire 2 (PROQ-2)	The measure identifies characteristics relevant to an individual's negative patterns of relating to others (Birtchnell 2004).		
Depression – Specifically mentioning or	Beck Depression Inventory (BDI)	Self-report measures which measures the severity of depression.		

c :		
referencing a		
measure of the		
psychiatric		
diagnosis		
depression.		
	Hospital Anxiety and	A self-report scale used to detect
	Depression Scale	states of depression, anxiety and
	(HADS)	emotional distress.
		The depression subscale captures
		the depression outcome.
	Patient Health	The scale contains nine items
	Questionnaire-9	directly relating to scales of the
	(PHQ-9)	DSM-V criteria for major
		depressive disorder.

Appendix D: Adapted Downs and Black (1998) Tool

Study Reference:

Quality Score:

Reporting Items	Score	Rationale
 Is the hypothesis/aim/objective of the study clearly described? 	Yes = 1	
	No = 0	
Must be explicit and clearly explained. Only one sentence outlining a		
general aim should be answered as no.		
Are the main outcomes to be measured clearly described in the	Yes = 1	
Introduction or Method section?	No = 0	
If the main outcomes are mentioned in the Results section, the question		
should be answered no. Main outcome measure of interest is that relating		
to the relevant category of outcome (e.g. global symptom, depression).		
Studies which only mention the name of the measure and not give a		
description of the actual outcome of interest should be answered no.		
 Are the characteristics of the patients included in the study clearly 	Yes = 1	
described?	No = 0	
In cohort studies, trials and case series, inclusion and/or exclusion criteria		
should be given. In case-control studies a case definition and the source for		
controls should be given.		
4. Are the interventions of interest clearly described?	Yes = 1	
	No = 0	
Treatments and placebo (if relevant) should be clearly described (e.g.		
outline of the therapy, number of sessions, adaptations needed for specific		
populations). Short overall descriptions should be answered no.		

Are the distributions of principal confounders in each group of subjects to be compared clearly described?	Yes = 2 $Partially = 1$ $No = 0$
Distributions of age, gender and pre-treatment depression severity (e.g.	
the following: employment, relationship status, commentary on self-harm.	
alcohol use, hospital admissions should be described to give a yes. If a mix	
of information is available this should be answered partially. For studies	
with no comparator, give a score of one if confounders have been	
described.	
6. Are the main findings of the study clearly described?	Yes = 1
	No = 0
Simple outcome data (including denominators and numerators) should be reported for all major findings so that the reader can check the major analyses and conclusions. This means the relevant statistics should be available for interpretation e.g. t values, Cohen's D etc. Pre and post data of the outcomes is needed to score a yes.	
7. Does the study provide estimates of the random variability in the data for the main outcomes?	Yes = 1 No = 0
In non-normally distributed data, the inter-quartile range of results should be reported. In normally distributed data, the standard error, standard deviation or confidence intervals should be reported. If distribution is not described, it must be assumed estimates were appropriate and should be answered yes.	
8. Have all important adverse events that may be a consequence of the intervention been reported?	Yes = 1 No = 0

This should be answered yes if the study demonstrates that there was a comprehensive attempt to measure adverse events. This might include reporting or measuring deterioration risk issues or admissions to		
hospital/accident and emergency.		
 Have the characteristics of patients lost to follow-up been described? 	Yes = 1 No = 0	
This should be answered yes where studies provide explanation of 1) the characteristics of the patients lost to follow-up 2) the breakdown of attrition rates across treatment and comparison conditions 3) the reason for patient attrition. If a study with a comparison condition only report overall attrition without specifying separate rates for each group, a rating of unable to determine should be given. Answer yes if no patients were lost to follow up and in studies where losses did not affect overall findings (<5% of sample). This should be answered 'no' where a study does not report number lost to follow up.		
 Have actual probability values been reported (e.g. 0.035 rather than <0.05) for the main outcomes except where the probability value is less than 0.001? 	Yes = 1 No = 0	
External Validity Items (items relating to the representativeness of the		
findings of the study and whether they may be generalised to the population from which the study subjects were derived).		
11. Were the subjects asked to participate in the study representative of the entire population from which they were recruited?	Yes = 1 No = 0 Unable to	
The study must identify the source population for patients, describe identification of the source population through inclusion and exclusion criteria and describe how the patients were selected. Patients would be	determine = 0	
representative if they comprised the entire source population, an unselected sample of consecutive patients, or a random sample. Random sampling can only be considered possible where a list of all members of the population		

exist. If a study does not report the source of selection (e.g. only reports 12		
out of 30 met criteria) the item should be answered unable to determine.		
12. Were those subjects who were prepared to participate representative of the entire population from which they were recruited?	Yes = 1 No = 0 Unable to determine = 0	
The proportion of those asked and agreed should be stated. Validation that	determine v	
the sample was representative would include demonstrating that the distribution of the main confounding factors was the same in the study		
sample ad the source population. Both should be included for a yes to be given.		
 13. Were the staff, places, and facilities where the patients were treated, representative of the treatment the majority of patients receive? For the question to be answered yes, the study should demonstrate that the intervention was representative of that in use in the source population (e.g. mention it was delivered in routine clinical practice or make some comment that this represented routine practice). Studies which do not explicitly state treatment setting should <u>e</u> answered unable to determine. The question should be answered no if the intervention was undertaken in a specialist environment. 	Yes = 1 No = 0 Unable to determine = 0	
Internal Validity – Bias Items		
14. Was an attempt made to blind study subjects to the intervention they have received?For studies where patients would have no way of knowing which intervention they received, this should be answered yes.	Yes = 1 No = 0 Unable to determine = 0	
15. Was an attempt made to blind those measuring the main outcomes of the intervention?	Yes = 1	
of the thiervention?	1NO = 0	

ſ	This must be explicitly mentioned (e.g. a different individual(s) measuring		
	outcomes to those delivering it and reference to them being blind to the		
	intervention).		
ſ	If any of the results of the study were based on "data dredging",	Yes = 1	
	was this made clear?	No = 0	
		Unable to	
	Any analyses which had not been planned at the outset should be indicated.	determine = 0	
	If no retrospective subgroup analyses were documented answer yes. If post		
	hoc tests e.g. moderator tests or sub groups tests) were used but not		
l	included in the method, answer unable to determine.		
	In trials and cohort studies, do the analyses adjust for different	Yes = 1	
	lengths of follow-up of patients, or in case-control studies, is the	No = 0	
	time period between the intervention and outcome the same for	Unable to	
	Cases and controls? Where follow up (time point after post) was the same for all patients the	determine = 0	
	answer should be use. If different lengths of follow up were adjusted for by		
	answer should be yes. If unterent lengths of follow up were adjusted for by σ		
	e.g. survival analysis answer yes. Studies where unreferences in follow up		
	are ignored should be answered no. If there was no follow-up of		
\mathbf{I}	18 Ware the statistical tests used to assess the main autoomer	Vec = 1	
	annonriate?	$N_{0} = 0$	
	The statistical tests must be appropriate to the data e.g. non parametric tests	INO – U Umeble te	
	for small sample sizes. For 2 sample t-test of ANOVA, groups should have	datamaina = 0	
	more than 15 participants and for 1 sample t-tests, the sample should be	determine = 0	
	>20. If little statistical analyses have been undertaken but there is no		
	evidence of bias answer ves. If the distribution of data is not mentioned, it		
	should be assumed that data is normally distributed and answered yes.		
ł	19. Was compliance with the intervention/s reliable	Yes = 1	
	r	No = 0	
		Unable to	
	Studies which describe a form of adherence/fidelity monitoring of the	determine = 0	
	intervention/therapist should be answered yes. If compliance/adherence is		
1	not mentioned, this should be answered unable to determine. Where there		

was non-compliance with the allocated treatment or where there was contamination of one group, the question should be answered no. For studies where the effect of any misclassification was likely to bias any association to the null, the question should be answered yes. 20. Were the main outcome measures used accurate (valid and reliable)? For studies where the outcome measures are clearly described, the question should be answered yes. For studies which refer to other work or that demonstrates the outcome measures are accurate, the question should be	Yes = 1 No = 0 Unable to determine = 0	
 answered as yes. 21. Were the patients in different intervention groups (trials and cohort studies) or were the cases and controls (case-control studies) recruited from the same population? For example, patients for all comparison groups should be selected from the same hospital. The question should be answered unable to determine for cohort and case- control studies where there is no information concerning the source of patients included in the study. If there was no comparison group, answer no. 	Yes = 1 No = 0 Unable to determine = 0	
 22. Were study subjects in different intervention groups (trials and cohort studies) or were the cases and controls (case-control studies) recruited over the same period of time? For a study which does not specify the time-period over which patients were recruited, the question should be answered as unable to determine. If there was no comparison group, answer no. 	Yes = 1 No = 0 Unable to determine = 0	
23. <u>Were</u> study subjects randomised to intervention groups?	Yes = 1 No = 0	

Study	Downs and Black	Outcomes included in
-	Quality Reference Score	
Tzouramanis, p., Adamopoulou, A., Bozikas, V., Voikli, M., Zagora, C., Lombtzianidou, M., Garvfallos, G. (2010). Evaluation of cognitive- analytic therapy (CAT) outcome in patients with panic disorder. Psychiatriki, 21(4), 287-293.	5	Depression
Evans, J., & Parry, G. (1996). "The impact of reformulation in cognitive- analytic therapy with difficult-to-help clients." Clinical Psychology & Psychotherapy 3(2): 109-117.	5	Global Symptoms
Brockman, B., Poynton, A., Ryle, A., & Watson, J. P. (1987). Effectiveness of time-limited therapy carried out by trainees: Comparison of two methods. The British Journal of Psychiatry, 151, 602-610. doi:10.1192/bjp.151.5.602.	6	Global Symptoms, Depression
Wildgoose, A., Clarke, S., & Waller, G. (2001). Treating personality fragmentation and dissociation in borderline personality disorder: A pilot study of the impact of cognitive analytic therapy. British Journal of Medical Psychology, 74(Pt1), 47-55. doi:10.1348/000711201160795.	6	Global Symptoms, Interpersonal Functioning

Appendix E: Included Studies' Quality Ratings

Clarke, S., & Pearson, C. (2000).	7	Global Symptoms,
Personal constructs of male survivors		Depression
of childhood sexual abuse receiving		
cognitive analytic therapy. British		
Journal of Medical Psychology,		
73(Pt2), 169-177.		
doi:10.1348/000711200160408.		
Clarke, S., & Llewelyn, S. (1994).	7	Global Symptoms,
Personal constructs of survivors of		Depression
childhood sexual abuse receiving		
cognitive analytic therapy. Psychology		
and Psychotherapy: Theory, Research		
and Practice, 67(3), 273-289.		
Birtchnell, J., Denman, C., & Okhai.	8	Global Symptoms,
F. (2004). Cognitive analytic therapy:		Interpersonal Functioning
Comparing two measures of		
improvement. Psychology and		
Psychotherapy: Theory, Research and		
Practice, 77(4), 479-492.		
doi:10.1348/1476083042555398		
Sandhu, S. K., Kellett, S., & Hardy, G.	9	Depression
(2017). The development of a change		
model of 'exits' during cognitive		
analytic therapy for the treatment of		
depression. Clinical Psychology &		
Psychotherapy. doi:10.1002/cpp.2090		
Dunn, M., Golynkina, K., Ryle, A., &	10	Global Symptoms,
Watson, J. P. (1997). A repeat audit of		Interpersonal Functioning
the Cognitive Analytic Therapy Clinic		Depression
at Guy's Hospital. The Psychiatrist,		
21(3), 165-168.		

Parla A & Columbina K (2000)	10	Clobal Symmetry
Ryle, A., & GOIMMAN, R. (2000).	10	Intermentation I Formation in a
constructive analytic therapy of		Depression
orderline personality disorder:		Depression
Castors associated with outcome		
Pactors associated with outcome.		
Swebology 73(Pt2) 197-210		
ai-10 1348/000711200160426		
[arriott M & Kallatt S (2009)	11	Global Symptoms
valuating a cognitive analytic		Internetional Eurotioning
valuating a cognitive analytic		Depression
utcomes and comparisons with		Depression
arcon-contrad and cognitive-		
abavioural theranies. Psychology and		
sychotherany: Theory Research and		
ractice 82(1) 57-72		
oi:10 1348/147608308X336100		
alvert R. Kellett S. & Hagan T.	13	Global Symptoms.
2015). Group cognitive analytic		Interpersonal Functioning
herapy for female survivors of		Depression
hildhood sexual abuse. British		
Journal of Clinical Psychology, 54(4).		
391-413. doi:10.1111/bjc.12085.		
Meadows, J., & Kellett, S. (2017).	13	Depression
Development and evaluation of		-
ognitive analytic guided self-help		
CAT-SH) for use in IAPT services.		
Behavioural and Cognitive		
Psychotherapy, 45(3), 266-284.		
doi:10.1017/S1352465816000485		

Kellett, S., Bennett, D., Ryle, T., &	15	Global Symptoms
Thake, A. (2013). Cognitive analytic		
therapy for borderline personality		
disorder: Therapist competence and		
therapeutic effectiveness in routine		
practice. Clinical Psychology &		
Psychotherapy, 20(3), 216-225.		
doi:10.1002/cpp.796.		
Taylor, P. J., Perry, A., Hutton, P.,	15	Depression
Tan, R., Fisher, N., Eccone, C., &		
Seddon, C. (2018). Cognitive Analytic		
Therapy for psychosis: A case		
series. Psychology and		
Psychotherapy: Theory, Research and		
Practice.		
Clarke, S., Thomas, P., & James, K.	17	Global Symptoms,
(2013). Cognitive analytic therapy for		Interpersonal Functioning
personality disorder: Randomised		
controlled trial. The British Journal of		
Psychiatry, 202(2), 129-134.		
doi:10.1192/bjp.bp.112.108670.		
Fosbury, J. A., et al. (1997). "A trial of	17	Interpersonal Functioning
cognitive analytic therapy in poorly		
controlled type I patients." Diabetes		
care 20(6): 959-964.		

Evans, M., Kellett, S., Heyland, S.,	18	Global Symptoms,
Hall, J., & Majid, S. (2017). Cognitive		Depression
analytic therapy for bipolar disorder:		
A pilot randomized controlled trial.		
Clinical Psychology & Psychotherapy,		
24(1), 22-35. doi:10.1002/epp.2065		
Kellett, S., Stockton, C., Marshall, H.,	19	Depression
Hall, J., Jennings, C., & Degadillo, J.		
(2018). Efficacy of Narrative		
Reformulation during Cognitive		
Analytic Therapy for Depression:		
Randomized Dismantling		
Trial. Journal of Affective Disorders.		

Appendix F: Data Extraction Tool

1) Please state the full reference of the selected article including author names, year and journal citation:

2) What is the publication status of the study? Published Study □ Study in press □

3) Study/Design Type	
Evidence Based Practice	Practice Based Evidence
Randomised Control Trial 🛛	Case Study
	Case Series 🛛
Other (Please State):	

4) Quality Rating (Downs and Black (1998) Tool):

Overall Quality Score (first rater):

If this paper was double rated, please include the second rater's score:

5) Drop Out Rates

% of clients who dropped out:

Measure	Self- reported or	No. of RPs in CAT	CAT pre- means	CAT pre- SDs	CAT post means	CAT post SDs	Correlation between pre and	Cohen's D
	clinician rated?	group					post	
BSI / SCL Circle as appropriate								
IIP 32, 64, 127 Circle as appropriate								
BDI / Montgomery Circle as appropriate								
Measure	Self-	No of	Comp	Comp	Comn	Comn	Correlation	Cohen's
measure	reported or clinician rated?	RPs in comp group	pre- means	pre- SDs	post means	post SDs	between pre and post	D
BSI / SCL Circle as appropriate	reported or clinician rated?	RPs in comp group	pre- means	pre- SDs	post means	post SDs	between pre and post	D
BSI / SCL Circle as appropriate IIP 32, 64, 127 Circle as appropriate	reported or clinician rated?	RPs in comp group	pre- means	pre- SDs	post means	post SDs	between pre and post	D

7) Other Information

Mean CCAT score	Mean Age	Number of sessions	Is therapist qualified?	Drop out rate	Diagnosis
Gender %	Presenting				
Male	problems				

Appendix G: Journal of Applied Research in Intellectual Disabilities author guidelines

The following section details pertinent information from the author guidelines section of the Journal of Applied Research in Intellectual Disabilities. Full details of the guidelines can be found at the following website:

https://onlinelibrary.wiley.com/page/journal/14683148/homepage/forauthors.html

1. General

"The topics it covers include community living, quality of life, challenging behaviour, communication, sexuality, medication, ageing, supported employment, family issues, mental health, physical health, autism, economic issues, social networks, staff training, epidemiology and service provision. Theoretical papers are also considered provided the implications for therapeutic action or enhancing quality of life are clear. Both qualitative and qualitative methodologies are welcomed".

5. Manuscript types accepted

"Original Articles, Review Articles, Brief Reports, Book Reviews and Letters to the Editor are accepted. Theoretical Papers are also considered provided the implications for therapeutic action or enhancing quality of life are clear. Both quantitative and qualitative methodologies are welcomed. Articles are accepted for publication only at the discretion of the Editor. Articles should not exceed 7000 words.

6. Structure

All manuscripts submitted to the Journal of Applied Research in Intellectual Disabilities should include:

Cover Page: A cover page should contain only the title, thereby facilitating anonymous reviewing. The authors' details should be supplied on a separate page and the author for correspondence should be identified clearly, along with full contact details, including e-mail address.

Running Title: A short title of not more than fifty characters, including spaces, should be provided.

Keywords: Up to six key words to aid indexing should also be provided.

Main Text: All papers should have a structured abstract (maximum 150 words) as follows: Background, Method, Results, and Conclusions. The abstract should provide an outline of the research questions, the design, essential findings and main conclusions of the study. Authors should make use of headings within the main paper as follows: Introduction, Method, Results and Discussion. Subheadings can be used as appropriate. All authors must clearly state their research questions, aims or hypotheses clearly at the end of the Introduction. Figures and Tables should be submitted as a separate file.

Style: Manuscripts should be formatted with a wide margin and double spaced. Include all parts of the text of the paper in a single file, but do not embed figures.

6. References

References should be prepared according to the Publication Manual of the American Psychological Association (6th edition). This means in text citations should follow the authordate method whereby the author's last name and the year of publication for the source should appear in the text, for example, (Jones, 1998). The complete reference list should appear alphabetically by name at the end of the paper.

A sample of the most common entries in reference lists appears below. Please note that a DOI should be provided for all references where available. For more information about APA referencing style, please refer to the <u>APA FAQ</u>. Please note that for journal articles, issue numbers are not included unless each issue in the volume begins with page one.

Appendix H: Letters of approval from D.ClinPsy research review committee and University ethics committee



D.Clin.Psychology Programme Division of Clinical Psychology Whelan Building, Quadrangle Brownlow Hill LIVERPOOL L69 3GB

Tel: 0151 794 5530/5534/5877 Fax: 0151 794 5537 www.liv.ac.uk/dclinpsychol

Craig Hallam Clinical Psychology Trainee Doctorate of Clinical Psychology University of Liverpool L69 3GB

21 February 2018

RE: A Thematic Analysis exploring how Cognitive Analytic Therapists construct models, theories and adaptations used to inform effective therapy for individuals with intellectual disabilities Trainee: Craig Hallam Supervisors: Beth Greenhill

Dear Craig,

Thank you for your response to the Research Review Committee's comments of your research proposal submitted to the D.Clin.Psychol. Research Review Committee (letter dated 20/02/2018).

Your amended proposal (Version number 3.0, dated 20/02/2018) has been reviewed by the Committee Chair and I can now confirm that your amended proposal meets the requirements of the Committee and has been approved as work in progress by the Committee Chair.

Please take this Chairs Action decision as final approval from the committee.

You may now progress to the next stages of your research.

I wish you well with your research project.

Sallaspe

Dr Steven Gillespie Vice-Chair D.Clin.Psychol. Research Review Committee.

Dr Laura Goldin Programme Directo I.golding@liv.ac.uk Dr Jim Williams Clinical Director j.r.williams@liv.ac.uk Dr Ross White Research Director r.g.white@liv.ac.uk Dr Gundi Kiemle Academic Director gkiemle@liv.ac.uk A member of the Russell Group Mrs Sue Knight Programme Co-ordinato sknight@liv.ac.uk



Health and Life Sciences Research Ethics Committee (Psychology, Health and Society)

29 June 2018

Dear Dr Greenhill

I am pleased to inform you that your application for research ethics approval has been approved. Application details and conditions of approval can be found below. Appendix A contains a list of documents approved by the Committee.

Application Details

Reference:	2981
Project Title:	A qualitative analysis exploring how Cognitive Analytic Therapy practitioners are using and adapting cognitive analytic therapy within intellectual disability services.
Principal Investigator/Supervisor:	Dr Beth Greenhill
Co-Investigator(s):	Mr Craig Hallam
Lead Student Investigator:	-
Department:	School of Psychology (including DClinPOsych)
Approval Date:	29/06/2018
Approval Expiry Date:	Five years from the approval date listed above

The application was APPROVED subject to the following conditions:

Conditions of approval

- All serious adverse events must be reported via the Research Integrity and Ethics Team (ethics@liverpool.ac.uk) within 24 hours of their occurrence.
- If you wish to extend the duration of the study beyond the research ethics approval expiry date listed above, a new application should be submitted.
- · If you wish to make an amendment to the research, please create and submit an amendment form using the research ethics system.
- If the named Principal Investigator or Supervisor leaves the employment of the University during the course of this approval, the
 approval will lapse. Therefore it will be necessary to create and submit an amendment form using the research ethics system.
- · It is the responsibility of the Principal Investigator/Supervisor to inform all the investigators of the terms of the approval.

Kind regards,

Health and Life Sciences Research Ethics Committee (Psychology, Health and Society) iphsrec@liverpool.ac.uk 0151 795 5420

Page 1 of 2

Appendix - Approved Documents

(Relevant only to amendments involving changes to the study documentation)

The final document set reviewed and approved by the committee is listed below:

Document Type	File Name	Date	Version
Advertisement	Email Invite	29/01/2018	1
Evidence Of Peer Review	RRC Approval	26/04/2018	1
Interview Schedule	Interview Schedule ethics	25/05/2018	1
Evidence Of Peer Review	HallamCraig_ProposalAmendment_April2018	25/05/2018	1
Participant Consent Form	Participant Consent Form	25/05/2018	1
Participant Information Sheet	PIS with Sponsorship Info	04/06/2018	2
Study Proposal/Protocol	Qualitative Proposal v6	17/06/2018	6

Appendix I: Email to participants

Version Number: 1

Date: 27/06/18

IRAS Number: 247546



E-mail Invitation

Dear Prospective Participant,

I am writing to ask if you would be available to take part in an upcoming research study which is aiming to find out more about how Cognitive Analytic Therapy CAT practitioners are using CAT in their practice with people with learning disabilities. We are looking for both qualified CAT therapists and those in training to take part and would like to find out more about how you are using CAT, which models you are drawing on in your practice and how you are measuring effectiveness.

We are hoping to collect data through interviews which we are estimated to last between 45-60 minutes. Interviews will take place either at the CAT and LD special interest groups, over Skype, or at an NHS site where you work. I have attached a participant information sheet to this email which provides further details of the study, if you are interested. If you have any questions or would like to take part, please could you reply to this email and I will be in touch as soon as possible to ask when would be a convenient time and place to conduct the interviews.

I look forward to hearing from you. Thank you for your time.

Yours sincerely

Cthatta _____

Craig Hallam Trainee Clinical Psychologist Challam1@liverpool.ac.uk
Appendix J: Participant information sheet

Version Number: 2

Date: 06/08/18



Participant Information Sheet

This information sheet contains answers to key questions about your participation within the upcoming research study.

Project Title: A thematic analysis exploring how clinicians using Cognitive Analytic Therapy construct models, theories, adaptations and understand effectiveness when working with people who have a learning disability

What is the purpose of the current study?

The project is being undertaken as part a Doctorate in Clinical Psychology Programme. To date there have been various case studies, examples and theoretical accounts giving insight into how CAT might be usefully and successfully adapted for individuals with learning disabilities. The present research project aims to expand on these individual, theoretical and more anecdotal accounts and systematically explore the general themes, adaptations and models which are been drawn on by CAT practitioners within clinical practice. The research hopes to comment on the ways in which CAT is being practically implemented in services as well as enquiring about how its effectiveness is being monitored. This will be achieved through conducting interviews with CAT practitioners who work with clients with intellectual disabilities and using a thematic analysis approach to generate themes and establish a more robust consensus around how CAT is being used and implemented.

Why have I been invited?

We are looking for clinicians who are undertaking CAT with people with learning disabilities in routine clinical practice to take part in the research. We are asking that participants have at least one year's experience of using CAT in LD services.

Do I have to take part in the study?

No, you do not have to take part in the study if you do not want to. Your participation is voluntary.

What will I be asked to do if I am asked to take part?

You will be asked to take part in an interview with the primary researcher which will last about an hour. Within the interview you will be asked questions about the adaptations you are making to the CAT model within your practice, the models of learning disability that you are drawing on to inform your practice, and in which ways you are measuring the effectiveness of your practice. Interviews can be arranged to take place at a convenient location or over Skype or other video calling software.

What are the possible benefits of taking part?

You would be contributing to the research base for CAT and how it is being used with people with learning disabilities. This may allow other CAT practitioners insights into how the approach is being used which might benefit and contribute toward their practice. It may also be interesting for you to reflect and consider how you are using and adapting CAT to suit the needs of people with learning disabilities.

What are the possible disadvantages of taking part?

It may be difficult to bring to mind and articulate how you are adapting CAT or drawing on models of learning disability within your practice. It may feel exposing or challenging to discuss your clinical practice in depth. The interview schedule has been designed with prompting questions and guidance which will hopefully minimise these experiences. Please note that you do not have to answer questions that you do not want to or feel comfortable with.

Will the information that I provide be kept confidential?

The interview recordings will be password protected and kept electronically within a secure drive at the University of Liverpool. The research supervisor Beth Greenhill will be the custodian for this data. In some cases, an audio recording device may be used. Any audio tapes will either be uploaded electronically or kept within a secure and lockable metal file cabinet at the University of Liverpool. All transcripts will be stored as electronic files, password protected and stored within a secure electronic drive at the University of Liverpool.

The University of Liverpool is the sponsor for this study based in the United Kingdom. We will be using information from you in order to undertake this study and will act as the data controller for this study. This means that we are responsible for looking after your information and using it properly. The University of Liverpool will keep identifiable information about you until the research has been published.

Your rights to access, change or move your information are limited, as we need to manage your information in specific ways in order for the research to be reliable and accurate. If you withdraw from the study, we will keep the information about you that we have already obtained. To safeguard your rights, we will use the minimum personally-identifiable information possible.

You can find out more about how we use your information by contacting our Data Protection Officer, Victoria Heath and you can contact them at <u>V.Heath@liverpool.ac.uk</u>.

As a university, we use personally-identifiable information to conduct research to improve health, care and services. As a publicly-funded organisation, we have to ensure that it is in the public interest when we use personally-identifiable information from people who have agreed to take part in research. This means that when you agree to take part in a research study, we will use your data in the ways needed to conduct and analyse the research study. Your rights to access, change or move your information are limited, as we need to manage your information in specific ways in order for the research to be reliable and accurate. If you withdraw from the study, we will keep the information about you that we have already obtained. To safeguard your rights, we will use the minimum personally-identifiable information possible.

Health and care research should serve the public interest, which means that we have to demonstrate that our research serves the interests of society as a whole. We do this by following the UK Policy Framework for Health and Social Care Research.

If you wish to raise a complaint on how we have handled your personal data, you can contact our data protection officer who will investigate the matter. If you are not satisfied with our response or believe we are processing your personal data in a way that is not lawful you can complain to the Information <u>Commisioner's</u> Office (ICO).

Our Data Protection Officer is Victoria Heath and you can contact them at

V.Heath@liverpool.ac.uk.

What will happen to the results of my study?

The results will be written up as part of a Doctorate in Clinical Psychology thesis and will conform to the standards of a peer reviewed psychological journal. The results will hopefully be published which will allow for others to gain information about how CAT is being used with people with a learning disability. An information sheet summarising the results of the study will be available through email if you would like to receive this. You can also arrange to discuss the results with the lead researcher if you have any further questions or comments.

What will happen if I do not wish to carry on with the research?

You are able to withdraw from the study at any time, up until the data has been analysed. If you choose to withdraw, you can contact the lead researcher to notify him. You do not have to explain your decision and no questions will be asked about your withdrawal.

What if there is a problem?

You will be given contact information for the primary researcher, Craig Hallam, and you can contact him to discuss any problems, queries or questions you may have during the study. His email address is <u>challam1@liverpool.ac.uk</u>. Beth Greenhill is the supervisor and she can be also be contacted on <u>bethg@liverpool.ac.uk</u>.

If you would like to contact somebody outside of the direct research team, you can contact the Research Ethics and Integrity Office (<u>ethics@liv.ac.uk</u>). If you make contact with the Research Ethics and Integrity Office, please provide details of the name or description of the study, the name of the researchers involved (mentioned above) along with the complaint.

If you have a complaint about a data protection issue, please see information provided in the section below.

Expenses and Payment

Unfortunately, we cannot offer you any monetary reimbursement for your participation within the study.

What happens now?

If you are interested in taking part, please contact the lead researcher Craig Hallam either in person or on the email address <u>challam1@liverpool.ac.uk</u>. Craig will then arrange a suitable time and place for the interview to take place.

Appendix K: Consent form

Version Number: 1

Date: 27/06/18

Participant Consent Form

A thematic analysis exploring how clinicians using Cognitive Analytic Therapy construct models, theories, adaptations and understand effectiveness when working with people who have a learning disability

•	I have received an information sheet for the above study and have had the opportunity to read and understand this and ask any questions I may have.	
•	I understand that I can withdraw from the study at any time up until the point of data analysis. I do not have to provide a reason or explanation for my withdrawal. I also do not have to answer any questions that I do not want to.	
•	I understand that I can ask for access to the data at any time and request for the destruction of the data if I wish.	
•	I understand that the interviews will be audio recorded and I provide consent for the use of audio recording equipment to be used during interviews.	
•	I understand that information that I provide will be anonymised and kept confidential. No personal or identifiable information will be used in publications or write ups which arise from the study.	
	I agree to take part in the above study	

I agree to take part in the above study

Name:		 	
Signature:	 	 	
Date:	 	 	

This research is organised by the University of Liverpool.



Appendix L: Demographic information sheet

Version Number: 1	Date: 17/06/18	
	UNIVERSITY OF LIVERPOOL	
Demographic Information	•	Sheet
Thank you for agreeing to take part demographic information about you context to the data collected. This is not answer these questions if you d	in the above mentioned study. We would like which will hopefully give a richer account ar nformation may be written in the final draft of o not wish this information to be shared in this	to find out more id provide further 'the research, please do s way.

- 1. What is your age? _____
- 2. How would you describe your gender?

	Male
	Female
	Non-binary/third gender
	Prefer to self-describe:
	Prefer not to say
3.	Do you consider yourself part of the Lesbian, Gay, Bisexual, Transgender (LGBTQ+) community?
	Yes No

No, but I identify as an ally	
rio, out i locatify as an any	

Prefer not to say

4. How would you describe your ethnicity/race?

White

- 1. English/Welsh/Scottish/Northern Irish/British
- 2. Irish

- 3. Gypsy or Irish Traveller
- 4. Any other White background, please describe

Mixed/Multiple ethnic groups

- 5. White and Black Caribbean
- 6. White and Black African
- 7. White and Asian
- 8. Any other Mixed/Multiple ethnic background, please describe

Asian/Asian British

- 9. Indian
- 10. Pakistani
- 11. Bangladeshi
- 12. Chinese
- 13. Any other Asian background, please describe

Black/ African/Caribbean/Black British

- 14. African
- 15. Caribbean
- 16. Any other Black/African/Caribbean background, please describe

Other ethnic group

17. Arab

18. Any other ethnic group, please describe

1. How would you describe your religious orientation?

Not religious

Christian (including Church of England, Catholic, Protestant and all other Christian

denominations)

Buddhist

Hindu

Jewish

Muslim

Sikhh

Other (please state)

1.	How would you describe your political stance?
	Anarchism
	Absolutism
	Liberalism
	Conservatism
	Socialism
	Prefer to self-describe Prefer not to say

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Appendix M: Semi-structured interview schedule

Version Number: 1

Date: 25.05.18



Interview Schedule

Project Title: How do clinicians using Cognitive Analytic Therapy construct models, theories, adaptations and understand effectiveness when working with people who have a learning disability?

Researcher: Craig Hallam

Introduction (Not Recorded)

- 1. Thank you for taking part in the present research study.
- Ask if there any questions about the information sheet. Have you filled out a consent form? (This will outline the right to withdraw, confidentiality).
- Explain how long the interview will last, audio recording, there is no obligation to answer if you don't want to.
- 4. We are hoping that this will help us to understand how CAT is being used and adapted for people with a learning disability. Each CAT practitioner will have unique ways of working and adapting the model to suit the individual needs of clients. I am interested in your experiences and the ways in which you have used CAT within your clinical practice. I would like you to focus on your own practice and application if possible. We are also interested in thinking about theoretical accounts which underpin your practice so please feel free to discuss any theories that might come to mind. These might include biological, psychological, social, political, philosophical or any other type of theory that comes to mind. Does this sound Ok? Do you have any questions?
- 5. We would also like you to focus on historical and current examples of your practice where possible. Please provide specific examples that you have used and try to expand on the adaptations that you have used if possible, although I will prompt you on certain questions so don't worry too much!
- 6. Ask participants to use non-identifiable information where possible.
- 7. Do you have any questions before we start recording?

Recording Starts

Confirm with the participant that recording has started and all subsequent information will be recorded until further notice. We may use quotes in the final write up, but these will be completely anonymised.

Section 1: Demographic Information

- a) What is your current job title?
- b) How long have you worked within this post?
- c) How would you describe the service that you work in? (e.g. community LD team, low secure etc.)
- d) Are you trained in a core profession? If so, which one?
- e) (Roughly) How long have you worked with people who have a learning disability?
- f) Are you a qualified or trainee CAT practitioner?
- g) Which year did you qualify? Which year are you due to qualify?
- h) How long have you been using CAT with people with learning disabilities?
- i) How often do you use CAT with people with learning disabilities?
- j) Can you tell me about the CAT supervision you receive? How often is this?

Section 2: CAT and people with Learning Disabilities

- 1. Why do you use CAT with people who have a learning disability?
 - a) What do you think are the good and bad things about using CAT with people with a learning disability?
 - b) Why does CAT work well with people who have a learning disability?
- 2. What inclusion and exclusion criteria would you use to ascertain whether CAT might be helpful for people with a learning disability?
 - a) How do you know whether to offer CAT to somebody with a LD?
 - b) What factors might indicate that the person may/not benefit from CAT?
- How would you describe the process of therapy when working with somebody with a learning disability?
 - a) How would you describe the reformulation, recognition and revision stages of therapy?
 - b) What are the key features you consider when thinking through the process of therapy with somebody with a learning disability?
 - c) How long does therapy typically last? What factors might influence this?
 - d) What are the emotional and relational aspects of taking part in therapy with somebody with a learning disability?
- Are there any ways in which you involve a client's support network in the process of CAT therapy?
 - a) How do you engage members of the support network to become involved?
 - b) How would you involve staff members in your assessment?

- c) How would you involve staff members in helping an individual to recognise their unhelpful patterns?
- d) How would you involve support networks in recognising their own helpful/unhelpful ways of relating?
- e) How would you provide support/training for support networks? Does this involve socialisation to the model?
- f) How would you involve support networks in endings and the continuation of support around helpful/unhelpful patterns of relating?
- 5. What would you say are the key adaptations that need to be made to CAT therapy when working with somebody who has a learning disability?
 - a) Changes to the tools of therapy e.g. Psychotherapy File? Six Part Story Method? Goodbye letter? Systematic diagrammatic reformulation? Idiosyncratic methods – please provide examples.
 - b) Changes to the process of therapy?
 - c) Changes to the goals of therapy?
 - d) Changes to the approach to therapy?
- 6. Which theories and models have you drawn on to adapt your CAT practice?
 - Any psychological/biological/social/political/philosophical theories?
 - How would you use these?

Section 3: Models of Learning Disability

- 7. <u>How do you understand the construct of "learning disability"? Please draw on relevant</u> models of learning disability that you aware of.
 - a) What does the term 'learning disability' mean to you?
 - b) Any psychological/biological/social/political/philosophical ways that you might conceptualise learning disabilities?
- 8. <u>How do you understand the construct of "intelligence"? Please draw on any relevant</u> models of intelligence that you aware of.
 - a) What does intelligence mean to you?
 - b) What is your understanding of intelligence?
 - c) Any psychological/biological/social/political/philosophical ways that you might conceptualise intelligence?

- d) How would you involve staff members in helping an individual to recognise their unhelpful patterns?
- e) How would you involve support networks in recognising their own helpful/unhelpful ways of relating?
- f) How would you provide support/training for support networks? Does this involve socialisation to the model?
- g) How would you involve support networks in endings and the continuation of support around helpful/unhelpful patterns of relating?
- 9. What would you say are the key adaptations that need to be made to CAT therapy when working with somebody who has a learning disability?
 - a) Changes to the tools of therapy e.g. Psychotherapy File? Six Part Story Method? Goodbye letter? Systematic diagrammatic reformulation? Idiosyncratic methods – please provide examples.
 - b) Changes to the process of therapy?
 - c) Changes to the goals of therapy?
 - d) Changes to the approach to therapy?

10. Which theories and models have you drawn on to adapt your CAT practice?

- Any psychological/biological/social/political/philosophical theories?
- How would you use these?

Section 3: Models of Learning Disability

- 11. <u>How do you understand the construct of "learning disability"? Please draw on relevant</u> models of learning disability that you aware of.
 - a) What does the term 'learning disability' mean to you?
 - b) Any psychological/biological/social/political/philosophical ways that you might conceptualise learning disabilities?
- 12. <u>How do you understand the construct of "intelligence"? Please draw on any relevant</u> models of intelligence that you aware of.
 - a) What does intelligence mean to you?
 - b) What is your understanding of intelligence?
 - c) Any psychological/biological/social/political/philosophical ways that you might conceptualise intelligence?

- How has CAT influenced your understanding of the concepts of learning disability and intelligence?
 - a) How has CAT theory influenced how you understand and work with concepts of learning disability and intelligence?
 - b) How has you understanding of these concepts changed or developed through using the CAT approach?

Section 4: Assessing the effectiveness of CAT

- 14. <u>How would you describe 'effectiveness' when considering CAT with people who have a learning disability?</u>
 - a) What does effective CAT therapy mean to you?
 - b) How do you know when CAT has been effective?
- 15. What are the challenges and barriers in collaborating with people with a learning disability to provide effective CAT therapy?
 - a) What has been difficult about taking part in effective CAT?
 - b) Do you have any examples of times when it has been difficult to take part in effective CAT?
 - c) How have you overcome these challenges/barriers?

16. Do you have any experiences of taking part in CAT which have been less effective?

- a) How did you know that it wasn't effective?
- b) What were the factors that contributed to this?
- c) What would you have done differently with hindsight?
- d) Any experiences of CAT being harmful or ineffective?

17. How do you capture the effectiveness of your CAT practice?

- a. Psychometrics? Idiosyncratic measures? MDT records? Feedback from client/support networks? Other?
- b. Why do you monitor outcomes in this way?
- c. How often do you monitor the outcomes? E.g. follow up, sustained changes.
- d. Are there any limitations to the ways in which you capture change? Do you feel these outcomes sufficiently capture effectiveness of therapy?
- e. Individual and support network?

18. Is there anything else that you would like to mention or discuss?

Following further points, thank participant for their time and mention that the interview is now over.

End of Recording

Debrief

- a) How are you feeling after the interview? Is there anything else you would like to discuss?
- b) What happens now? All interviews will be anonymised, allocated a random identification number and transcribed. Thematic analysis will be used to analyse data and results will be written up into the format of a peer reviewed psychological journal and submitted in June 2018.
- c) Would you like me to send information relating to the findings of the study? Record email address if needed.
- d) Do you have any other questions/reflections? You can discuss the questions or study with other members of the CAT and LD special interest group if this would be helpful.
- e) Thank you for your time it is much appreciated.

Appendix N: Post interview reflective notes

Participant 3 - felt slightly more anxious during the ritariens perhaps fait a bit intrinudated because of -Something about IQ buel- behavioral photophony level of stated menhored - biological buis- first person to pp " - greson comment explicitly on this? -lots of information relating to relational enablement so systemin infuence really inpotent - suggestion that is in be conceptualized by relational I wig car is a susterie way enablement? - more shift about adaptation ere how people were Using colows, objects of reference? key adaptation patientaly hiped to CAT POLS. Using objects + laterets as a way to connect to the model. - conhision about how to understand CAT - individual systemic. where does the intervention he? multiple components - we of a fearable model? in line with chant's need?

Appendix O: Example of the familiarising self with data phase

Generate openational - amone of log is t difficulties conceptuations Former openational convertation Progetian Convepts of or hading information Title: 2 Length: 51 Interviewer: Craig Hallam function Interviewer: so the first question is why you use CAT with people who have a learning disability Respondent: because I think it's really I just think it is so helpful, its so (.) concrete for them erm so 2 the way that they can see the the diagram so the sequential diagrammatic reformulation the CAT truging with 3 diagram I think is so helpful for them because it's so concrete, it makes things very little for them. I wave no 4 also think and the way that you can adapt that, so you can adapt the language, so rather than using of environment once the relational 6 the term reciprocal roles you know you can use their language for a reciprocal role (.) and that then makes it collaborative for them. Erm it makes it more understandable for them the way that you can maked 11 bridged 7 be flexible with the model. So when you're doing the diagram how you can use like different colours Relation has the logentures so that they're naturally drawn to one colour erm how you can put staff in a different colour to them. Must explicit 9 I just think there's a lot of flexibility within the CAT model, I also think the time limited nature of CAT's - relational bridged. 10 our an agendra la adapting as a person cented r with pigter you direction world different really helpful 11 to hold 1 understand telalowdk Interviewer: ok Model 13 Respondent: because a lot of our patients have (.) been in an environment where they've for example had multiple rejections. So they might have been taken into care as a baby, they might have been in subject to a A 15 14 and out of children's home or foster placements or different (.) support workers residential hade of control prison and if (.) in their life they've often experienced multiple rejections or sense of abandonment or chome placements, or for obviously the offenders. They've often been through other secure hospitals or LP. 16 change 17 relationship that's have ended quite quickly. So I think the time limited nature of CAT 18 ditempowered? Interviewer: yes 19 Respondent: from the very beginning you're talking about the ending 20 Gerating a sense of Interviewer: ok 21 control Respondent: so I think for people with a (.) history of rejection you're already naming how that might 1 22 feel and you're already saying that this is going to be different than it was before because this is within allorent 23 experin 6their control different wany out relational expansive of control 24 Interviewer: ok right 25 Respondent: and you're talking about it from the very beginning so it's not going to be an ending equil 26 that's sudden, that's beyond their control that happens to them 6 Usheration 27 Again equal covert of particular interest tere covert of particular interest tere Interviewer: yes 28 Respondent: it's an ending that they're part of 29 Interviewer: ok 30 Aenow relationships. Respondent: and that then gives them (.) so they can consent then they can consent, again you can 31 vote from the very beginning as well you're saying we're going to have whatever 16/24/32 sessions 32 together and this is the structure of CAT and they know what they're consenting to 33



Appendix P: Example of refining initial codes into larger codes

Appendix Q: Coding a transcript extract

<u>+</u>		
Interviewer: Ok, brilliant. (.) The next question then is, how do you		
Besnondent: () That's a big question		
Interviewer: (laughs)		
Respondent: (laughs) Ok so. () I work in (place name) and I don't		
know if you know but we don't use "learning disability" any more we		
use "intellectual disability"		
Interviewer: Right		
Respondent: () And for me I talk about that sometimes So I did () I		
did a conference a couple of years back talking about CAT in teams		
and one of the things I was talking about how is actually how what	Cognitive difficulties as	
what the concept of intellectual disability means both to the person	basis for learning disability.	BPS definition
and to the team that are supporting them and when there's a kind of		
mismatch (.) We moved to "intellectual disability" to try and reflect the		
kind of global impact of what's happening in terms of their cognitive		
function so "learning" feels quite specific and it doesn't really talk		
about things like retention and problem solving and ability to kind of		
sequence, whereas "intellectual", to people who understand all this,		
that kind of, it kind of captures a bit more. And then the other reason		
that you know, there's a few reasons (trust name) did it, one was to fit		
in with research that's happening around the world more, because		
other countries are moving to ID rather than LD, and the other		
reason's about (.) because we were getting lots of referrals for like	Society's responsibility to	Model based on social
dyslexia and dyscalculia and that, and GP confusion about what's a	adapt	power or value
learning disability versus a learning difficulty, so if we stopped using	adapt	poner or raide
such similar terms, perhaps they might cotton on a bit more.		
Interviewer: Yeah.		
Respondent: (.) But I think there is something in that initial part about		
that, the way people process information.		
Interviewer: Yeah.		

Respondent: And how sometimes it just takes a lot longer to process it, and it, and it's hard for us to, when our brains work so quickly, for us to kind of realise that actually that person needs a bit, bit longer just, just to take that information in and the fact that we understand that X leads to, to Y leads to Z and we take that for granted. People we work with who've got intellectual disabilities, that, that isn't quite so	Cognitive difficulties as basis for learning disability.	BPS definition
logical. And then I think that does feed into CAT a little bit sometimes when you've got to bear in mind that, it might be quite obvious for us to draw a pattern out and to see it's leading there, but for this person this is brand spanking new and this is again, coming back to ZDP, you're having to do it bit by bit so when, when that happens in your life you feel like that then you do <u>this</u> , ok, and that might be a whole session, before you can move on to kind of joining those dots up but for me, intellectual disability is about the whole kind of, it's harder to retain the information, it's harder to understand what's happening and to communicate what you think and feel about that And L think	Enabled by relational scaffolding	Relational definition or model
that's, again that's a biggie, that kind of emotional vocabulary (.) I find that sometimes people you know they get the basics that they're kind of taught really early on, so they know what happy is, they not what sad is, they know what angry, well they know what they're <u>supposed</u> to be.	Limited emotional language or tolerance	Relational definition or model



Appendix R: Theme Development process

Appendix S: Example of the theme development process



Appendix T: Examples of how the codes were subsumed into sub themes and overall themes

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Code	Sub theme	Theme
Blending Multiple theories or		
models	Pragmatic application of clinical	
Using clinical intuition to guide	knowledge	
structure and process		
CAT stages and amount		
completed led by the client's		
needs	Client centred structure	Actively and fluidly individualising
Speed and pace led by the client		the process and structure of
A critical perspective on the		therapy
Psychotherapy File		
Individualising the CAT tools		
Increasing accessibility and	Framing the model in a relatable	
relatability to the model	yet faithful context	
Creativity of the model		
Creativity vs indenty tensions		
Emphasising the client in a more		
equal relational position within		
the system		
relational tomolate	Building relational equality	
Maximizing the client's emotional	building relational equality	
and relational autonomous		
functioning		
Facilitating more balanced		
relational dynamics within a		
system		
Collaboratively using CAT across a		Establishing a manageable
system where heinful		relational world
Uniting and stabilising a system's	-	
relational understanding and		
ongoing approach		
Enhancing a system's ability to	-	
cognitively and relationally	Building relational coherence and	
scaffold	predictability	
Containing and structuring the		
client's relational world		
Slowing down and consolidating	1	
an understanding of relational		
processes		
Increasing relational	1	
predictability		

+

Code A level of functional dependence Cognitive difficulties as basis for learning disability	BPS Definition	
Enabled by relational scaffolding Fragmented or confused sense of the relational world Limited emotional language or tolerance Relationally disempowered Utilising relational over cognitive intelligence	Relational definition or model	Pragmatic understanding based on intervention possibilities
Not possessing qualities that the modern western world values Perpetually subordinated or overlooked by society Serving a function to maintain societal power Socially segregated and fragmented Society's responsibility to adapt	Model based on social power or value	

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Codes	Subtheme	Theme
Evidence of an independently functioning system Evidence that the system has a collective ownership of difficulties Evidence of consistently	Achievement of a relationally	
implemented or scaffolded therapeutic intervention from system to client	attuned and cohesive system	
Evidence of a relationally balanced and attuned system		
Therapist felt sense of a different relationship with client		Awareness of and responsivity
Evidence of client's separate and autonomous sense of self	Evidence of flexible relational agency within the client	to the inter-relating nature of change
Client owns and revises usual relational patterns		
Capturing idiosyncratic aspects of change within and between systems		
Using psychometrics or symptom focussed methods if helpful to client or service	Expanding on reductionist or symptomatic assessment of change	
Stakeholder perception of helpfulness		

Appendix U: Reflective statement

I am a trainee clinical psychologist at the University of Liverpool. My experience of the clinical doctorate <u>have</u> been that the course place a strong emphasis on human rights and collaborative working with all stakeholders across the National Health Service. The course has provided information on a variety of different models and I feel there has been equal time and attention to payed to <u>all of</u> these models.

I initially became interested in Cognitive Analytic Therapy due to a previous clinical supervisor who I very much respected during my time as an assistant psychologist. He had always spoken highly of the model and its ability to provide a collaborative and understandable framework for individual with mental health difficulties. His background had been in learning disabilities and he had spoken about how useful it could be in helping individuals with learning disabilities. I had attended one or two training sessions on the model within assistant psychologist groups and so had some awareness of some of the basic principles of the model including reciprocal roles and how the process of therapy might work.

I started the Doctorate course I received some further training from experienced lecturers. As my training experiences progressed I was able to use CAT in a forensic learning disabilities service. I used this with an individual to understand presenting risks and think about how this person might be supported into a community setting. I attempted to use this with the individual's supporting staff team – I found this very challenging. I experienced the staff team as particularly resistant to my involvement and I found it very challenging to work collaboratively with them to understand the service user's difficulties within a CAT framework. The team at that time were undertaking Positive Behaviour Support training and I understood had limited resources and capacity. This experience led me to wonder how helpful the CAT model could be in certain settings and I found the experience daunting at times.

Within my third year there are several factors which may be relevant to the present research project. Firstly, I have been undertaking a yearlong specialist placement in older adult services across inpatient and community. My supervisors have had particular interests in neuropsychology and Acceptance and Commitment Therapy which are the two predominant models I have focussed on during placement. I have limited experience of CAT during the placement although have tried to formulate using this model on a few occasions. Neuropsychology in older adult settings is typically used to inform a diagnosis of dementia. This seems somewhat aligned with a medical model or positivist view that a diagnosis of dementia exists and practitioners might seek to remedy or cure these. In this way, the concept of intelligence has been used mainly as a cognitive construct used to inform medical diagnoses. My experience is that this has generally been seen as useful by other professionals, however there has been less appreciation or time for how this information might inform a rich psychological understanding of an individual's life and background.

This is my second attempt to complete a Doctorate Empirical paper. My first attempt was a case series which aimed to evaluate the effectiveness of CAT with people with learning disabilities. This used psychometric measures at different time points to try and capture effectiveness. I have also been involved in completing a meta-analysis (I had completed the majority of this before starting the present project). This aimed to combine effect sizes from multiple studies on a series of psychometric measures to consider overall effectiveness. These two projects initially influenced my understanding of effectiveness and this was the focus of my interview questions in earlier drafts. Through discussions with supervisors and external advisors, I reflected more on the limitations of these ways of capturing effectiveness and thought about the limitations of framing questions in these ways. Although I endeavoured to remain open to my understanding of effectiveness, the focus on psychometric measures and objectivity may have influenced my interpretations of the data, however as may the conversation I had with my supervisors which did lead me to consciously question my previous understanding.

There are other personal factors which may of relevance to the present research study. Firstly, I have a younger brother who was given a diagnosis of autism when I was about 6 years old. I have thus had several life experiences of not only experiencing what might be termed difference, I have also had some exposure to the negative and exclusive culture which can accompany such experiences and some lived experience of being a part of a family system which has been influenced by difference and disability. I have had no personal exposure to professional involvement or formal intervention at a systemic level. I have often been left feeling very passionately about exclusion of others and particularly how society might relate or understand the notion of disability or difference. I would suggest that this has partly been influenced by my sexuality - I identify as a gay man and have had experiences of exclusion and discrimination which have led meto question parts of my identity. Having been able to develop a more confident and assured sense of my own identity, I still witness a brother who is dependent on the systems around him with limited opportunity for independence and identitydevelopment. This still brings with it a sense of sadness and anger which may impact on how I understand the data, how I interpret this, and how much significance I might place on various parts of it.

I have asked all participants to comment on their political stance, this is to consider how their social and political views might influence their understanding of the world and ultimately how they understand social constructs such as 'learning disability'. It seems only fair to comment on this also as a reflective researcher. Although I do not feel hugely knowledgeable, confident or active in my political stance, I would say I am largely drawn toward liberalist and socialist ideologies. I believe that increased equality at a societal and political level would feed into a variety of negative social outcomes (e.g. poverty), which would in turn feed into better and more stable conditions for living, increase environmental and social stability, which I believe could impact on individual's sense of psychological stability. I actively reject some of the notions that associated with conservative politics such as placing significance on individualism. Having said this, I am not politically active and am not a member of a particular political party. Appendix V: Reflective journal examples throughout the research process

Reflective Journal during familiarisation stage

08/09/18 – I have started to familiarise myself with the data – I'm feeling particularly drawn to the models of LD information ... I have reminded myself about the medical and social models of LD. Interestingly I am drawn more to social models of LD and feel as though medical models are problematising and locate difficulties within the individual and create a sense of othering. <u>However</u> I can acknowledge criticisms that this does not necessarily provide support at a more immediate level. I am finding myself becoming more critical of the medical ... CAT is seeming to explore a more contextual and relational approach to helping and supporting people. I have tried to hold these thoughts in mind during the familiarisation stage and not let them influence my interpretations of data.

Reflective Journal during the initial coding phase

19/10/18 – Just had supervision with my primary supervisor to discuss my first attempt at initial codes. One of the key discussions within supervision was the difference between semantic and latent coding – my initial attempt was much more aligned to semantic coding. I've been reflecting on the difference between the two and how I can advance my thinking and the analysis further by developing codes which move beyond simply labelling and trying to think in depth about the concepts arising. There were also some discussions which caused me to reflect on the distinctness of not only the ...I think establishing how codes are different from one another has helped ... it has been useful to clearly think about what information should be captured within each question – rather than effectiveness focusing on parts to be adapted, this clearly needs to be around how effectiveness is being captured. Reading and rereading the transcripts with a single question in mind has been suggested as helpful – only coding information relevant to that question.

Reflective Journal during the searching for themes phase

28/11/18 – I am starting to develop a sense that power is important for CAT clinicians. Although some have named this more explicitly, others are talking about it implicitly. There seems to be a theme of balancing or addressing some of the unbalanced power dynamics. I was thinking about developing a theme around cognitive and relational balancing – are CAT clinicians trying to balance systems? Also discussed in supervision was the idea of a social model of therapy – bear this in mind for the analysis.

Reflective Journal during the reviewing themes

15/12/18 – it seems clear to me that relationally holding and containing a staff team is an important concept for CAT clinicians, as is decreasing disempowerment. This does not adequately capture the core adaptations that clinicians are making to their practice however – what about the use of theory and pictures etc? Think about alternative themes to capture this?

Reflective Journal during the defining and naming themes phase 22/12/18 – I have decided to create a new theme and subthemes for the core adaptations that the CAT clinicians are using. There was a tension between staying true to how clinicians were conceptualising adaptations vs trying to capture as much of the content as elegantly as possible. I think by separating the themes out in this way, it captures a wealth of data but also stays true to the concepts of CAT. I think this will be more useful for the practical implications of the research – considering trainees and others using CAT in this setting may benefit from knowing the expansiveness of clinicians' practice.

Reflective Journal during the report writing phase

04/01/19 – Just had supervision and it is <u>really important</u> to ground the results in the data. Go through and look at extracts and small quotes which can supplement the points you are making. I think I had thought initially that key and substantial quotes should be the main exemplifying points however, there can be quotes used of one or two words to supplement the body of the text. Remember – this is about selling the argument in a convincing way.