

An Evaluation of the Influence of CAT Personal Reformulations on Reflective Capacity in Trainee Clinical Psychologists

ZOE HAMILTON, ANNA TICKLE,
HAYLEY COOPER, NIMA MOGHADDAM

Zoe Hamilton, Clinical Psychologist, Trent Doctorate in Clinical Psychology, University of Nottingham, UK
Corresponding author: Yang Fujia Building, B Floor, Jubilee Campus, University of Nottingham, Wollaton Road, Nottingham, NG8 1BB. Tel: 0115 846 6646. e-mail: zoe.hamilton@nottingham.ac.uk

Dr Anna Tickle, Academic and Research Tutor, Trent Doctorate in Clinical Psychology, University of Nottingham, UK

Dr Hayley Cooper, Senior Clinical Tutor, Trent Doctorate in Clinical Psychology, University of Nottingham, UK

Dr Nima Moghaddam, Research Tutor, Trent Doctorate in Clinical Psychology, University of Lincoln, UK

Abstract:

Introduction: Cognitive Analytic Therapy (CAT) ‘personal reformulations’ (PRs) have been offered at some Doctorate in Clinical Psychology (DClinPsy) programmes as an opportunity for continuing personal and professional development through reflection. It might be hoped that CAT PRs would increase reflective capacity, although no published research on reflective capacity and CAT PRs exists.

Aims: This service evaluation aimed to evaluate the effect of CAT PRs on reflective capacity and to understand how they were experienced by trainees.

Methods: A mixed methods approach was used. The quantitative Reflective Practice Questionnaire was administered pre- and post-CAT PRs, and thematic analysis was used on qualitative data collected in an online survey.

Results: Twenty trainees participated. There were no significant group-level differences between pre- and post-CAT PR scores on components of reflection. Reliable Change Index (RCI) calculations indicated some individual-level improvements on nine sub-scales,

although a mixed picture is found. Qualitative data suggests the experience was helpful for personal and professional development for some trainees, although issues with timing and the content of sessions were identified.

Conclusions: Data does not support CAT PRs as the specific mechanism for change, and only a small number of participants indicated how changes in reflection would translate to practice. Findings may reflect overambition in expecting CAT PRs to increase reflective capacity, given their brevity, or methodological limitations of the evaluation. There are inherent challenges in disentangling influences of CAT PRs from other learning occurring through academic and placement-based training.

Keywords:

Cognitive Analytic Therapy, personal reformulation, reflective capacity, trainee clinical psychologist*, reflective practice.

Introduction

Background

Doctorate in Clinical Psychology (DClinPsy) training programmes have embedded a 'reflective-practitioner' stance in training criteria (Galloway, Webster, Howey & Robertson, 2003), emphasising the synthesis of technical and reflective skills to enable self-awareness and reflective capacity. This is in line with the Health and Care Professions Council (HCPC) Standards of Proficiency (HCPC, 2019), and the British Psychological Society (BPS) practice guidelines (BPS, 2017). However, there is a lack of empirical support for reflection directly improving practitioner outcomes (Lavender, 2003), perhaps due to challenges in experimentally studying reflective capacity without a unified definition (Lyons, Mason, Nutt & Keville, 2019).

Several definitions of reflective capacity and models of reflective processes have been developed and applied to training and practice. Reflection is considered by Schön (1987) as a deliberate act of attending to assumptions and beliefs occurring during (in action) or after (on action) an event. Other theorists consider it a process or cycle of doing, reviewing, concluding and planning, influencing skills and discovery (Kolb, 1984) and change (Gibbs, 1998). However, a challenge amongst existing definitions is that proposed reflective processes are highly variable and difficult to operationalise, resulting in heterogeneity in attempts to measure and observe reflection (Gillmer & Marckus, 2003).

One commonality in the literature is of reflection as an internal process; therefore, it could be argued that attempting to evaluate the properties of an atheoretical concept using pre-defined outcomes is reductionist (Galloway *et al.*, 2003). Nonetheless, evidence-based practice necessitates the critical evaluation of processes widely used by healthcare professionals. Further rationale for studying reflective capacity in healthcare professions comes from evidence of the benefits of reflective practices, including reducing practitioner burnout (Nielsen & Tulinius, 2009) and improved practitioner empathy for clients (Spendelow & Butler, 2016). This is of importance for trainee clinical psychologists who face profession-specific demands that increase vulnerability to distress (Dunning, 2006), such as professional self-doubt and long clinical hours (Gilroy, Carroll & Murra, 2002).

Increasing Reflective Capacity

Opportunities to increase reflective capacity can be facilitated via numerous therapeutic modalities, through personal reflection or exercises within personal therapy, peer learning, clinical supervision or mentorship experiences and reflective practice groups.

Bennett-Levy and Lee (2014) found such exercises can enhance self-reported reflective capacity, but focused specifically on reflection in Cognitive Behavioural Therapy. Although opportunities for developing reflective skills, using therapeutic modalities, are available in DCLinPsy training, they are often extracurricular (Wigg, Cushway, & Neal, 2011). This renders reflection a challenge to routinely evaluate and to determine the impact on client outcomes.

Evaluating Reflective Capacity

Research on reflective capacity has been largely qualitative evaluations exploring the appraisal of reflective capacity, rather than the development of reflective skills (Moon, 2013). Quantitative studies using valid and reliable measurement tools and a pre-post design may be used to demonstrate whether reflective practices influence reflective capacity more robustly than qualitative studies. The Reflective Practice Questionnaire (RPQ; Priddis & Rogers, 2017) was developed as a direct measure of reflective capacity and associated psychological constructs. Research has demonstrated the utility of this measure to evaluate the acquisition of reflective skills (Rogers *et al.*, 2019). While there have

been other attempts to develop quantitative measures of reflective practice, these have been designed for specific samples or the appraisal of one specific reflective activity, rather than reflective capacity as a construct (Priddis & Rogers, 2017), making the RPQ the only available tool for the measurement of the latter.

Quantitative and qualitative approaches can examine different aspects of the development of reflective capacity and do so from different epistemological positions. These could be seen as opposing positions but mixed methods approaches, which intentionally use quantitative and qualitative data, maximise the strengths and minimise the weaknesses of each type of data, and can be useful for studying complex phenomena and hard-to-measure constructs (Creswell *et al.*, 2011). There is an absence of mixed methods research regarding reflective practice, which would arguably be appropriate for developing an understanding of the construct of reflective capacity, given its complexities, and thus is the approach taken in this evaluation.

Cognitive Analytic Therapy (CAT) and Reflective Capacity

Cognitive Analytic Therapy (CAT) uses sequential diagrammatic reformulations, map sequences of external, mental and behavioural events, and their repetition in self-management and relationships (Ryle & Kerr, 2003). This process has been adapted to develop 'personal reformulation' (PR); PRs are used with trainee clinical psychologists and therapists for personal and professional development that involves mapping personal patterns of relating relevant to work roles with clients, colleagues and peers. (Catalyse, 2020). CAT PRs typically consist of either a single session of 2.5 hours with a break, or a two-hour session with a one hour follow-up session, usually a month later (Catalyse, 2020). During CAT PRs, a visual representation of procedural patterns and sequences of actions is created, including consideration of the impact of and potential responses to these. CAT PRs are inherently a structured and facilitated process of reflection and thus might be expected to lead to increases in reflective capacity.

CAT PRs, as an optional part of an intensive week-long CAT training course for mental health professionals working in Community Mental Health Teams, have been shown to be personally helpful and valuable in understanding CAT from a client's perspective, although PRs were also viewed by some as 'nerve wracking' or 'too short' (Thompson *et al.*, 2008, p. 134). It is important to note that the details of the impact of PR relative to the rest of the training package, including how many of the

12 staff opted into this element of the training. An unpublished evaluation of CAT PRs with trainees at one DClInPsy programme highlighted their potential to improve self-reported personal understanding and awareness, and discovery of the potential experience of clients (Davies, 2018). However, despite extra-curricular PRs being offered by some DClInPsy programmes, there are no robust published evaluations of their impact.

Service

The Trent DClInPsy programme is one of 30 HCPC approved and BPS accredited professional clinical psychology training courses in the United Kingdom. The programme places emphasis on the development of reflective skills via multiple methods including reflective practice groups, supervision, and written reflective assignments (Clearing House for Postgraduate Courses in Clinical Psychology, 2019). Continuous professional development (CPD) is also a requirement to equip trainees with the competencies, skills and knowledge to enhance wellbeing at work and prevent burnout and stress (Trent Doctoral Training Programme in Clinical Psychology, 2019).

CAT PRs

To support CPD, the programme offered funded individual CAT PRs to all first- and second-year trainees, facilitated by one of two external CAT practitioners. These were optional but funded for all who wished to take them up. Sessions consisted of an initial two-hour session and a one-hour follow up session approximately one month later, to allow time for strategies identified in the first session to be utilised. The focus of the initial session was on a method of 'mapping' relational (or reciprocal) roles, the feelings that occur during engagement with these roles, and how these are managed. The 'map' serves as a tool of recognition and trainees were encouraged to take the map away. The initial session finished with reflective conversation about the map and active strategies to work on, such as adaptation of unhelpful patterns and 'exits' from these. The follow up session provided a space to review the 'map' and any attempted behaviour change, and to reflect on the experience of the process.

Aims

This service evaluation examined outcomes for trainee clinical psychologists who completed a CAT personal reformulation, with specific aims to:

- Evaluate the effectiveness of CAT PRs as a tool to improve reflective capacity of trainees.
- Gain an understanding of how CAT PRs were experienced by trainees, including whether and how they have impacted on clinical practice.

Method

Design

A mixed-methodology design was employed. Data was collected in the form of paper-based quantitative Likert-scale surveys and qualitative online survey data used to contextualise findings. As an evaluation of existing practice, the project was exempt from ethical review but conducted in line with ethical principles and guidelines.

Participants

First-and-second year trainee clinical psychologists from the Trent programme who accepted the offer of individual CAT PRs ($n = 31$) were invited to complete a validated measure of reflective capacity before and after CAT PRs, and an online survey four weeks later.

Outcome Measures

Reflective Practice Questionnaire (RPQ).

The RPQ (Priddis & Rogers, 2017) is a 40-item self-report measure comprising ten 4-item sub-scales. The first four sub-scales: Reflective-in-action (RiA), Reflective-on-action (RoA), Reflection with others (RO) and Self-appraisal (SA) measure reflective capacity. Related constructs are also measured, named Desire for Improvement (Dfi), Confidence – General (CG), Confidence – Communication (CC), Uncertainty (Unc), Stress interacting with Clients (SiC), and Job Satisfaction (JS). Responses are given on a Likert scale of 1-6 (1= not at all, 6 = extremely). Sub-scale scores are calculated by summing and averaging the four items in each

sub-scale. Priddis and Rogers (2017) report good internal consistency of survey items and reliability of this questionnaire to measure reflective capacity across public, mental health practitioner and medical student samples (Rogers *et al.*, 2019).

CAT reformulation evaluation questionnaire.

JISC online survey software was used to construct a survey combining Likert scales and comment boxes. Reflective practice questions utilised in SP/SR exercises (Bennett-Levy *et al.*, 2009) were included, adapted for a specific CAT focus: (1) Observe the experience, (2) Clarify the experience, (3) Implications of the experience for clinical practice, (4) Implications of the experience for how I see myself as a person or therapist, (5) Implications of the experience for understanding of CAT therapy and theory.

Procedure

Phase One.

All trainees undertaking CAT PRs were provided with a hard copy of the RPQ in their university in-tray and prompted by e-mail to complete this prior to the CAT PR and return it in a numbered envelope for anonymity. Hard copies of the RPQ were provided due to the measure being standardised, and for anonymity for the researcher to match RPQs before and after CAT PRs. Trainees were informed in e-mails that by engaging in the study they were giving informed consent to participate. Trainees then completed CAT PRs.

Phase Two.

Two weeks following the second PR session, trainees were requested by e-mail to collect a follow-up RPQ from a university site. Post-measures were numbered corresponding to the initial numbered envelope and returned to the first author anonymously. The second author held a master copy of names corresponding to numbers in a locked cabinet and office, to protect participant anonymity. A follow-up reminder e-mail was circulated a week later.

Phase Three.

The anonymised remote online survey was distributed via e-mail four weeks following the second PR session and trainees were given up to four weeks to complete this. Although to some extent arbitrary, the timescale was chosen to try to balance giving trainees time to apply the learning from the PR session, and recognise any changes in thinking or practice, against the PRs seeming distant in light of changes in placements.

Analysis

Analysis of Quantitative Data

Anonymised data were entered into an Excel spreadsheet. IBM SPSS Statistics for Windows, Version 24 was used for analysis. Wilcoxon Signed Ranks tests were conducted as data did not meet assumptions for parametric tests. Reliable Change Index (RCI) criterion were utilised to conduct individual-level analysis on quantitative data.

Analysis of Qualitative Data

Open text responses were analysed using inductive thematic analysis (Braun and Clarke, 2006).

Results

Of those invited to take part ($n = 31$), 16 (52%) were in the first year of DCLinPsy training and 15 (48%) in the second year. Pre and post RPQs were returned by 20 trainees (64%). Four returned pre- and two returned follow-up RPQs only, totalling 26 participants (83% response rate). Over two thirds of participants (64%) responded to the online survey. Participant numbers for RPQs were not matched with online survey data although for both the RPQ and the online survey collectively, nine (45%) were in their second year and 11 (55%) in their first year of DCLinPsy training on the Trent programme.

RPQ Results

Table 1 reports descriptive statistics and the results of within-group difference calculations for pre- and post-CAT reformulation RPQ scores. At the group level, i.e., looking at aggregated data from all participants, there were no significant pre-post differences in RPQ scores on any subscales.

Reliable change calculations were computed at the level of individual pre- and post-RPQ mean scores, according to the method summarised in Evans, Margison, and Barkham (1998). Criterion values were computed based on test-retest reliability values (Cronbach's alpha), and standard deviations for each sub-scale as presented in Priddis and Rogers (2017). Changes of greater magnitude than the criterion were considered to indicate reliable change.

Table 1**Results of Wilcoxon Signed Rank Tests for pre- and post CAT reformulation RPQ scores**

RPQ sub-scale	Pretest median (IQR)	Posttest median (IQR)	Z	p value
Reflective in action (RiA) ^b	4.25 (3.44 – 4.5)	4 (3.25 – 4.25)	-.966	.319
Reflective on action (RoA) ^a	4.50 (4.19 – 5)	4.75 (3.88 – 5.06)	-.196	.845
Reflective with others (RO) ^b	5 (4.5 – 5.31)	4.75 (4.18 – 5.25)	-.954	.340
Self-appraisal (SA) ^b	4.25 (4 – 4.5)	4.25 (3.62 – 4.75)	-.745	.456
Desire for improvement	5.62 (5 – 6)	5.37 (4.44 – 5.75)	-1.54	.123
Confidence – general (CG) ^a	2.12 (1.25 – 2.56)	2.12 (1.56 – 3.25)	-.619	.536
Confidence – communication (CC) ^a	4.25 (4 – 4.5)	4.5 (3.69 – 5)	-.732	.464
Uncertainty (Unc) ^b	3.62 (3 – 4.06)	3 (2.44 – 3.87)	-1.61	.105
Stress interacting with clients (SiC) ^b	3.38 (2.62 – 3.75)	3.12 (2.19 – 3.56)	-1.60	.109
Job satisfaction (JS) ^b	5.12 (4.43 – 5.75)	4.87 (2.06 – 5.75)	-.385	.700
Reflective Capacity (RC) ^b	4.44 (4.17 – 4.64)	4.44 (3.97 – 4.78)	-5.18	.605

Note. RPQ = Reflective Practice Questionnaire, IQR = Interquartile range. RPQ sub-scales were scored on a range from 1-6, where higher scores indicate higher self-reported ratings. One RPQ item (number 37) was reverse scored prior to analysis.

^aBased on negative ranks

^bBased on positive ranks

Table 2 Reliable Change Index Summary Statistics for RPQ sub-scales

Table 2: *Reliable Change Index Summary Statistics for RPQ sub-scales*

RPQ sub-scale	Reliable Change Criterion*	Reliable deterioration		Uncertain change		Reliable improvement	
		n	%	n	%	n	%
RiA	1.25	0	0	20	100	0	0
RoA	1.16	0	0	18	90	2	10
RO	0.56	3	15	14	70	3	15
SA	0.68	2	10	17	85	1	5
Dfi	0.54	4	20	14	70	2	10
CG	0.61	2	10	11	55	7	35
CC	0.55	2	10	13	65	5	25
Unc**	0.56	1	5	13	65	6	30
SiC**	0.66	2	10	13	65	5	25
JS	0.66	3	15	14	70	3	15

Note. RPQ = Reflective Practice Questionnaire, RiA = Reflective-in-action, RoA = Reflective-on-action, RO = Reflective with others, SA = Self-appraisal, Dfi = Desire for improvement, CG = Confidence – general, CC = Confidence – communication, Unc = Uncertainty, SiC = Stress interacting with clients, JS = Job satisfaction.

*Reliable Change Criterion = minimum change score needed for change to be statistically reliable

**Lower score = improvement

Table 2 summarises reliable change calculations in this sample. To determine reliable change, participants who did not provide pre-measures ($n = 2$) or post-measures ($n = 4$) were excluded from further analysis, leaving 20 (64%) participants.

Most scores fell under the category of uncertain change (73.5%), indicating difficulty detecting reliable change between the two time points on the RPQ. Across all ten sub-scales, 19 scores showed a reliable deterioration, and 34 demonstrated a reliable improvement. No reliable change was indicated for 'Reflective-in-action'. 'Reflective with others' demonstrated equal percentage deterioration (15%) to improvement (15%), as did the 'Job Satisfaction' sub-scale. Only a very small proportion (2%) demonstrated a reliable improvement on 'Reflective-on-action'.

Online Survey Results

Likert scale data from the online CAT PR survey for questions 16-20 (Table 3) were used to consider the effectiveness of the CAT PRs on reflective capacity and associated psychological constructs.

Most respondents rated above the mid-way point on Likert scales regarding CAT PR's impact on ability to work with clients, increase knowledge and awareness of emotions on self, others, and behaviour; and on increasing overall personal awareness. Mixed results were found regarding whether CAT PRs increased awareness of how respondents' own emotions might affect others, and ability to work with clients.

Table 3 Lickert scale data for CAT reformulation survey questions 16–20 from online survey

Questionnaire item	Not at all (1)	Slightly (2)	Moderately (3)	Very much (4)	A lot (5)
Did the CAT reformulation session increase your personal awareness of yourself?	0% ($n=0$)	10% ($n=2$)	15% ($n=3$)	60% ($n=12$)	15% ($n=3$)
Did the CAT reformulation session increase your awareness of how your own emotions affect your behaviour?	0% ($n=0$)	10% ($n=2$)	15% ($n=3$)	65% ($n=13$)	30% ($n=6$)
Did the CAT reformulation session increase your awareness of how your emotions affect others?	10% ($n=2$)	30% ($n=6$)	15% ($n=3$)	40% ($n=8$)	5% ($n=1$)
Did the CAT reformulation session increase your knowledge of what helps your job performance or what may hinder it?	0% ($n=0$)	0% ($n=0$)	25% ($n=5$)	60% ($n=12$)	15% ($n=3$)
Do you feel that the CAT reformulation session has or will increase your ability to work with clients?	5% ($n=1$)	15% ($n=3$)	40% ($n=8$)	30% ($n=6$)	30% ($n=6$)

Thematic analysis of the qualitative data (TA; Braun & Clarke, 2006) led to the identification of four themes, with subthemes, relating to a range of ways in which trainees used their learning. Gender neutral pseudonyms were created for participants.

Seeing the unseen

Some identified CAT PRs as allowing for recognition of factors that may have otherwise gone unexamined.

Self.

Five participants identified the process as affording previously absent opportunities for self-discovery. One had taken reflections forward into placement: 'Without this map I think I would not have reflected on this experience with my clinical supervisor' (Mo). All five acknowledged that the CAT PR was linked to self-reflection they 'may not have pursued otherwise' (Sasha).

Self in relation to clients

Five of six participants felt CAT PRs were helpful for reflecting on their own experiences in session with clients, with one recognising 'my responses can be unhelpful for clients' (Alex). The remaining participant reported more clarity about their clients' relational patterns than their own following CAT PR.

Self as client

Six noted the experience offered insight into client experience, for example 'a better understanding of how our clients feel' (Ziggy), but did not report specific details of this insight or how it impacted them and their work.

Application and use

Most participants identified going into the process with an intent to use it as a personal or professional development experience, and there was some evidence that they made use of their learning after the CAT PRs.

Recognising patterns

Prior to PRs, some hoped for greater awareness in 'interactions with clients and other professionals' (Yoshi), and others to reflect on patterns 'with clients and supervisors' (Sasha).

However, there was no indication that new awareness necessarily led to behavioural change, with only two participants linking recognising patterns with utilising exits, as per the intent of CAT PRs. Further, contradictory information from Max noted: 'I have not changed my behaviour because of the reformulation because it did not address my readiness for change', highlighting limitations of potential increased awareness on application to practice.

Intent to apply

Fifteen trainees identified intent to use recognition of patterns, for example to 'be more open with colleagues' (Ainsley), use CAT 'effectively in therapy' (Jude), and 'reflect with my supervisor about a difficult experience' (Mo). One third of these trainees spoke of benefitting from using the CAT 'map' specifically with supervisors and for one participant with their mentor, although how this was used was not specified.

Experience of the process

Trainees identified factors relevant to relational and practical elements of CAT PRs.

Safe space

Seven trainees identified the experience as validating and therapeutic, e.g. 'feeling like someone understood' (Reine). However, only Jude related this specifically to the use of CAT PRs: 'It helps in normalising that we all have relational patterns and reciprocal roles'. For others, a validating space was beneficial but not necessarily due to CAT. A small number of participants valued an external facilitator due to 'absence of scrutiny from the course'.

Discomfort and benefit

Eight participants regarded the process as emotionally difficult, with some reporting feeling 'vulnerable' (Ziggy), and 'initially overwhelmed' (Jamie). None associated such feelings with aversive outcomes, and some suggested they 'later felt empowered' (Jamie), or that the facilitator created a space that was 'challenging but comfortable' (Oli).

Timing and clarity

Three trainees identified the timing of the CAT PRs as inconvenient relative to placements, resulting in fewer opportunities to apply learning. However, one participant directly contradicted views on the length, reporting timing as ‘really helpful to give you space to reflect upon it’ (Alex). Two desired more time between CAT PRs, e.g. to ‘think about some exits I may use’ (Ziggy). Although a small number raised this as an issue, comments regarding timing were highly varied and therefore salient. A small number of participants expressed a lack of clarity, having had expectations of focusing ‘on relevant personal patterns of relating’ (Max), but finding sessions were ‘framed as not being personal therapy’ (Jude). For some ‘it was really difficult at times not to move into my personal life’ (Alex). Contracting regarding the use of a therapeutic process for professional development is worth consideration.

Personal professional development

Becoming a better therapist

Over half of participants thought the process would help them to develop as therapists. This was linked to CAT for some, e.g. ‘I feel I am now more able to notice when I am being drawn into unhelpful patterns with particular clients’ (Alex). Most talked about more general development of clinical and personal skills. One identified a specific CAT-related change in ‘the way I offer endings to clients and colleagues’ (Stevie).

Being human/good enough

A small number of trainees identified changes in self-perception such as being ‘more comfortable with being imperfect’ (Sasha) and ‘good enough’ (Andy). Two participants underscored the value of being reminded to utilise self-care.

Discussion

This evaluation aimed to address the lack of mixed methods research into structured reflective opportunities within DCLinPsy training, with a focus on CAT PRs.

Aim 1: To evaluate the effectiveness of CAT personal reformulations as a tool to improve reflective capacity of trainees.

Quantitative RPQ results did not indicate any significant (aggregate) change in reflective capacity, or associated psychological constructs following CAT PRs in this sample of trainees. Evidence exists for the utility of the RPQ in detecting practitioner differences in reflective capacity across sub-scales (Priddis & Rogers, 2017; Rogers *et al.*, 2019), although sample sizes have been somewhat higher in published research. Individual-level analyses indicated most participants reported no reliable change following CAT PRs. In fact, no reliable changes were detected in core components of reflection (Reflective-in-action, Reflective-on-action, Reflective with others) This could indicate that CAT PRs were not effective as a tool to improve the reflective capacity of trainees in this sample.

Individual level improvements were observed for ‘Confidence – general’ and ‘Confidence – communication’ for some participants. This is consistent with a mental health practitioner sample described by Rogers and Priddis (2017), who reported high levels of confidence as measured by the RPQ. It is not possible to conclude by what methods an increase in confidence may have occurred. CAT utilises a specific process of mapping through modelling and communication, and CAT PRs may have led to an increase in self-rated confidence through this process. However, there is research evidence that confidence may be subject to over-estimation (Ames & Kamrath, 2004), and a reliable shift in confidence in this sample is not linked to evidence of changes in clinical practice, such as increased competence.

For some participants, CAT PRs were associated with reductions on the sub-scales ‘Uncertainty’ and ‘Stress interacting with clients’. Further, qualitative data indicated that CAT PRs provided opportunities for trainees to see patterns previously unseen, and to allow themselves to be imperfect in their practice. This may indicate why improvements in ‘Uncertainty’ and ‘Stress interacting with clients’ were found for some, although quantitative and qualitative results were not matched in this evaluation.

Given the brevity of intervention, it might be considered ambitious

to expect that two CAT PR sessions would lead to measurable increases in reflective capacity, despite them offering a facilitated and structured process of reflection. It may be that longer-term interventions are required to increase reflective skills. That said, there is evidence from the qualitative data that trainees did experience some changes in reflective capacity, for example through taking reflections to clinical supervision and considering their implications for clinical practice. It may then be that the quantitative findings may reflect the methodology of the evaluation. One disadvantage of the PR tool is its brevity, and CAT PRs may not provide a comprehensive opportunity for meaningful changes in reflective capacity. It may also be the case that the evaluation did not allow sufficient time following the PR for trainees to embed their reflections in practice and that a follow-up completion of the RPQ may have reflected further change. In addition, while the RPQ is a validated tool measuring reflective capacity and associated psychological constructs, it may not capture outcomes pertinent to the typical intent or content of CAT PRs and there may be a need to develop a more specific tool.

Although possibly a reflection of the methodology, in the absence of quantitative evidence of improvements in reflective capacity and data on how respondents reflect on and in practice, results cannot be said to reflect meaningful post CAT PR improvements in reflective capacity. Furthermore, improvements in psychological constructs associated with reflective capacity such as uncertainty, confidence and stress interacting with clients may also be influenced by clinical experiences on placement and other components of DClInPsy training not captured in this evaluation, such as teaching and reflective practice groups.

Quantitative online survey data indicated improvements in self-awareness, but there was a mixed picture for increased knowledge of emotions affecting others and ability to interact with clients, with some participants rating 'not at all' to these questions. This may indicate the ability of CAT PRs to improve personal awareness, in the absence of ability to affect changes in client work. In fact, qualitative data provides supportive evidence that CAT PRs improved components of reflective capacity for some trainees, however this is not supported by quantitative data, and limited information was given regarding how changes were used or applied to clinical practice. Due to the non-visible nature of reflection, it can be a challenge to explore the relationship between changes in reflection and changes in clinical practice (Mann, Gordon & MacLeod, 2009), calling into question the clinical utility of reflection amongst healthcare professionals in the absence of supportive evidence.

It is also possible for some participants that reported experiences of discomfort arising from the CAT RPs and dissatisfaction with the timing of and between sessions may have impacted trainees' ability to fully benefit and reduced the likelihood of change in reflective capacity.

Aim 2: To gain an understanding of how CAT personal reformulation sessions were experienced by trainees, including how they have impacted on clinical practice.

It is difficult to disentangle the effects of CAT PRs from other CPD and training activities, such as placement and teaching, which may influence reflective capacity. Qualitative data provides some evidence of partial changes in awareness of self and others. CAT is a relational approach which requires attunement to the roles of self and others, including unconscious processes (Ryle, Poynton, & Brockman, 1990) and identification of 'exits' from unhelpful ways of relating (Ryle & Kerr, 2003). Therefore, it is in line with expectations that CAT PRs supported the identification of relational patterns for some trainees, including previously hidden ones. However, quantitative data did not demonstrate the effectiveness of CAT PRs to improve reflective capacity, calling into question the specific skills or metacompetencies that CAT PRs may be expected to influence. In fact, trainees reported that the more general therapeutic processes, rather than CAT specific elements, were most helpful for personal and professional development. Considering research evidence that therapeutic outcomes are heavily influenced by general rather than specific components (Wampold & Imel, 2015), the most important mechanisms of change in these sessions may have been the therapeutic relationship and safe space provided.

CAT PRs were identified by some trainees as supporting their understanding of themselves in relation to clients, as well as opportunities to experience a client's perspective. Research suggests that greater self-awareness can increase empathy and understanding of clients' needs (Strozier & Stacey, 2001). A small number of trainees also identified intent to apply their discoveries on placement with supervisors and colleagues, which may indicate the positive impact of CAT PRs on trainees' clinical work. However, despite speaking of greater self-awareness, most trainees did not discuss how this would impact on their behaviour. Without data on changes in practice for trainees, it is difficult to determine how, if at all, CAT PRs impacted on trainees' clinical work and client outcomes, over and above self-reported increased awareness.

A theme regarding the process of CAT PRs as uncomfortable yet helpful for some may indicate the experience as one of self-discovery. Chaddock (2007) found that new insight and self-awareness can result in a questioning of confidence and competence. However, RCI criterion suggest that confidence increased reliably in a small proportion of trainees, which would contradict an expectation that confidence may decrease as trainees become more aware of their skill level (Bennett-Levy & Beedie, 2007). The evaluation would have benefitted from attempts to match qualitative and quantitative data to further contextualise these findings.

Strengths, Limitations and Future Directions

This evaluation is the first to use the RPQ as a measure of change in a pre-post intervention design, and to attempt to evaluate the ability of CAT PRs to improve reflective capacity. However, aggregate differences were not detected with the RPQ in this study. More longitudinal research with larger participant samples may be required to determine the utility of the RPQ for examining within-group differences more generally. To disentangle the effects of CAT PRs relative to other reflective opportunities, the RPQ may not be applicable to future evaluation of CAT PRs. Use of a reflective measure oriented to CAT theory could support the identification of CAT PR-specific changes, although at present no quantitative CAT measures exist. The Helper's Dance Checklist (Potter, 2014) provides scaffolding for building reflective discussion but is not appropriate for determining within-group change. Other methods of evaluating reflection may need to be utilised, such as ratings of aspects of reflective capacity in reflective writing (Rogers *et al.*, 2019).

This evaluation was strengthened by a mixed methods design to detect change through objective measurement, and capture participant experiences. However, the small sample size utilised in a specific training context over a short time span limits the generalisability and utility of the current study. Further, the evaluation would have been improved by asking participants specific questions regarding behavioural change, considering the purpose of using two CAT PR sessions is for trainees to have opportunities to apply the 'mapping' process to a real-world context.

Implications for the Trent Programme and DClInPsy Training

Overall findings from online survey data indicate that CAT PRs were

experienced by some trainees as a helpful addition to training and CPD already offered. While qualitative evidence suggested an increase in awareness, this was not supported by the validated measure used in the study. The addition of triangulated measurement methods such as CAT-specific qualitative and quantitative measures, and appropriately timed placement supervisor ratings of reflective capacity, may benefit future evaluations on CAT PRs. However, consideration should be given to the utility of reflection as a focused training technique, in the absence of empirical support (Mann *et al.*, 2009). Further, components of CAT PRs identified as supporting personal and professional development were not identified as CAT-specific. This supports the addition of CPD opportunities in which reflective processes are used but does not provide specific evidence or rationale for CAT PRs.

A small number of trainees identified limitations of CAT PRs, relative to timing in their clinical training, and an unclear distinction as to whether sessions should focus on professional or personal situations. It is a challenge to separate one's 'personhood' from reflective processes, and there is debate as to how understanding the self from a personal perspective in a professional role should be incorporated into professional psychology training (Norcross, 2005). From this evaluation, consideration should be given to how this distinction may be achieved in a containing way, as the difference between personal development and individual therapy may lie in the depth of examining oneself in the work (Izzard & Wheeler, 1995). One recommendation may be for clear written or oral information on CAT PRs, and contracting regarding the nature of sessions, to be provided to trainees in preparation of the process.

Timing issues for some trainees may have also impacted on how much benefit they were able to derive from CAT PRs, reflected here in RPQ scores and qualitative comments. It would be justified to offer CAT PRs and other CPD opportunities more flexibly for trainees to derive the most benefit from them as a resource. □

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