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**AN EXPLANATORY SEQUENTIAL INVESTIGATION OF THE WORKING
ALLIANCE AS A CHANGE PROCESS IN VIDEOCONFERENCING
PSYCHOTHERAPY**

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TABLE OF CONTENTS

TITLE PAGE	i
ACKNOWLEDGEMENTS.....	ii
TABLE OF CONTENTS.....	iii
ABSTRACT.....	vii
STATEMENT OF CONTRIBUTION	ix
JOURNAL PAPER.....	1
Abstract.....	1
Introduction	1
Method.....	4
<i>Setting for the study</i>	4
<i>Sample and procedure</i>	5
Phase I	5
Phase II	5
<i>VCP technology</i>	7
<i>Measures and analysis</i>	7
Measures	7
<i>Outcome Rating Scale (ORS)</i>	7
<i>Session Rating Scale (SRS)</i>	7
<i>Health Anxiety Inventory (HAI)</i>	8
Phase I analysis: MLM.....	8
<i>Model I.</i>	9
<i>Model II.</i>	10
<i>Model III.</i>	10
Phase II analysis: Thematic framework analysis	10
Results	12
<i>Phase I</i>	12
MLM results	12
Model I.....	12
Model II	13
Model III	14
<i>Phase II: Thematic framework analysis results</i>	16
Engagement with the medium	17
Connection with the therapist.....	19

Working through the medium	21
<i>Integrating phase I and phase II data</i>	24
Discussion	25
Acknowledgements	30
References	31
EXTENDED PAPER	42
Extended background	42
<i>The working alliance in face-to-face psychotherapy</i>	42
<i>Remote relationships and mental health</i>	44
<i>Methods of remote delivery</i>	47
Remote guided self-help approaches	48
Remote psychotherapies	51
<i>Working alliance in VCP</i>	51
<i>Presence</i>	54
<i>Aims</i>	57
To investigate the working alliance as a potential change process in VCP	57
To gain an experiential understanding of the working alliance in VCP from the client's perspective	58
Extended method	59
<i>Ethics</i>	59
<i>Study design and epistemology</i>	59
<i>Participants</i>	61
Phase I	61
Phase II	62
<i>Consent and recruitment</i>	64
Phase I	64
Phase II	64
<i>Interviews</i>	65
Interview procedures	66
<i>Purposeful interviews</i>	66
<i>Further interviews</i>	67
<i>Measures</i>	67
Sessional feedback	67
SRS and ORS	69
HAI	70
<i>Analysis</i>	72
Phase I: MLM	72

<i>Sample size</i>	73
<i>Group mean centring</i>	74
<i>Therapist</i>	75
Phase II: Thematic framework analysis	75
<i>Sample size</i>	76
<i>Transcription</i>	77
<i>Familiarization</i>	78
<i>Coding</i>	78
<i>Developing a working analytical framework</i>	78
<i>Applying the analytical framework</i>	80
<i>Charting</i>	80
<i>Interpreting the data</i>	80
Extended results	82
<i>Therapists</i>	82
<i>Assumption testing</i>	83
Normality	83
Linearity and homoscedasticity	84
Independence	85
<i>Cumulative effect</i>	85
<i>Thematic framework analysis quality check</i>	86
<i>Engagement with the medium</i>	87
<i>Connection with the therapist</i>	89
<i>Working through the medium</i>	91
Extended discussion	93
<i>Unique contribution</i>	93
<i>Clinical implications</i>	94
<i>Strengths and limitations</i>	96
<i>Recommendations for future research</i>	98
Reflective section	100
References	105
APPENDICES	126
Appendix I: Link to Guide for Authors	126
Appendix II: Inclusion/exclusion criteria for Morriss <i>et al.</i> (2019) RCT	127
Appendix III: HRA Approval	128
Appendix IV: Sample distribution histogram	131
Appendix V: Participant Information Sheet	132
Appendix VI: Consent form	136

Appendix VII: Interview schedule	137
Appendix VIII: Transcriber confidentiality agreement.....	139
Appendix IX: Coded extracts	140
Appendix X: Working analytical framework.....	142
Appendix XI: Indexed data extracts	144
Appendix XII: Charting spreadsheet extracts.....	145
Appendix XIII: Theme interpretation	146
Appendix XIV: Linearity and homoscedasticity scatterplots	149
POSTER	152

ABSTRACT

Background – The remote delivery of psychotherapy via secure video link— videoconferencing psychotherapy (VCP)— has the potential to overcome many of the regularly cited barriers to accessing psychological treatment and is becoming more recognised as a means of increasing access to services. Despite this, relatively little empirical investigation has been conducted examining the working alliance as a change process through this medium, and debate exists as to the experiential nature of the working alliance when therapy is delivered through this medium.

Aims – This thesis had two primary aims: (1) to investigate the working alliance as a potential change process in VCP, and (2) to gain an experiential understanding of the working alliance in VCP from the clients' perspective to investigate this phenomenon.

Method – A two-phase explanatory sequential design was used. *Phase I:* sessional data pertaining to outcome and working alliance was analysed using multilevel modelling from participants ($n = 46$) who took part in up to 15 sessions of cognitive behavioural therapy (CBT) delivered via VCP. *Phase II:* participants ($n = 12$) from phase I were recruited to undertake a semi-structured interview, with the transcripts being analysed using thematic framework analysis.

Results – *Phase I:* Three models were constructed in phase I designed to assess: (1) the concurrent relationship between outcome and working alliance, (2) the extent to which working alliance leads outcome, and (3) the extent to which outcome leads working alliance. They demonstrated: (1) a significant correlation between working alliance and outcome ($F(1, 15.19) = 25.01$, $p < .001$), with the degree of association varying significantly between individuals ($\text{Var}(u1j) = 1.06$, $p < .001$), (2) previous session working alliance significantly predicted outcome in the next session ($F(1, 355.61) = 4.47$, $p < .05$), with a significant interaction of previous session working alliance and therapist seen

($F(3, 354.1) = 4.29, p < .01$) such that one therapist demonstrated a higher positive association between previous session working alliance and next session outcome ($b = 1.06, t(0.39) = 2.79, p < .01$), and (3) previous session outcome significantly predicted next session working alliance ($F(1, 55.3) = 15.19, p < .001$) to a varying degree for individual participants ($\text{Var}(u1j) = 0.01, p < .001$).

Phase II: Three synthesised core themes were identified pertaining to *engaging with the medium*, *connection with the therapist*, and *working through the medium*. These themes suggest that most participants expressed high levels of comfort with the medium, unrelated to previous videoconferencing experience and as something separate from the therapeutic processes (*engaging with the medium*). Most participants also reported a positive connection with their therapist (*connection with the therapist*). However, when the two combine, and therapeutic processes are facilitated by the medium, very polarised views are expressed (*working through the medium*).

Discussion – Results appear to provide evidence for the working alliance sharing a reciprocal influence with outcome in VCP, with two core concepts (*engagement with the medium* and *connection with the therapist*) combining from a participants' perspective to uniquely influence therapeutic processes in VCP (*working through the medium*). These results are discussed and directions for future research recommended.

STATEMENT OF CONTRIBUTION

Project design: the project was designed by myself and refined following a research presentation to other trainees and university course staff, a presentation to the NIHR CLAHRC East Midlands team, and supervision meetings with my three research supervisors (Rachel Sabin-Farrell, Nima Moghaddam, and Sam Malins).

Applying for ethical approval: ethical approval was sought as a major amendment to an existing trial undertaken by the NIHR CLAHRC East Midlands team. Application for this amendment was done in collaboration between myself and two researchers from NIHR CLAHRC East Midlands (Sam Malins and Shireen Patel).

Writing the review of literature: this was done by myself, and adapted in light of feedback provided by Sam Malins.

Recruiting participants: participants for phase I of this thesis had already been recruited by NIHR CLAHRC East Midlands for the main trial. Participants for phase II were recruited from this participant pool by myself, and also sought from another researcher (Sam Malins).

Data collection: phase I data were already collected as part of the NIHR CLAHRC East Midlands trial. Phase II data were collected by myself, and also readily available from a second researcher conducting a separate project (Sam Malins).

Scoring questionnaires or assessments: all relevant scoring had been done by NIHR CLAHRC East Midlands prior to the data being released to me for secondary analysis.

Entering data: once given access to the data by NIHR CLAHRC East Midlands, the dataset was cleaned by myself in order to make it useable for the proposed analysis.

Data analysis: phase I data analysis was conducted by myself, under the supervision of Nima Moghaddam. Phase II data analysis was conducted by myself, with reliability checks from all three supervisors (Rachel Sabin-Farrell, Nima Moghaddam, and Sam Malins).

JOURNAL PAPER

Targeted journal is Behaviour Research and Therapy. See Appendix I for a link to the journals guide to authors.

Abstract

The remote delivery of psychotherapy via secure video link— videoconferencing psychotherapy (VCP)— can potentially overcome many regularly cited barriers to accessing psychological treatment. Despite this, debate exists as to the experiential nature, and importance, of the working alliance when therapy is delivered through this medium. This study used a two-phase explanatory sequential design to investigate the working alliance as a change process in VCP. Phase I: sessional data pertaining to outcome and working alliance were analysed using multilevel modelling from participants ($n = 46$) who took part in up to 15 sessions of VCP. Phase II: participants ($n = 12$) from phase I were recruited to semi-structured interviews, with the transcripts being analysed using thematic framework analysis. Results demonstrate: (1) a significant correlation between working alliance and outcome ($F(1, 15.19) = 25.01$, $p < .001$), (2) with previous session working alliance significantly predicted outcome in the next session ($F(1, 355.61) = 4.47$, $p < .05$), and (3) previous session outcome significantly predicted next session working alliance ($F(1, 55.3) = 15.19$, $p < .001$), with three synthesised core themes identified from interviews pertaining to *engaging with the medium*, *connection with the therapist*, and *working through the medium*. These results are discussed and directions for future research recommended.

Keywords

Working alliance, Videoconferencing psychotherapy, Change process

Highlights

- Working alliance and outcome share reciprocal influence in videoconferencing psychotherapy (VCP).

- Therapists may be able to magnify change by actively working on the alliance.
- VCP is an accepted by clients as a medium of psychotherapy delivery.
- Some clients feel face-to-face psychotherapy would offer a better experience.

Introduction

The working alliance is a pan-theoretical concept (Bordin, 1979; Horvath & Symonds, 1991), defined by Bordin (1979) as a collaboration between client and therapist across three domains: (1) goals – agreed outcomes to work towards, (2) tasks – the expectations and actions of both the client and therapist, directed towards the achievement of goals, and (3) bonds – the attachment between the therapist and client. Defined in this way, the working alliance has been extensively investigated within psychotherapy as a change process – a process by which clinical change occurs in psychotherapy (Elliott, 2010) – and found to be related to outcome across multiple meta-analyses (Flückiger, Del Re, Wampold, & Horvath, 2018; Horvath, Del Re, Fluckiger, & Symonds, 2011; Horvath & Symonds, 1991; Martin, Garske, & Davis, 2000).¹

The majority of this research, however, has been conducted within traditional face-to-face psychotherapy, with less attention paid to alternative delivery methods – the exception being the meta-analysis conducted Flückiger *et al.* (2018), which did separately analyse remote treatments and found a moderate association between alliance and outcome. However, these results must be interpreted with caution due to the grouping of several intervention mediums – internet, e-mail, videoconferencing, and phone – which logic dictates would each uniquely impact the working alliance.

The use of technology as a means of meeting clinical need is growing in popularity and attracting increased empirical interest (Hollis *et al.*, 2015) – it is also currently recommended by UK government (HM Government, 2011), with the National Health Service (NHS) advocating for video consultations to be part of a standard menu of care in all GP practices within the next five years (NHS, 2019). Remotely delivered psychotherapy potentially has many advantages over face-to-face therapy, not least that it seemingly overcomes several regularly cited barriers to treatment, such as the need for transport (Harvey & Gumport, 2015) and perceived stigma (Clement *et al.*, 2015; Bischoff, Hollist, Smith, & Flack, 2004; Sirey *et al.*, 2001). Indeed, 98% of internet users are

¹ see Extended Background *The working alliance in face-to-face psychotherapy* for brief synopsis of research in this area

consumers of at least one form of social media (Global Web Index, 2017), so the notion of connecting with people remotely is nothing new.²

One such example of remotely delivered psychotherapy is videoconferencing psychotherapy (VCP)³ – the delivery of psychotherapy via secure video link. This method of delivery has been shown to be effective for symptom reduction across numerous difficulties – panic disorder (Bouchard *et al.*, 2004), post-traumatic stress disorder (Germain, Marchand, Bouchard, Drouin, & Guay, 2009; Morland *et al.*, 2015), obsessive-compulsive disorder (Himle *et al.*, 2006), insomnia and depression (Lichstein *et al.*, 2013), social anxiety (Yuen *et al.*, 2013), and eating disorders (Mitchell *et al.*, 2008) – and has shown non-inferiority of outcome compared to face-to-face delivery in a recently conducted meta-analysis (Norwood, Moghaddam, Malins, Sabin-Farrell, 2018).

Despite the positives of delivering interventions via VCP, some debate still exists around the working alliance when therapy is delivered through this medium. Indeed, it has been pointed out that ‘conventional wisdom’ would suggest a better working alliance could be facilitated face-to-face (Bee *et al.*, 2008), which is perhaps felt to be the case due to a reduced interpersonal richness of communication in VCP. Further to this, psychologists have been found to be reluctant to endorse VCP as a standalone treatment (Mora, Nevid, & Chaplin, 2008) and have also rated sessions delivered by VCP lower for working alliance than those delivered face-to-face, despite the actual sessions being identical in nature (Rees & Stone, 2005). An overall trend of therapists rating early VCP sessions lower for working alliance compared to clients is also seen (Simpson & Reid, 2014).

Despite the concerns noted above, from a clients’ perspective VCP has high acceptability (Frueh, Henderson, Myrick, 2005; Simpson, Bell, Knox, & Mitchell, 2005), and comparable working alliance in VCP has been found across multiple studies when compared to face-to-face treatments; some in non-randomised controlled trials (Bouchard *et al.*, 2004; Germain, Marchand, Bouchard, Guay, & Drouin, 2010), and some in randomised controlled trials (RCT; Ertelt *et al.*, 2010; Stefan & David, 2013; Stubbings, Rees, Roberts, & Kane, 2013).

² see Extended Background *Remote relationships and mental health* for brief synopsis of the role of remote relationships in mental health

³ see Extended Background *Methods of remote delivery* for synopsis of other delivery methods

However, all these trials lack external validity, in that the VCP condition in all of them was conducted in a clinical building. Whilst this is obviously desirable for research in terms of controlling as many variables as possible, it makes it difficult to conclude anything convincing in terms of clinical benefit of VCP as many of the perceived benefits are lost.⁴

The apparent disparity between client and clinician views of VCP can perhaps be explained by the concept of *presence*. It has been proposed that positive beliefs about VCP combined with a *presence* in the therapy – the subjective experience of being in one place even when not physically situated there – facilitate a strong working alliance (Bouchard *et al.*, 2000).⁵ Indeed, in a study which empirically investigated the phenomenon of *presence*, it was reported that 20% of the variance in therapeutic bond could be accounted for by client reported *presence* (Bouchard, Robillard, Marchand, Renaud, & Riva, 2007).

This may explain the results found by Rees and Stone (2005), as psychologists were observers in this study, and therefore less likely to become immersed in the experience. It could also be argued that therapists in general would be less likely to experience *presence* in VCP as it has been reasoned that to fully experience the phenomenon, the interaction needs to feel unmediated (Lee, 2004). Whilst this may be possible for a client (who would be expected to talk to a screen in VCP in much the same way they would talk to a person face-to-face), it would likely not be for a therapist (who would have to interact with the medium directly to do things such as display resources, which would give sporadic reminders of the medium being used).

Although *presence* seemingly fits as an explanation for the disparity of views between clinicians and clients, it is impossible to draw firm conclusions due to the lack of empirical research in this area of VCP. It is perhaps just as likely that the disparity could be explained by another factor such as an equalising of any perceived power imbalance (as both client and clinician are masters in their own domain, though this explanation is somewhat compromised by lack of external validity in VCP trials) or an increased sense of control felt by the client (as it is perhaps easier to turn off a computer if they feel they would not like to continue than it is to walk out of a building). It therefore seems important to initially focus

⁴See Extended Background *Working alliance in VCP* for more information

⁵See Extended Background *Presence* for more information

on the clients' experience of VCP, to gain a better understanding of the potential influences on the working alliance.

As it is known that the working alliance is important and linked to outcome in face-to-face psychotherapy, more is needed to be known with regards to the phenomenon in the growing delivery medium of VCP. From the evidence presented it appears that forming a successful working alliance in VCP is possible, though the nuances and processes of this alliance remain unclear, as does its predictive validity for outcome in VCP. The present study reports secondary data analysis from a wider trial (Morriss *et al.*, 2019) using cognitive behaviour therapy (CBT) delivered via VCP to treat individuals with health anxiety. The VCP was delivered wherever the participant chose to access it, and no further stipulations were placed on this. By overcoming the commonly encountered limitation of a lack of external validity, the present study had two primary aims: (1) to investigate the working alliance as a potential change process in VCP, and (2) to gain an experiential understanding of the working alliance in VCP from the clients' perspective.⁶

Method

Setting for the study

An RCT has recently been conducted by the National Institute of Health Research (NIHR) Collaboration Leadership in Applied Health Research and Care (CLAHRC) East Midlands (Morriss *et al.*, 2019). This was a two-arm, intention to treat, multicentre trial investigating the clinical outcomes and cost-effectiveness of a remotely-delivered CBT intervention versus treatment as usual (TAU) for health anxiety. Participants within the trial were randomly allocated to one of two arms: (1) remote CBT intervention, wherein participants received up to 15 sessions of CBT delivered remotely (by either telephone or VCP) from one of four therapists; or (2) TAU, wherein participants were offered no intervention from the trial but were free to seek help as they saw fit. This study reports a secondary data analysis for data from participants who received VCP. Ethics approval was granted through the Health Research Authority.⁷

⁶see Extended Background *Aims* for more detail

⁷see Extended Background *Ethics* for details of ethical approval for the current study

Sample and procedure

An explanatory sequential design was used (Fetters, Curry, & Creswell, 2013), wherein the quantitative aspect of the study precedes the qualitative, such that the initial quantitative analysis informs both the collection and analysis of qualitative data. This offers a more in-depth explanation of the statistical results by comprehensive exploration of participant experiences through qualitative analysis. This type of design can give a richer insight in to the subject area, and lead to a more inclusive understanding of the investigated phenomena (Bishop, 2015).⁸ In-line with this research design, the study took place in two phases.

Phase I

As part of the NIHR CLAHRC East Midlands RCT (Morriss *et al.*, 2019) sessional data were collected from participants with regards to how they were feeling in relation to different areas of life-functioning (outcome rating scale [ORS]; Miller, Duncan, Brown, Sparks, & Claud, 2003) and their perceptions of the working alliance (session rating scale [SRS]; Duncan *et al.*, 2003). These data were secondarily analysed using multilevel modelling (MLM; see *measures and analysis* for further details) for all participants who received VCP ($N = 46$; median age = 27, range = 19-66; 37 female). See Appendix II for inclusion/exclusion criteria of the Morriss *et al.* (2019) study.

Phase II

For phase II, participants were initially identified using extreme case sampling (Palinkas *et al.*, 2016), such that those who had the greatest and least improvement in scores on the Health Anxiety Inventory (HAI; Salkovskis, Rimes, Warwick, & Clark, 2002) at three-month follow-up were targeted for recruitment. This was to ensure views of participants who had a seemingly positive and negative experience of therapy were heard. Where three-month follow-up data were unavailable, six-month follow-up data were used. Top- and bottom-ranking participants were recruited at a 1:1 ratio, until an adequate number of participants had been obtained.

⁸see Extended Method *Study design and epistemology* for more details

Four participants (all female; median age = 23.5, range = 21-32) were initially recruited for interview, with the interviews being analysed using thematic framework analysis (Ritchie & Spencer, 1994; Gale, Heath, Cameron, Rashid, & Redwood, 2013; see *measure and analysis* for more detail). This framework was then deductively applied to interviews conducted with a further eight participants (all female, median age = 34.5, range = 20-50). These further interviews were conducted as part of separate but related research project (Malins *et al.*, 2019).

Within the 12 interviews used in the present study, all four therapists were represented. See Table 1 for comparison of therapist representation in phase I and phase II data.⁹

Table 1
Therapist representation within data

	Participants	
	Phase I	Phase II
Therapist one, n (%)	29 (63.04%)	8 (66.67%)
Therapist two, n (%)	9 (19.57%)	1 (8.33%)
Therapist three, n (%)	4 (8.69%)	2 (16.67%)
Therapist four, n (%)	4 (8.69%)	1 (8.33%)

Participants were deemed eligible to take part in the interview if they: (1) had attended at least two sessions of treatment and completed the appropriate outcome measures, and (2) were able to give informed consent. They were deemed not suitable to take part if they: (1) were currently receiving therapeutic support, or (2) had sought any therapeutic support above and beyond that offered whilst taking part in the RCT since its completion, as both these may interfere with participant recall of the VCP.

All participants approached for interview were offered the option of having a VCP session recording sent to them via secure email. This was offered as memory aid, since several months (up to a maximum of 13 months) had passed

⁹ see Extended Method *Participants* for more information regarding the sample

between the VCP completion and interview. Interview recompense was offered in the form of a £10 gift voucher.¹⁰⁻¹¹

VCP technology

Participants in the present study had VCP delivered using *Cisco WebEx* software. This software allowed the secure video conversation between therapist and client – with a smart feature which automatically shows the video feed of whoever is speaking. The sharing and editing of live documents were also facilitated using this software.

Measures and analysis

Measures

Outcome Rating Scale (ORS)

The ORS is a four-item measure designed to assess areas of functioning known to change with therapeutic intervention (individual, relational, and social; Miller *et al.*, 2003). These dimensions of functioning are measured using four visual analogue scales, each a 10cm line, with the score for each item being how far along the line is marked (in centimetres) – meaning an overall score range from 0 to 40, with higher scores indicating greater functioning.

The ORS has been found to have good reliability, with a Cronbach's alpha ranging from .87 to .96 (Miller *et al.*, 2003; Campbell & Hemsley, 2009). Concurrent validity of the ORS has been measured against numerous outcome measures, and moderate-to-strong correlations have been found (see Miller *et al.*, 2003, and Campbell & Hemsley, 2009 for review). Within the present study, the ORS was completed by participants in each session of VCP.

Session Rating Scale (SRS)

The SRS (Duncan *et al.*, 2003) is a four-item measure designed to assess the key dimensions of an effective working alliance. The four items are consistent with Bordin's (1979) definition of working alliance and pertain to the bond

¹⁰see Extended Method *Consent and recruitment* for further details regarding recruitment

¹¹see Extended Method *Interviews* for further information regarding the interviews conducted

between client and clinician, relevance of the goals, approach/methods used, and the overall alliance. These dimensions of working alliance are measured and scored in the same way as the ORS.

The SRS has been found to have good reliability, with a Cronbach's alpha ranging from 0.88 to 0.93 being reported (Duncan *et al.*, 2003; Campbell & Hemsley, 2009). Concurrent validity of the SRS has been demonstrated by moderate correlations with both the Working Alliance Inventory (Horvath & Greenberg, 1989; reported by Campbell & Hemsley, 2009) and the Helping Alliance Questionnaire II (Luborsky *et al.*, 1996; reported by Duncan *et al.*, 2003). Within the present study, the SRS was completed by participants in each session of VCP.¹²

Health Anxiety Inventory (HAI)

The HAI (Salkovskis *et al.*, 2002) is an 18-item, self-report questionnaire. Each item is scored on a Likert scale ranging from 0 to 3, with a higher score being more indicative of health anxiety. The scale has been found to be able to discriminate between health anxiety and other anxiety disorders (Salkovskis *et al.*, 2002). It has good reliability (Cronbach's alpha of .89; Salkovskis *et al.*, 2002). Concurrent validity has been demonstrated by a .85 correlation with clinical judgement (Salkovskis *et al.*, 2002). In the current study, HAI score was used as a basis for identifying interview participants as outlined in *sample and procedure*.¹³

Phase I analysis: MLM

Quantitative data were secondarily analysed using MLM. MLM is a method of quantitative analysis which enables change to be measured both within-person (level 1) and between-person (level 2; Tasca & Gallop, 2009). This was appropriate for the present study given the way the data were structured, with individual participants (level 2) having numerous different outcome measures nested within them over time (level 1). By analysing variables from different levels at the same time, MLM allows identification of the true source of variance in the dependent variable at different levels (Nissen-Lie, Monsen & Ronnestad,

¹²See Extended Method Measures for more information regarding *sessional feedback* and the *SRS and ORS*.

¹³See Extended Method Measures: *HAI* for more information regarding the HAI.

2010). It is acknowledged that a third level exists in the data (therapist), though due to the low number of therapists this was not able to be included as a separate level in the analysis. To adequately represent the data, therapists have been added at the individual level of the data (see below). However, the intraclass correlation coefficient (ICC) between therapists and both the SRS and ORS was also calculated to provide an estimate of therapist influence.

Given the unequal number of data points between therapists (due to diverse caseloads) ICCs were calculated by running unconditional models for both outcomes (ORS and SRS) with therapist as a grouping factor. The covariance parameter estimates were then used to compute the ICC by dividing the between-groups estimate by the total estimate:

$$ICC = \frac{\text{between group covariance parameter estimates}}{\text{between group covariance parameter estimates} + \text{within group covariance parameter estimates/residuals}}$$

In total, three models were constructed to elucidate the presence and temporal direction of any working alliance-outcome relationships in VCP. All models were created in *IBM SPSS Statistics 24* using a first-order autoregressive covariance structure.

Effect size for each of the models created was calculated using a pseudo- R^2 , a method which estimates the contribution of predictors and random effects in MLM by assessing the change in model deviance and the reduction in unexplained variance at each level (Town, Hardy, McCullough, & Stride, 2012). In essence, the effect size for each stage of the model (each predictor and random effect added) was calculated as:

$$Pseudo R^2 = 1 - \frac{\text{target model residual variance}}{\text{unconditional model residual variance}}$$

Model 1.

To examine the concurrent relationship between outcome and working alliance, ORS and SRS scores were group mean centred – taking each participants' sessional score and subtracting it from their mean score on that measure (for ease of writing, within the remainder of the method and results section SRS and

ORS will be shorthand for the group mean centred SRS and group mean centred ORS, respectively). This removed between participant variation from the model, allowing more accurate investigation of level 1 associations (Enders & Tofighi, 2007) – in this case the association between outcome and working alliance within individual participants.

Model II.

To examine to what extent working alliance was leading outcome, model II used the ORS score for each session as the dependent variable with client reported working alliance from the session immediately prior (SRS-1) as a predictor variable. Therapist seen was also added as a level 2 predictor variable within this model.

Model III.

Model three was designed to examine to what extent outcome was leading working alliance. This model used the SRS as the dependent variable, with client reported outcome rating from the session immediately prior (ORS-1) as the predictor. Therapist seen was also added as a level 2 predictor variable.¹⁴

Phase II analysis: Thematic framework analysis

Thematic framework analysis fits broadly into the thematic analysis family, in that its goal is to focus on interpreting relationships within a set of data to draw conclusions clustered around themes (Gale *et al.*, 2013). As with other thematic analyses, the method is epistemologically flexible (Braun & Clarke, 2006) and its methodological processes (including techniques such as charting) make the method seem more closely aligned to quantitative analysis than other qualitative methods (Pope & Mays, 2009), which can make thematic framework analysis seems more desirable for mixed methods research.

The thematic framework analysis was conducted using an adapted seven-step procedure outlined by Gale *et al.* (2013; with this seven step procedure being adapted from Ritchie & Spencer, 1994): (1) transcription, (2) familiarisation,

¹⁴See Extended Method Analysis; Phase I: MLM for more information regarding MLM

Table 2

Thematic framework analysis

Transcription	All interviews conducted were transcribed verbatim and transcripts checked against recording for accuracy.
Familiarisation	The four purposeful interviews were listened back to, read, and re-read to build familiarity.
Coding	The four purposeful interview transcripts were inductively coded by the first author.
Developing a working analytical framework	All codes from the previous step were looked at together, with an initial coding framework being created from them. This initial coding framework was then applied to each of the four transcripts in turn – with adaptations and refinements being made as required. This process was repeated until the framework could successfully be applied to all four transcripts without further refinement. This framework was then applied to a randomly selected purposeful transcript by two authors (RSF & NM) to check interrater reliability and refined once more.
Applying the analytical framework	The framework was systematically applied to the remaining eight transcripts by the first author, with a randomly selected transcript being checked by two authors (RSF & NM) for accuracy.
Charting	A separate matrix for each category within the coding framework was created in <i>Microsoft Excel</i> . Each matrix comprised one row per participant and one column per code. This resulted in a brief description of each code as it pertains to the individual participant, with reference to supporting quotes.
Interpreting the data	Charted data were reviewed in light of the original study aims, quantitative results from phase I, and relevant existing theory to create synthesised themes relevant to studies aims.

(3) coding, (4) developing a working analytical framework, (5) applying the analytical framework, (6) charting, and (7) interpreting the data (see Table 2 for further explanation of each step). Saliency analysis (Buetow, 2010) was also used to structure the thematic framework analysis, with a classification given to each code generated (highly important and recurrent, highly important but not recurrent, not highly important but recurrent, or not highly important and not recurrent). Only codes deemed to be either highly important (as deemed by their relationship to the study aims as assessed by the first author) and recurrent, or highly important but not recurrent were used in the framework.¹⁵

¹⁵See Extended Method Analysis; Phase II: Thematic framework analysis for more information on the thematic framework analysis

Results

Phase I

ICCs between therapists on both outcome measures (ORS and SRS) were calculated to estimate therapists influence on outcome. ICC(1) for the ORS was 0.175, meaning up to 17.5% of the variance in ORS scores is attributable to between-therapist difference. For the SRS, the amount of variance accounted for by the model was too low for the model to converge, indicated a likely negligible variance in SRS score attributable to between-therapist difference. High ICC scores would indicate much of the variance between outcome scores can be explained by therapist seen and undermine the models created (as difference seen in the models could be accounted for by individual therapist difference). The relatively low ICC score obtained indicates this is not the case.¹⁶

MLM results¹⁷

Model I

An initial model was built to compare the concurrent association between client ratings of working alliance (SRS) and client ratings of therapy outcomes (ORS). Initially a fixed-effects model was built, which found a significant correlation between client reported scores on the ORS and SRS, $F(1, 392.99) = 27.81$, $p < .001$. A pseudo- R^2 of 0.1 for the fixed effect model indicated that SRS score explained 10% of the variance in ORS score.

Random-effects of slope were introduced and a significant correlation remained, $F(1, 15.19) = 25.01$, $p < .001$. The relationship between ORS and SRS showed significant variance in slopes across participants, indicating the degree of association between outcome and working alliance varied between individuals. Allowing this variation increased the pseudo- R^2 to 0.17. Adding further random-effects resulted in non-convergence of the model. See Table 3 for a summary of this model.

¹⁶See Extended Results *Therapists* for examination of client difference between therapists

¹⁷See Extended Results *Assumption testing* for test of statistical assumptions for each model.

Table 3
Parameter estimates for model I

	Estimate	SE	95% CI
Base model			
<i>Fixed effects</i>			
Intercept	0.07	0.38	-0.69, 0.83
SRS	0.89***	0.17	0.56, 1.22
Final model			
<i>Fixed effects</i>			
Intercept	0.08	0.35	-0.62, 0.79
SRS	1.47***	0.29	0.84, 2.09
<i>Variance components</i>			
Slope	1.06***	0.75	0.27, 4.23

Note. SE = Standard Error, 95% CI = 95% Confidence intervals.

*** $p < .001$

Model II¹⁸

In an attempt to discover whether outcome was being led by working alliance, or working alliance was being led by outcome, two further models were specified. Model II used client reported outcome rating (ORS) as the dependent variable with client reported working alliance from the session immediately prior (SRS-1) and therapist seen added as predictors.

Table 4
Parameter estimates for Model II

	Estimate	SE	95% CI
Base model			
<i>Fixed effects</i>			
Intercept	0.85*	0.36	0.14, 1.57
SRS-1	0.58***	0.16	0.26, 0.9
Final model			
<i>Fixed effects</i>			
Intercept	0.44	1.17	-1.88, 2.77
SRS-1	0.26	0.27	-0.28, 0.8
Therapist 1	0.49	1.25	-2, 2.97
Therapist 2	0.36	1.4	-2.42, 3.15
Therapist 3	0.51	1.54	-2.54, 3.56
Therapist 1*SRS-1	1.06**	0.38	0.31, 1.81
Therapist 2*SRS-1	0.08	0.45	-0.81, 0.97
Therapist 3*SRS-1	-0.62	0.59	-1.77, 0.54

Note. SE = Standard Error, 95% CI = 95% Confidence intervals. Therapist four is not presented in this table as due to the low number of outcome measures completed by participants seeing this therapist an accurate prediction as to their impact on the model cannot be made.

* $p < .05$

** $p < .01$

*** $p < .001$

¹⁸See Extended Results *Cumulative effect* for alternative model testing the cumulative effect of sessional outcomes.

For model II, a fixed-effects base model was constructed with the ORS as the dependent variable and SRS-1 as the predictor. This model found a significant correlation between ORS and SRS-1, $F(1, 357.69) = 12.64, p < .001$. Pseudo- R^2 for this model was 0.06 (indicating previous session SRS score explained 6% of the variance in next session ORS).

Therapist seen was then added in as a level 2 predictor variable, along with an interaction effect of therapist seen with SRS-1 – this increased the pseudo- R^2 to 0.1, indicating that previous session SRS and therapist seen explain 10% of the variance in next session ORS. See Table 4 for summary of this model.

It was found that SRS-1 significantly predicted outcome ratings in the next session, $F(1, 355.61) = 4.47, p < .05$, but therapist seen did not, $F(3, 101.66) = 0.06, p = .98$. A significant interaction of SRS-1 and therapist was also seen, $F(3, 354.1) = 4.29, p < .01$. When examining this interaction by looking at the individual therapists, a significant positive relationship between one therapist and SRS-1 was seen. The interaction effect therefore reflects a difference in slopes for previous session working alliance as a predictor of current sessions outcome based on the therapist seen, such that one therapist displayed a positive slope, meaning a higher positive association between previous session working alliance and current sessions outcome. Adding random-effects to this model resulted in model non-convergence.

Model III¹⁸

Model III used client reported working alliance (SRS) as the dependent variable, with client reported outcome rating from the session immediately prior (ORS-1) and therapist seen as predictors.

For model III, a fixed-effects base model was constructed with the SRS as the dependent variable and ORS-1 as the predictor. This model found a significant correlation between SRS and ORS-1, $F(1, 331.17) = 22.7, p < .001$, with a pseudo- R^2 of 0.12 (12% variance in current session SRS explained by previous session ORS).

Again, therapist seen was added as a level 2 predictor variable, along with an

¹⁸See Extended Results *Cumulative effect* for alternative model testing the cumulative effect of sessional outcomes.

interaction effect of therapist seen with ORS-1. It was found that ORS-1 significantly predicted SRS, $F(1, 55.3) = 15.19, p < .001$, whereas the therapist seen came close to having statistically significant impact on the SRS but did not quite reach significance, $F(3, 85.78) = 2.7, p = .051$. No significant interaction of ORS-1 and therapist was seen, $F(3, 47.9) = 1.19, p = .32$, suggesting that the association between previous session outcome and current session working alliance was not impacted by the therapist the participant was seeing. The introduction of therapist to the model increased the pseudo- R^2 to 0.14.

Table 5
Parameter estimates for Model III

	Coefficient	SE	95% CI
Base model			
<i>Fixed effects</i>			
Intercept	0.14	0.09	-0.05, 0.33
ORS-1	0.06***	0.01	0.04, 0.09
Final model			
<i>Fixed effects</i>			
Intercept	0.85	0.25	0.35, 1.35
ORS-1	0.21**	0.08	0.06, 0.36
Therapist 1	-0.72	0.27	-1.25, -0.19
Therapist 2	-0.68	0.3	-1.27, -0.09
Therapist 3	-0.83	0.32	-1.46, -0.19
Therapist 1*SRS-1	-0.15	0.08	-0.31, 0.01
Therapist 2*SRS-1	-0.14	0.09	-0.32, 0.03
Therapist 3*SRS-1	-0.12	0.1	-0.31, 0.08
<i>Variance components</i>			
Slope	0.01***	0.003 ¹	0.005 ² , 0.02

Note. SE = Standard Error, 95% CI = 95% Confidence intervals. Therapist four is not presented in this table as due to the low number of outcome measures completed by participants seeing this therapist an accurate prediction as to their impact on the model cannot be made.

¹SE shown to three decimal places so as not to show zero

²95% CI shown to three decimal places so as not to show zero

** $p < .01$

*** $p < .001$

Random-effects of slope for ORS-1 were also introduced. SRS and ORS-1 showed significant variance in slopes across participants, indicating the level of association between previous session outcome and current session working alliance varied between participants – this further increased the pseudo- R^2 (0.32) indicating that when factoring in individual variation of previous session outcome and therapist, 32% of the variance in next session working alliance is

accounted for. Adding further random-effects resulted in non-convergence of the model. See Table 5 for a summary of the model.

Phase II: Thematic framework analysis results¹⁹

Three synthesised core themes are briefly described in Table 6, before being discussed in more detail below.

Table 6

Synthesised core themes developed from the coding framework

Coding framework		Synthesised core theme
Initial category	Initial code	
Technology	Problems	<i>Engagement with the medium</i> Participants mostly expressed high levels of comfort with the medium, yet exceptions to this were noted. This seemed unrelated to previous videoconferencing experience and was something separate from the therapeutic processes.
	Expectations & familiarity	
	Experience	
VCP experience	Freedom	Levels of engagement with the medium were high but seemed largely unrelated to the therapist.
	Comfort	
	Engagement	
	Beliefs and expectations	
Convenience		
Perceived control	Self-presentation	
	Environment	
Therapist characteristics	Demographics	<i>Connection with the therapist</i> Most participants reported a positive connection with their therapist. This connection seemed to be influenced by the perceived skill and professionalism of the therapist, participant characteristics, and interpersonal factors. The relationship being experienced as reciprocal seemed to be of particular importance.
	Interpersonal skills	
	Credentials, experience, skills, and professionalism	
Interpersonal factors	Open and honest	
	Shared understanding	
	Expectations & importance	
	Reciprocity & equity	
Personal factors		
Previous therapy	Experience	
	Relationship	
Physical cues	Eye contact, facial cues and tone of voice	<i>Working through the medium</i> Participants were largely aware of the medium, which had a varying impact on their therapy experience – some people liking the feeling it created, and others feeling they were in some way missing out on a better experience. Polarised views were put forward regarding the medium's impact on the participant's relationship with their therapist.
	Absence of the body	
	Readability	
Speed of processes		
Distance / closeness	Physical	This seemed unrelated to the participant's actual comfort with the medium in general terms (as discussed in synthesised core theme <i>Engagement with the medium</i>) or how they felt about their therapist (as discussed in synthesised core theme <i>Connection with the therapist</i>), but was more to do with the mediating impact of videoconferencing on therapeutic processes.
	Interpersonal	

Note. The code *Therapy outcome* was included in the initial framework but was excluded from the interpretation as it was noted to be unrelated to the present studies aims – describing the outcome of therapy from the client's perspective in terms of changes made, but with no link to either the medium or the therapist.

¹⁹See Extended Results *Thematic framework analysis quality check* for quality appraisal tool applied to the thematic framework analysis.

*Engagement with the medium*²⁰

This theme pertains to how well participants were able to engage with the medium as a piece of technology, rather than a therapeutic entity. Almost half (5/12) of the participants had prior experience of using videoconferencing, which set up different expectations of the process, with some feeling that videoconferencing was a 'normal interaction' (Participant four), yet others feeling it may make conversation awkward and forced due to a perceived need to avoid long pauses (Participant three).

Despite these varying expectations, most participants (10/12) reported high levels of engagement with the medium and the unique techniques it enabled, such as the ability to bring up and edit live documents (Participant one). Indeed, half the participants (6/12) explicitly expressed high levels of comfort with the medium, with reasons such as an increased sense of confidentiality (Participant two) and therapy being accessed 'more on my terms' (Participant one) being cited as reasons for comfort. It also seems important to note that one of the participants who had negative expectations through previous videoconferencing experience still expressed comfort with interactions due to feeling less likely to upset the therapist:

'...I'm sure there's a lot of training that means they don't get too emotional about things but I'd imagine when you hear some stuff it does play on your mind a little bit like if you're worried for your patients...and I think when you're seeing them face to face, I mean, I worried about that a bit more than with someone who'd never actually met me.' (Participant three).

Adding to the sense of comfort felt by participants was the freedom afforded by VCP. One third of participants (4/12) commented on VCP being more convenient for them in terms of time, travel, and financial constraints, with one participant feeling it was the only way they could have accessed support due to feeling unable to leave the house at the time:

²⁰See Extended Results *Engagement with the medium* for further information and supportive quotes regarding this theme

'I think my anxiety levels were completely past a reasonable level, you know, I think they – I couldn't go out, you know, I really struggled even going out into the back garden because I was so anxious... but the sessions with [the therapist], you know, they were just – I accessed them at the right time...'. (Participant 11).

Environmental freedom and being able to access support in the home was positively commented on by half (6/12) the participants. However, a quarter of participants (3/12) also acknowledged some unique difficulties in accessing support in this way, such as being overheard by housemates or sharing more of yourself than you intended:

'Whenever I video conferenced in my bedroom [the therapist] could see that I'm still definitely very obsessive about being tidy... I was always conscious that it was there but I don't think she was really looking at the background.' (Participant three).

As well as environmental comfort and freedom, a quarter (3/12) of participants commented on freedom of self-presentation, with seemingly more freedom and comfort credited to receiving support through videoconference as opposed to face-to-face:

'There's that safety you can do whatever you want in your house sort of thing...it just didn't really matter if it was like a purple t-shirt and a bright purple skirt or pink skirt, right, [Laughs] it could clash because it didn't matter.' (Participant two).

It is also important to note that the feeling of comfort was not universal, with two participants expressing discomfort using the medium. Despite the expressed discomfort, both 'stuck it out' (Participant 10) and were able to have a positive experience overall:

'I mean I'm not great at talking to people over video but [laughs]... I think it worked really well. I mean at first I was quite anxious about it, but you get used to it pretty quickly.' (Participant 12).

Connection with the therapist²¹

The connection participants' felt with the therapist seemed largely positive, with factors influencing this connection being unrelated to the medium of delivery. Perhaps unsurprisingly, most participants (9/12) talked about experiencing the relationship they had with their therapist as important to their therapeutic experience. Broadly, the experience of the connection between therapist and participant seemed to be impacted by three constructs: the perceived skill and professionalism of the therapist, participant characteristics, and interpersonal factors.

The perceived skill and professionalism of the therapist was mentioned by most participants (10/12) as an important factor in forging a meaningful connection. It was acknowledged that having the professional acumen to allow participants time to discuss what they wished to talk about, even if this seemed unrelated to agenda, was important. Therapists were then perceived to show skill and professionalism in guiding the participants back to topic, without them feeling too forced to stick rigidly to an agenda, or as if they had not been listened to:

'So about the last 20 minutes of the session focused on my anxiety and I did notice that he brought me back to that because I was tending to go off on a tangent and starting to, so it was good it refocused me... I felt more accepted to this because we talked about my diet and cholesterol and got it out of my system a little so I felt able to sort of deal with something positive to help me with the whole situation rather than just focus on that one aspect of how I felt.' (Participant nine).

As if to demonstrate the importance of the above point, one participant did feel as though agendas were too rigidly followed and this hindered any connection they had with their therapist:

'...he just wanted me to talk about certain things and I actually just wanted him to talk... but clearly he had a schedule for a session and he was trying to stick rigidly, it felt like, to his schedule and

²¹See Extended Results *Connection with the therapist* for further information and supportive quotes regarding this theme

listening to it again I think he is almost out of his depth at a couple of points but that was probably just because he's got this structure to the session that he was trying to coax me into.' (Participant 10).

There was an acknowledgement from three quarters of participants (9/12) that their own personal circumstances impacted the connection they were able to build. This had both a positive and negative impact on the connection, with one person acknowledging that a personal bereavement during therapy hindered their ability to engage (Participant 12), yet another stating they have a characteristic which makes it easy for them to talk to people and experience new things (Participant two).

With regards to the interaction between participant and therapist, being open and honest was mentioned by most participants (10/12) as facilitating a close connection. However, difference was noted as to how an open and honest relationship was achieved. For most (7/12), having a relationship which felt reciprocal was important for creating an environment in which the participant's felt able to be open and honest:

'You know there's like a kind of difference, you actually got more out of it because one, if something wasn't working then you could talk about it, figure out why it wasn't working or try something else and it also didn't feel like someone was dictating to you how you should be fixing your problem.' (Participant two).

However, one participant made mention of how a 'professional distance' (Participant three) facilitated honesty, as the participant perceived that by having a relationship which felt overly familiar they would feel unable to completely open-up for fear of damaging the relationship.

Also key to building a successful relationship with the therapist seemed to be the idea of developing a shared understanding (10/12). How this was achieved varied, with a more practical conceptualisation of shared understanding being reported by some – including the use of shared action plans developed in sessions (Participant eight), the use of a shared language (Participant one), and

²²See Extended Results *Working through the medium* for further information and supportive quotes regarding this theme

a mutually developed relapse management plan (Participant four). Other participants had a more abstract idea of how a shared understanding was experienced, with one participant simply stating *'he sort of explained and listened and I felt understood'* (Participant nine).

Given the seemingly important nature of a shared understanding, it is not surprising that when a shared understanding cannot be developed, connection with the therapist seems to be hindered:

'... he didn't seem to understand how I was feeling and listening to the recording I got irritated again because I can hear him trying to push me in certain directions and I just couldn't do it.' (Participant 10).

Working through the medium²²

This theme pertains to how participants experienced therapeutic processes (including the relationship) as something mediated through videoconferencing. Although previous themes have largely illustrated a positive engagement with the medium and a positive connection with the therapist, something unique happens when the two are combined in that participants largely appear to have polarised views as to the overall feel of the experience.

Despite most participants experiencing the relationship they had with their therapist as important (see *Connection with therapist* theme above) a third of people (4/12) commented negatively about the physical distance between themselves and their therapist. Inherent in this seems an acknowledgement that although the relationship with the therapist may have been perceived as good, they are missing out on something potentially better:

"When you are with someone through the screen...it makes you feel different. Just to break the glass, to say like that maybe...I mean maybe it's something cultural but for example when I feel very bad I always like to hug the person or to feel the hands of a

²²See Extended Results *Working through the medium* for further information and supportive quotes regarding this theme

person, to feel that I am receiving some support.' (Participant eight).

It is also important to note that not all participants found the physical distance a problem. One participant commented on this in positive terms and felt it was facilitative of conversation in such a way that the participant was empowered due to not physically sharing a space with the therapist:

'But they weren't really in it... Right, so like you still had your private bubble and they're opening a window into your private bubble but no one's ever actually in your private bubble.'
(Participant two).

Conversely, the interpersonal distance (a lack of connection between therapist and participant) that participants experienced towards their therapists does not seem to correlate with a felt physical distance. One third (4/12) of participants commented on a felt interpersonal distance that was contributed to by the medium. However, none of these participants commented on this in negative terms, with two feeling it helped facilitate the therapy:

'...as I said before, it was that little bit more distant but then at the same time like, things didn't feel rushed and stuff like that... we did settle into it a lot quicker as well, like getting to the actual discussion a lot quicker than it has been when I've done it face to face... I mean, I guess with it being that more distant there was less small talk...' (Participant three).

Whereas the other two mentioned it in very neutral terms – acknowledging it was there, but not seemingly bothered by it in such a way that influenced the VCP experience:

'... you just feel like it is you and just the other person just talking, so I didn't feel that, you know, It hindered our conversations even though I initially thought it would, does that make sense, that it actually did work.' (Participant four).

This makes interesting reading as it seemingly contradicts the fact that some participants felt they were missing out on better experience by being physically distant from their therapist. This is particularly the case for Participant seven, who expressed both viewpoints (that the physical distance was a hindrance, but the interpersonal distance was a benefit).

There was also an acknowledgement from participants that the speed of certain processes were impacted by the medium. Again, a split in opinion is noted. A third (4/12) of participants felt that VCP facilitated quicker engagement, with reasons such as feeling more relaxed in their own environment (Participant one), experiencing the medium as 'freeing' (Participant two), and feeling obligated to talk (Participant three) being cited as reasons for this:

'...in the past I mean I was in a bit of a different place but there'd be like really, really long pauses where it takes me a long time to say anything, that was, I wouldn't really have done that over the video conferencing... It would have been more awkward I think... They might have thought that the video had frozen.' (Participant three).

However, a quarter of participants (3/12) felt that videoconferencing slowed down certain therapeutic processes. For one participant this was down to an outright reluctance to engage with videoconferencing (Participant seven) which led to several sessions being conducted over the phone; whereas others were happy to engage, but felt that the medium did not facilitate open and honest conversation, at least in the first few sessions:

'...because it was only the second or third session wasn't it and the session didn't go very well because I can, I was still trying to get to grips with the Webex so I don't really count the first session as being much of a session...' (Participant 10).

Integrating phase I and phase II data

Phase I data suggests a reciprocal influence model for outcome and alliance, in which the therapist takes an active role in the forming, maintaining, and operationalising of the working alliance – such that some therapists more than others may be able to use the working alliance as a tool for change. This is perhaps demonstrated through the *connection with the therapist* theme, whereby skills such as demonstrating flexibility with the agenda, and developing a reciprocal and open relationship appeared to forge a closer connection between therapist and client, which perhaps allowed more change to be facilitated through the relationship.

Phase II data appear to demonstrate a unique process when therapy is delivered by videoconferencing (see Figure 1). Both participants' engagement with the medium and connection with their therapist seemed largely positive (with few exceptions), though when these two concepts combine, their influence on therapeutic processes seem somewhat polarised. This can perhaps in some way explain the variances within models; if participants felt therapeutic processes were hindered by working through the medium it stands to reason that the relationship between outcome and alliance would vary compared to those who felt the medium did not hinder therapeutic processes.

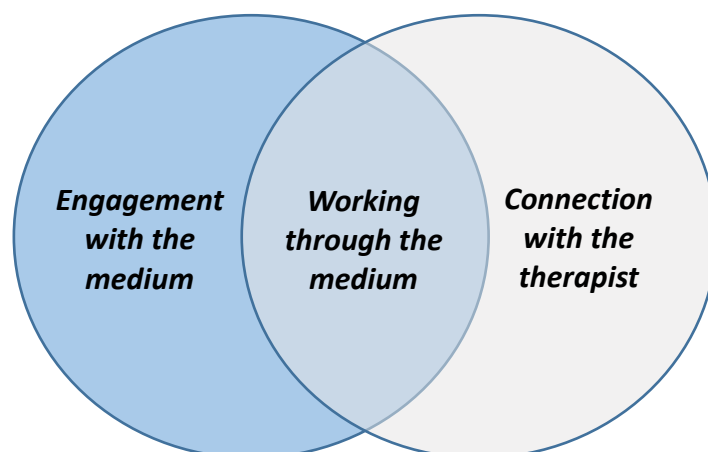


Figure 1: Synthesised core themes presented in a Venn diagram demonstrating how the two themes of 'Connection with the therapist' and 'Engagement with the medium' appear to overlap to create the theme 'Working through the medium'

Discussion

This study sought to achieve two primary research aims, through the application of an explanatory sequential design; (1) to investigate the working alliance as a potential change process in VCP, and (2) to gain an experiential understanding of the working alliance in VCP from the client's perspective. Results appear to provide evidence for the working alliance sharing a reciprocal influence with outcome in VCP, with two core concepts (*engagement with the medium* and *connection with the therapist*) combining from a participants' perspective to uniquely influence therapeutic processes in VCP (*working through the medium*).²³

At first glance, these results appear to support traditional face-to-face findings (Flückiger *et al.*, 2018; Horvath *et al.*, 2011; Horvath & Symonds, 1991; Martin *et al.*, 2000), and more recent findings for other remote treatments (Flückiger *et al.*, 2018), that working alliance is associated with outcome. However, the nuances of this relationship make interesting reading, particularly regarding the role of the therapist. As perhaps could be expected, models II and III demonstrate that previous session working alliance impacts outcome and vice versa. However, a significant therapist interaction was only seen in model II – suggesting therapists can actively impact the degree of association between previous session working alliance and next session outcome, but cannot do the same with regards to previous session outcome impacting next session working alliance. This suggests the working alliance can be operationalised as a change process by certain therapists in VCP, demonstrating the potential importance of actively monitoring, and working on, the working alliance.

It also interesting to note the varying effect sizes in the models. Model I demonstrates a comparable concurrent relationship between outcome and alliance as is reported in the face-to-face literature (Flückiger *et al.*, 2018; Horvath *et al.*, 2011; Horvath & Symonds, 1991; Martin *et al.*, 2000), however, an interesting paradox arises when examining the effect sizes of models II and II in line with above point. The above point notes that the working alliance can perhaps be operationalised as a change process to positively impact outcome (model II), though effect sizes for the completed models would suggest that

²³See Extended Discussion *Unique contribution* for further information regarding the unique contribution of this research.

it is previous session outcome which has the greater influence over current session working alliance and not vice versa (effect sizes of 10% and 32% being found respectively). Though this seems to be adequately explained by random slopes being introduced to model III, but not to model II, as the effect size of model III without random slopes is much more comparable to that of model II (14% and 10%).

When examining the working alliance from an experiential perspective, the current study is somewhat divergent from anticipated theory. Although phase I of this study used a measure of working alliance consistent with Bordin's (1979) definition – the SRS – these constructs were not necessarily prevalent in phase II of the study. Participants talked about the relationship with their therapist more in terms of bond (shared understanding, reciprocal relationship) and individual factors (such as participant characteristics and therapist skill), with tasks being mentioned very infrequently, and no mention of goals. Whilst it is acknowledged that this could be a result of the interview schedules and the questions asked, it is felt that this is at least partially controlled for by the fact that two different sources of interviews were used, and the finding is consistent across the two. The absence of goals and (largely) tasks from participants' discussion of their relationship with their therapist makes particularly interesting reading given that evidence in face-to-face therapy suggests that task and goals (and not bond) are more predictive of outcome, with bond being a response to outcome (Webb *et al.*, 2011).

Whilst this makes interesting reading, it is worth acknowledging that the medium itself (and expectations around it) may have influenced this finding. Participants expressed varying views as to the how communicating via videoconferencing would feel prior to taking part, with typical reservations being that it would somehow make conversation stilted and awkward. This perhaps primed participants to be more aware of the interpersonal elements of the conversation and talk about the (sometimes unexpected) connection built with their therapist; whereas something like an agreement on tasks and goals can be seen as more mechanical and not necessitating a strong connection to achieve, therefore clients may not talk about task and goals due to it being either taken for granted

that agreement could occur within the medium, or them not being viewed as important in the context of the therapeutic relationship.

Further to this, the concept of *presence* has been presented as a potential experiential factor in VCP, with particular implications for the bond experienced between participant and therapist (Bouchard *et al.*, 2007). However, within this study evidence to support *presence* as an experience encountered by participants was lacking. Indeed, most participants talked about maintaining an awareness of the medium being used, rather than the conversation seeming unmediated.

This may be at least partially explained by the VCP software used. A feature of the smart technology used was that only a video link of the individual who was speaking was displayed. This meant that when the participant was speaking only a video image of themselves would be displayed, with the therapist remaining unseen. This obviously does not mimic normal face-to-face interaction and perhaps acts as a semi-permanent reminder of the medium facilitating the conversation, thus making *presence* unlikely to occur.

Despite this, the fact that participants did display and talk about a strong connection with their therapist does call into question the importance of *presence* in VCP. From the data presented here, it can be argued that *presence* is not necessarily an important factor for everyone in the building of relationships within VCP. That is to say, that it may be the case that a relationship with the therapist would be enhanced by the experience of *presence* as the need to '*break the glass*' (Participant eight) would be reduced if the conversation felt unmediated. However, participants did also maintain an awareness of the mediated nature of the interaction, and this actually helped them be more open and facilitate a close relationship with the therapist (Participant two).

Another note with technology of this type is that it also potentially limits the non-verbal cues that both therapists and participants can pick-up on. Although this is one of the concerns noted by Rees and Stone (2005) – that clients won't be able to perceive warmth and empathy expressed by the therapist – it was not

something which was largely prevalent in the present study. Despite the nature of video feed, only two of the interviewed participants commented that this made the therapists harder to read. This is despite the video feed only ever displaying a picture of the person who is talking, thus missing out on the participants picking up on non-verbal cues (such as nods and facial expressions) in response to what they are saying.

More broadly, this study demonstrates that the participant-rated working alliance was significantly related to outcome and potentially important in facilitating said outcome. This makes interesting reading alongside what is already known. In the face-to-face literature, a moderate association between working alliance and outcome persists regardless of who rates alliance (client, therapist, or observer; Flückiger *et al.*, 2018; Horvath *et al.*, 2011; Horvath & Symonds, 1991; Martin *et al.*, 2000); whereas, within VCP-pooled alliance ratings from observer, client, and participant have been found to be inferior to the same pooled face-to-face alliance ratings, despite equivalence of outcome (Norwood *et al.*, 2018). This would seemingly suggest that the working alliance is less important (in terms of facilitating outcome) in VCP compared to face-to-face delivery. However, when this point is considered in light of the current study's findings (that participant-rated alliance demonstrates reciprocal influence with outcome), this point needs to be reconsidered. It perhaps seems more likely that client reported working alliance is important in determining/facilitating outcome in VCP, but perhaps this is less true for working alliance reported by observers and therapists.

This new conceptualisation is partly supported by evidence suggesting that therapists typically score early VCP sessions lower for working alliance when compared to clients (Simpson & Reid, 2014). This is certainly worthy of further investigation, but can perhaps be an example of therapists' potentially negative views as to the usability of VCP (Rees & Stone, 2005) impacting their views of the alliance with the client. However, given that client reported working alliance has been found to be important for outcome in this study, it is important for therapists to perhaps hold an awareness of their own feelings regarding VCP and ensure that any hesitancy they hold with regard to the medium is not

displayed in conversations with the client which could potentially impact their view of the working alliance. It stands to reason that if a client senses their therapist is not fully behind the therapy, this would certainly impact the bond the client felt.²⁴

It also seems pertinent to acknowledge the demographics of participants within this study. As may be expected, the vast majority of participants who received VCP were relatively young (most aged under 35), with many of those recruited for interview having experience using videoconferencing either for work purposes or socially. However, it seems worth noting that prior experience of videoconferencing did not seem to be associated with the experience of VCP (five out of the 12 participants recruited for interview had prior experience of VCP, yet ten out of the 12 reported high levels of engagement, with six out of 12 explicitly expressing high levels of comfort), nor did the age of participants (with the oldest person [50] being recruited for interview expressing comfort with the medium despite no previous experience). This makes particularly interesting reading in light of the recently published NHS long term plan (2019), which states an aim to provide video consultations as part of a standard menu of care in all GP practices within the next five years.

With regards to limitations of the current study, it is acknowledged that differential uptake of the offer to view a sessional VCP recording prior to being interviewed may reduce inter-comparability of the interview data. However, it is argued that sending a recording to everyone would not necessarily result in more participants watching them (and indeed might dissuade some from taking part, particularly if they had a bad therapy experience and thought they were required to watch it again in order to participate), and not sending any recordings may result in poor or false recall. Therefore, giving participants the option was seen as the best alternative.

The gap between therapy and interview is also acknowledged as a limitation at face value. However, it is not necessarily seen as a limitation of the study in terms of the quality of data being produced. Indeed, it has been argued that interviewing participants following a delay can result in better data – it can have

²⁴See Extended Discussion *Clinical implications* for further discussion regarding the clinical implications of this research.

the benefit of allowing participants time and space to reflect on their experience of therapy, resulting in greater insight (Elliot, 2010), with qualitatively robust data still being found with a delay of two years between therapy and interview (Hansen, Lambert & Vlass, 2015).²⁵

Broadly, this research points to two primary future areas of investigation: (1) given face-to-face literature would suggest different aspects of the working alliance are more or less important in facilitating change (Webb *et al.*, 2011), it would be worthwhile investigating this within VCP, particularly in light of apparent focus of participants on *bond*, and (2) as this research combined with previous literature (Simpson & Reid, 2014; Norwood *et al.*, 2018) alludes to potentially important differences between the impact of client and therapist reported working alliance, capturing clinicians' views of the working alliance in VCP and examining its importance to outcome seems important.²⁶

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[Journal article word count: 8460]

²⁵See Extended Discussion *Strengths and limitations* for further discussion regarding the strengths and limitations of this research.

²⁶See Extended Discussion *Recommendations for future research* for further discussion.

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EXTENDED PAPER

Extended background

The working alliance in face-to-face psychotherapy

Despite meta-analyses consistently finding that working alliance is related to outcome – with a consistent moderate association being found (Flückiger, Del Re, Wampold, & Horvath, 2018; Horvath, Del Re, Fluckiger, & Symonds, 2011; Horvath & Symonds, 1991; Martin, Garske, & Davis, 2000) – debate still exists regarding the manner of this relationship. In the most recent of these meta-analyses (Flückiger *et al.*, 2018; Horvath *et al.*, 2011) it has been found that the relationship between working alliance and outcome was consistent regardless of therapeutic orientation, alliance measure used, or the rater of alliance (client, therapist, or observer). It has also been suggested that the relation between working alliance and outcome grows in magnitude the later alliance is measured (Horvath *et al.*, 2011).

One proposed explanation for this phenomenon is that working alliance measures later in treatment are actually being confounded by prior symptom change (Crits-Christoph, Connolly Gibbons, Hamilton, Ring-Kurtz, & Gallop, 2011). That is to say that any rating of working alliance later in treatment will be hugely influenced by the perceived success or failure of the therapy to date, in such a way that working alliance (connection between therapist and client on goals, tasks, and bond) is not actually being measured, but is more an indicator for therapy success or failure.

A difficulty with investigating this phenomenon accurately is that many studies investigating working alliance use early working alliance as a between-participant variable (Falkenström, Granström, & Holmqvist, 2013). Typically, this involves measuring working alliance at one time-point and seeing how this relates to treatment outcome. Measuring working alliance in this way has multiple flaws, not least that it is a logical fallacy to relate a between-participant effect to an individual (Curran & Bauer, 2011). That is to say that just because a between-participant relationship between working alliance and outcome exists,

this cannot be taken as evidence that improving working alliance with an individual will improve outcome (Falkenström *et al.*, 2013). An example to demonstrate this point is highlighted by Curran and Bauer (2011) who point out that people who exercise are at a lower risk of heart attack compared to those who do not exercise (between-person effect), but an individual is more likely to experience a heart attack whilst exercising (within-person effect). To expand this example to the working alliance literature, Falkenström *et al.* (2013) point out that a between-participant relationship between working alliance and outcome could actually be a proxy for some client variable that is related to outcome and makes some clients experience the working alliance as better than others (such as temperament). In this case, working on the alliance would not result in better outcome as the working alliance is actually a proxy for some other variable.

When early working alliance is used as a within-participant variable, most evidence seems to demonstrate a reciprocal relationship between working alliance and symptom change, with several studies reporting evidence for a reciprocal influence model between working alliance and symptom change, such that the relationship between working alliance and symptom change is bi-directional (Crits-Christoph *et al.*, 2011; Tasca & Lampard, 2012; Falkenström *et al.*, 2013). However, alternative findings have also been reported.

One study found a unidirectional model, in which working alliance was found to predict symptom change, but not be predicted by symptom change (Zilcha-Mano, Dinger, McCarthy, & Barber, 2014) with yet another study finding the complete opposite – that working alliance does not significantly predict subsequent symptom change, but rather can be predicted by prior symptom change (Strunk, Brotman, & DeRubeis, 2010) – though this study is somewhat weakened by the fact only working alliance scores for the first four sessions were recorded.

Within the studies noted above, it seems important also to mention the timing and number of alliance measures taken. Only two explicitly report that alliance was measured at each session (Crits-Christoph *et al.*, 2011; Tasca & Lampard, 2012), with one measuring alliance only early in treatment (the first four

sessions; Strunk *et al.*, 2010), one periodically throughout (weeks two, four, eight, and 16; Zilcha-Mano *et al.*, 2014), and one does not specifically state the frequency of measurement (Falkenström *et al.*, 2013). Unfortunately, by not measuring alliance at each session, studies risk missing out on accurately measuring the influence of working alliance on outcome. By taking infrequent measures of working alliance, it seems to neglect the potential for movement within the construct. That is to say that, as working alliance is dependent on the interactions between therapist and client, it is open to change at each session (perhaps by the therapist misinterpreting something which has been said, or by the client feeling that therapist really understood them in a particular session) and by not measuring it in each session, studies can potentially miss these changes which could confound results.

A further consideration when examining working alliance as a change process is the individual constructs of the alliance. Evidence suggests that the different constructs of the working alliance may actually share different relationships with outcome (Webb *et al.*, 2011). The cited study found that therapist-client agreement on task and goals was predictive of outcome, but bond was not. This does suggest the breaking down the working alliance into its individual components would be meaningful; however, this was beyond the scope of the present study (see *Recommendations for future research*).

The present study attempts to overcome the regularly encountered limitations of not considering the working alliance as a within- and between-participant variable, and not adequately measuring the working alliance. In the present study analysis is conducted both within- and between-participants, on measures taken at each session pertaining to outcome and working alliance (see *Method* sections for more detail).

Remote relationships and mental health

When considering the working alliance in remote delivery methods, it seems pertinent to consider the broader concept of remote relationships and mental health. As the popularity of social media increased, so remote relationships became more common. Indeed, it has been reported that one in every three

minutes spent online is devoted to social media and (as stated in the main text) 98% of internet users are consumers of at least one form of social media (Global Web Index, 2017). With these statistics in mind, the notion of remote relationships and mental health is worthy of further thought, as it may have direct implications for the formation of relationships in VCP.

Across research, remote relationships have typically been found to be of perceived lower quality to offline relationships (Mesch & Talmud, 2006, 2007; Parks & Roberts, 1998). However, these studies are somewhat flawed in their definitions of relationship types. Typically, online relationships have been defined as relationships which *originated* online, and offline relationships as those which *originated* offline (with no distinction between the actual types of interaction in the ongoing relationship). It has been pointed out by Antheunis, Valkenburg, and Peter (2012) that these definitions do not adequately capture the nature of most remote relationships – with many users of social networking sites having relationship which are entirely online, along with online relationships which are combined with real world meetings.

When examining the different types of remote relationship, Antheunis *et al.* (2012) found that the perceived quality of online relationships supplemented with face-to-face contact converged with the perceived quality of solely face-to-face relationships over time. Purely online relationships, despite increasing in their perceived quality over time, were still viewed as being of inferior quality to face-to-face relationships. As online relationships in this sense were over social media such as Facebook (with no real-time face-to-face interactions), this suggests that there is something possibly enhancing about face-to-face contact and real-time feedback.

That there appears a distinct lack of quality to online relationships compared to those with a face-to-face component makes interesting reading when considered alongside the fact that there appears to be a growing trend of individuals with mental health difficulties seeking peer support through social media (Naslund, Aschbrenner, Marsch, & Bartels, 2016). In these terms it can perhaps be argued that the lower perceived quality of remote social relationships may actually aid an individual struggling with their mental health to

seek support remotely. Quality of relationship in the study by Antheunis *et al.* (2012) was measured combining three factors: proximity (the physical closeness of the person being interacted with), similarity (how similar friends are in their attitudes), and social attraction (how well the person being interacted with would fit into your current circle of friends). As a person seeking support online may be fearful of stigma (Link, Struening, Rahav, Phelan, & Nuttbrock, 1997) it stands to reason that they would perhaps not want to interact with someone with close proximity to them. They may also seek out different attitudes to their own (as their own attitudes may well be playing a part in the reason they are seeking support) which would likely mean interacting with someone who would not necessarily 'fit in' with their circle of friends. Each of these factors would result in a connection which may be termed as 'low quality', but actually have a potential benefit to the individual.

It has been well documented that people with mental health problems may experience higher levels of social anxiety and feel like they have lower levels of social functioning (Dickerson, Sommerville, Origoni, Ringel, & Parente, 2001; Schrank, Sibitz, Unger, & Amering, 2010). However, it has also been found that identifying with a social group can have benefits for the individual, such as increased self-esteem and a sense of belonging (Brewer, 1991; Davidson *et al.*, 1999; McKenna & Bargh, 1998). This seems to leave the individual in a sort of paradox – they may benefit from some sort of group interaction, yet group interaction also represents a huge source of anxiety, and the potential for rejection (Link *et al.*, 1997). It perhaps stands to reason then, that the individual may choose to seek some social support remotely – thus increasing their control over the interaction and limiting the impact of interpersonal difficulties, such as reading non-verbal communication or interpreting social cues (Mittal, Tessner, & Walker, 2007; Highton-Williamson, Priebe, & Giacco, 2015).

Related to the current study, the evidence presented here suggests that individuals are open to the idea of receiving support remotely, and this is perhaps easier to access than traditional face-to-face support given the reduced burden of social interaction (in terms of the anxiety this causes and having to read social cues). However, these online relationships, although perhaps easier

to engage in, are seemingly of a lower quality than relationships with a face-to-face component. In this way VCP can perhaps be seen as a happy medium between purely online support and traditional face-to-face support. VCP provides real-time feedback in an interaction, but with less interpersonal richness (Wootton, Yellowlees, & McLaren, 2003). This may actually enhance the comfort felt by the individual relative to receiving in the room face-to-face support, in that the reduced interpersonal richness and a more narrowed field of vision means less non-verbal communication to be read. This in turn may allow them to form a working alliance with the therapist, without maintaining an excessive focus or worry on their own actions, or reading the actions and intentions of the therapist.

Methods of remote delivery

Given the wide variety of remotely delivered interventions available, and the lack of consistency with terminology, synthesising the research proves to be a difficult task. As acknowledged by Berger (2017), remote interventions tend to differ in terms of the amount of client contact, the medium used to make client contact, and the level to which remote contact methods are integrated. When amalgamating all forms of remote delivery together, a meta-analysis has found a moderate association between working alliance and outcome (Flückiger *et al.*, 2018). However, due to this meta-analysis combining internet, e-mail, videoconferencing, and phone interventions, it is difficult to draw firm conclusions.

Broadly speaking, remote therapies fall into one of three categories (Berger, 2017): (1) remote unguided self-help (self-help programmes with no therapist contact at all), (2) remote guided self-help approaches (self-help combined with regular, but minimal, therapist interaction), and (3) remote psychotherapies (psychotherapy being conducted through a remote delivery medium). Categories two and three can then be further refined by the type and integration of remote contact (such as telephone, email, web-based chat, or videoconference). As the present study is concerned with the working alliance, category one is excluded from this brief review due to that particular method of remote delivery having no therapist contact, and information pertaining to VCP

will also be excluded as that is covered in another section (see *Working alliance in VCP*).

Remote guided self-help approaches

A meta-analysis of remote guided self-help interventions compared to face-to-face interventions has found equivalence of outcome (Cuijpers, Donker, van Straten, Li, & Andersson, 2010). However, the definition of remote guided self-help within this meta-analysis was broad, meaning some of the guided self-help programmes had a face-to-face component within them. Added to this, the focus of the meta-analysis was on only anxiety and depression. Whilst this can provide some primary evidence that remote guided self-help can be effective, the conclusions drawn from this are very much limited by the definition of guided self-help and the narrow focus on specific difficulties.

A slightly more up-to-date meta-analysis has been conducted with specific regard to internet-based guided self-help (Andersson, Cuijpers, Carlbring, Riper, & Hedman, 2014). Outcome equivalence with face-to-face treatment was also found, though for the purposes of this brief review, the methodology was also quite narrow. Although more encompassing of different difficulties (including studies offering treatment for social anxiety disorder, panic disorder, depressive symptoms, body dissatisfaction, tinnitus, sexual dysfunction, and spider phobia), the treatment model was limited to CBT-based delivery.

This particular meta-analysis also included several studies which compared internet-based guided self-help with group CBT. Therefore, although overall equivalence of outcome was found, this seems to lack some validity due to an unfair comparison, as the group potentially becomes a confounding variable. That is to say that it seems like two independent variables (one-to-one face-to-face CBT and group face-to-face CBT) have been amalgamated together in a comparison with a single independent variable (internet-based CBT guided self-help).

Although CBT-based treatments seem much more frequently delivered remotely than other models, they are by no means the only treatment model delivered

remotely – psychodynamic psychotherapy (Johansson *et al.*, 2012), acceptance and commitment therapy (ACT; Carlbring *et al.*, 2013), and problem solving therapy (Kleiboer *et al.*, 2015) have all been investigated as remotely delivered guided self-help. Johansson *et al.* (2012) used internet delivered psychodynamic psychotherapy with text-based therapist contact for treatment of depression. They found significantly better symptom reduction for those who received internet delivered psychodynamic psychotherapy compared to active controls, and roughly one third of participants in the treatment condition demonstrated ‘recovery’ (defined in these terms by a post-treatment score on the Beck Depression Inventory-II [BDI-II; Beck, Steer, & Brown, 1996] of 10 or less) – with benefits maintained at 10-month follow-up. Similar results have also been found for ACT-based treatment of depression (Carlbring *et al.*, 2013), with 25% of participants being treated via remotely delivered ACT-based guided self-help reaching recovery as defined in the same way as Johansson *et al.* (2012), with gains being maintained at 3-month follow-up.

Kleiboer *et al.* (2015) investigated the efficacy of problem-solving therapy delivered remotely. Within this study three active problem-solving therapy conditions were compared to a waitlist control: (1) without therapist support, (2) with therapist support on request, and (3) with weekly therapist support. Results showed that only those in condition three (with weekly therapist support) improved significantly more than waitlist control with regards to symptoms of depression. This goes some way to highlight the potential significance of consistent therapist contact.

With regards to the working alliance, evidence exists to show it is possible to build a relationship with a therapist, even with very limited contact. Kiropoulos *et al.* (2008) conducted an RCT examining face-to-face versus online self-help for panic. As part of this study participants were asked to rate their working alliance with their therapist at 12-week follow-up, with findings suggesting no significant difference was seen (the online element involved only email contact with the therapist). Though initially this seems to provide evidence for a successful alliance between therapist and client, it must be considered in light of the fact that any recording taken 12-weeks following intervention would doubtless be

influenced by the success or failure of said intervention in the same way as working alliance in face-to-face therapy has been shown to be influenced by prior symptom change (Crits-Christoph *et al.*, 2011).

Although the same methodological rigour does not yet seem to have been applied to measuring the working alliance in remote guided self-help approaches as has been applied to face-to-face interventions, an interesting finding regarding client expectation has been found. Bergman Nordgren, Carlbring, Linna, and Andersson (2013) administered a modified version of the working alliance inventory (WAI; Horvath & Greenberg, 1989) to participants prior to them receiving a remote guided self-help intervention for anxiety – the goal of the modified WAI was to assess the clients' expected working alliance. Working alliance ratings were seen to be already relatively high ($M = 5.25$), and had significantly increased by week three of treatment ($M = 6$). This presents more evidence to show clients are not only open to the idea of forming relationships with therapists online (even with minimal contact), but that these relationships can also exceed the expectations of clients.

When examining any potential downsides to remotely-delivered guided self-help interventions, an argument can be made for the limited therapist contact being a negative. As the evidence presented thus far has demonstrated, this does not seem to be a negative in terms of the overall effectiveness of the intervention, but it may be a negative in terms of recognising and dealing with deterioration. A study conducted by Ebert *et al.* (2016) examined the potential negative effects of internet-delivered guided self-help approaches for depression using an individual client data meta-analysis approach – a method of meta-analysis where individual client data is requested from the desired studies so that analysis can be conducted on the raw data of individuals, rather than pooling the individual study means.

Although the overall finding was that receiving intervention generally had a positive impact on symptoms of depression and lowered the risk of deterioration, a statistically significant higher risk of deterioration for those with lower education levels was found. This could potentially highlight a limitation of the sporadic therapist contact inherent in guided self-help approaches, such

that due to the therapist taking a less active role in the therapy, they are not adequately able to spot when people are struggling or (perhaps more importantly) why they are struggling. Guided self-help approaches are typically mass-produced interventions following a strict protocol, rather than something individually tailored to the individual. Therefore, it may well be that the materials used are not suitable for everyone, with those who have lower levels of education perhaps struggling to engage with the generic materials used. This is perhaps an area where remote psychotherapy has the edge over its guided self-help counterpart, in that it offers consistent and regular therapist contact (as in face-to-face therapy), and as such can be more individually tailored to the needs of the client. Indeed, this is consistent with research conducted on therapist responsiveness (Elkin *et al.*, 2014) which has found that a positive therapeutic atmosphere and therapist responsiveness (defined as the therapists' attentiveness to the client) facilitated treatment retention and client-therapist relationship.

Remote psychotherapies

Within remote psychotherapies, most of the research attention is centred towards VCP and will be reviewed elsewhere (see *Working alliance in VCP*), though evidence does also exist showing the potential effectiveness of text-based psychotherapy. Kessler *et al.* (2009) examined text-based CBT – CBT delivered remotely via real-time instant messaging – for depression within primary care settings. It was found that 38% of participants recovered from depression (as evidenced by a score of <10 on the Beck Depression Inventory [BDI; Beck, Steer, & Brown, 1987]) compared to 24% of a treatment as usual control. Unfortunately, no measures of working alliance or satisfaction with treatment were recorded in this study.

Working alliance in VCP

The same meta-analysis which reported non-inferiority of outcome for VCP compared to face-to-face delivery, also found inferiority of working alliance in VCP compared to face-to-face delivery (Norwood *et al.*, 2018). Working alliance for this meta-analysis was an amalgamation of both client and therapist

reported working alliance – this should mean the results are perhaps less influenced by observer ratings (with observers likely not experiencing *presence* in the same way as people participating in the therapy). However, combining therapist and client scores in this way may still in fact influence the results.

It has been reported by Simpson and Reid (2014), as part of a VCP literature review, that therapists typically report lower working alliance scores relative to their clients in early treatment sessions. This may explain why the working alliance via VCP was seen as inferior to face-to-face in the recent meta-analysis – perhaps therapist ratings of working alliance early in treatment were skewing the results. This may also be consistent with the idea of *presence*, as to be totally immersed in the experience of VCP it has been suggested that the individual needs to feel the interaction is unmediated (Lee, 2004). It may be that this is more difficult for the therapist, as therapists generally have a plethora of experience in conducting therapy by more traditional mediums (making the experience perhaps more novel and increasing awareness of the medium), and they have to maintain a slight focus elsewhere (for example formulating wider ideas regarding the client, thus meaning sporadic reminders of the delivery medium when their attention returns fully to the conversation). This may at least partly explain the reported reluctance of therapists to fully embrace VCP (Mora *et al.*, 2008). This reluctance would also need to be broken down before a therapist could be fully immersed in VCP, and so may translate to poorer working alliance scores from the therapist perspective at the beginning of treatment.

It has also been reported that some of the concerns from therapists regarding the delivery of VCP actually relate to perceived detriment to the client (Rees & Stone, 2005), such that therapists are concerned that VCP will limit the clients' ability to read warmth and empathy from the therapist (no such concerns were noted regarding VCP inhibiting the therapists' reading of the client). This perhaps suggests that a greater understanding of the working alliance from a client's perspective is needed to reaffirm psychologists' confidence in the delivery medium, as no such detriment to the working alliance is empirically reported from clients compared to face-to-face treatment (Bouchard *et al.*, 2004;

Ertelt *et al.*, 2010; Germain, Marchand, Bouchard, Guay, & Drouin, 2010; Stefan & David, 2013; Stubbings, Rees, Roberts, & Kane, 2013).

One major consideration when measuring working alliance in VCP (as previously mentioned) is that of external validity. Of the studies referenced above, all VCP treatment took place in a clinical building. Whilst it is acknowledged this is desirable from a research perspective – allowing the researcher to control as many variables as possible – it completely negates external validity, as VCP (and other remote delivery methods) is designed to be used in a place of the clients' choosing (typically the home). It may be that by attending a clinical building for VCP, the working alliance is somehow influenced – perhaps clients are less distracted as the clinical room contains less potential distractions than the home (such as pets and housemates), or perhaps there is a view from the therapist that clients are somehow more motivated to engage if they turn up to a clinic (as they have shown a willing to turn up for an appointment).

One VCP study which does have external validity was conducted by Yuen *et al.* (2013). They offered an acceptance-based behaviour therapy delivered by VCP for social anxiety. Although this was an uncontrolled trial, and so has no comparison group, a strong working alliance was reported by clients early-, mid-, and post-treatment, with these scores maintained at three-month follow-up. Statistically significant reductions in symptoms of social anxiety were also seen and maintained at follow-up.

One potential concern with working alliance within this study is that individuals are simply reporting high working alliance scores due to increased comfort with receiving intervention at home – this seems particularly pertinent given the difficulty which participants were struggling with was social anxiety. It could be argued that in much the same way as working alliance can become conflated with symptom reduction (Crits-Christoph *et al.*, 2011), it may here be a conflated feeling of comfort whilst accessing treatment – as clients are not being asked to attend a building or even leave the home. However, this concern is somewhat appeased by the fact that clients showed significant reductions in scores on the Acceptance and Action Questionnaire-II (AAQ-II; Bond *et al.*, 2011) – a

questionnaire which measures experiential avoidance – demonstrating that by the end of treatment clients were less avoidant of situations.

Presence

Over the years the phenomenon of *presence* has been conceptualised in many different ways (Lee, 2004; Cummings & Bailenson, 2016), though at its core remains the basic premise that *presence* is the subjective experience of being in one environment, even when physically situated in another (Stanney, 2002) – for someone using a remotely operated device, this would be the experience of being at the remote worksite rather than behind a control panel, and for someone in virtual reality, this would be experiencing the virtual world rather than the physical (Witmer & Singer, 1998).

In an attempt to further expand this definition, two literature reviews have been conducted in the area of *presence* (Lombard & Ditton, 1997; Lee, 2004).

Lombard and Ditton (1997) identified six competing and complimentary conceptualisations of *presence* from the literature and amalgamated them to define *presence* as a ‘perceptual illusion of non-mediation’ (Lombard & Ditton, 1997) in which the technology being used to immerse oneself in the virtual world appears to not exist at all. They describe the technology to function as a window (thus giving the sensation of the user sharing the same physical space as the virtual world they see through the medium). By terming it a ‘*perceptual illusion*’, Lombard and Ditton (1997) make the distinction that it is through the real time feedback of the human sensory, cognitive, and affect processing systems that *presence* is achieved (Riva *et al.*, 2007). That is to say, for all intents and purposes, that through various processing systems, the individual will experience the virtual world as a reality.

Lee (2004) goes further, to suggest that *presence* can be generally defined as ‘a psychological state in which virtual objects are experienced as actual objects in either sensory or nonsensory ways’ (p.27). Within this definition of *presence*, it is emphasised that the experience can be ‘sensory or nonsensory’, which seems to better acknowledge the day-to-day opportunities and experiences of *presence*. Most people can, in some small way, relate to *presence* described in

this way. The relatively common experience of becoming 'lost' in a good book can be thought of experiencing *presence* to some degree, though it is without sensory input. The experience of reading a book does not engage any of our senses in a way which is consistent with the story (if we are reading about war, we don't literally see, smell, taste, touch, or hear the battlefield) yet we are able to become completely immersed in the experience and commonly report emotional change as a result of what is being read (Mar, Oatley, Djikic, & Mullin, 2011).

Given that the definition by Lee (2004) seems to better explain *presence* by its acknowledgment of non-sensory experience, it is this definition which seems worthy of further exploration. Within this definition, Lee (2004) argued that three different subtypes of *presence* exist: *psychical presence* (the experience of virtual objects as having a real physical form), *social presence* (the experience of mediated interactions being unmediated [such as relating to computer generated characters as 'real' or not noticing videoconferencing equipment]), and, *self presence* (a feeling of virtual representations of the self being experienced as the actual self, such as identifying with a self-created computer avatar).

The notion of *social presence* is of particular interest to the present study. It is suggested the *social presence* occurs when individuals do not notice the mediated nature of the interaction (Lee, 2004), and simply relate to the interaction as a conversation. In relation to VCP specifically, Bouchard *et al.* (2004) define the concept as 'the impression of really being in therapy with the patient rather than being in a physically different location' (p.22). Although no explanation is offered as to how this is achieved or facilitated (indeed it is acknowledged that more research into this phenomenon is needed), supportive quotes are offered. Bouchard *et al.* (2004) delivered VCP for panic disorder and it is reported that participants often stated they forgot they were not in the same room as their therapist and made comments such as 'I'm glad you are here, it helps me so much' (p.22). This was taken as evidence of *social presence* in that participants were seemingly so immersed in the experience of therapy that the

delivery medium becomes largely irrelevant, and that they are experiencing therapy as if in the room with the therapist.

Quantitative analysis of *presence* from this study was later presented at an international conference (Bouchard, Robillard, Marchand, Renaud, & Riva, 2007), where it was claimed that *psychical presence* accounted for 20% of variation in the bond (a subscale of the WAI; Horvath & Greenberg, 1989) between client and therapist. In this study *presence* was measured using the Telepresence in Videoconference Scale (Bouchard & Robillard, 2000) – a validated scale designed to measure *social presence*, *physical presence*, and *absorption* (the feeling of being totally absorbed in the videoconference and not aware of time, with a feeling of coming back to reality at its conclusion) – with working alliance measured using the WAI (Horvath & Greenberg, 1989). Both measures were administered at the first, fifth, and last (12th) session, with results analysed using hierarchical regression. Both bond and *physical presence* scores were high at session one and increased linearly throughout recordings.

Before these results can be properly interpreted, terminology needs to be clarified. The scale used to measure *presence* (Telepresence in Videoconference Scale; Bouchard & Robillard, 2000) does seemingly define the *social presence* and *physical presence* in differing ways to the definition presented above. *Physical presence* is assessed by items such as ‘I got the feeling I was in the same room as the other person’ (more consistent with the previously offered definition of *social presence*), whereas *social presence* is assessed by items such as ‘I had the impression that I was actively participating to the conversation with the other person’ (which seems not to fit any definition of *presence*, but rather measures the interpersonal connection). For the purposes of simplicity and clarity, the term *presence* as it appears in other sections of this thesis will be shorthand for *social presence* as defined by Lee (2004 – the experience of interactions being unmediated). Applying this definition of *presence* to the results obtained by Bouchard *et al.* (2007) means they can be interpreted as *presence* accounting for 20% of variance in bond.

Whilst this provides seemingly solid evidence that *presence* does play a role in the working alliance in VCP, it does somewhat result in a ‘chicken or egg’ scenario in which it is unclear which came first (is *presence* enabling the establishment of a bond, or is the bond enabling *presence* to occur, or are they in fact concurrent?). The ambiguity of this finding stresses the need for more qualitative exploration of working alliance in VCP to gain a more experiential understanding, something which the present study aims to achieve.

Aims

The aims of the present study broadly relate to identified key research priorities for digital technology in mental health (Hollis *et al.*, 2018). This is a list of ten priority research questions, developed through consultation with professionals and expert patients ($n = 644$). The aims of the present study seem to particularly align with question eight on the identified ‘top ten’ list of research questions for digital technology in mental health: ‘Can the common elements of therapy (e.g. empathy, gestures, non-verbal cues) that come from person-to-person interactions be maintained with digital technology interventions?’

To investigate the working alliance as a potential change process in VCP

As the present study has collected sessional data, it enabled change in working alliance and outcome to be tracked both within- and between-participants throughout their time in therapy. This helps overcome previously cited barriers to assessing the working alliance as a change process; by providing sessional data it allows the investigation of the nature of the relationship between working alliance and outcome and overcomes previously cited limitations such as late working alliance scores becoming confounded by previous session outcome (this may still happen, but due to data being collected at each session, it can be tracked and interpreted as such), or such as only measuring working alliance as a between-participant variable.

To gain an experiential understanding of the working alliance in VCP from the client's perspective

An experiential understanding of the working alliance in VCP will be formed by interviewing clients and using data collected from these interviews to create a framework which can then be deductively applied to other interview data and interpreted alongside the quantitative analysis (see *Method* and *Extended method* sections for more details). Interviewing participants regarding their experiences of the working alliance provides two main benefits to the present study: (1) it provides a point of triangulation with quantitative results obtained (to see whether the qualitative experience of the individual matches the quantitative outcome), and (2) it has the potential to provide insight into working alliance development from the client's perspective, thus enabling the creation of recommendations to facilitate a better working alliance over VCP.

Secondary aims

A secondary aim of the present study was dependent on the outcome of the two primary aims stated. If the working alliance (as expected) was seen to be related to outcome (either bi- or uni-directionally), it was hoped that factors which influence the working alliance could be identified in order to make recommendations to facilitate a better working alliance in VCP. As has been suggested in the literature (Norwood *et al.*, 2018) it may be that the current measures of working alliance based on Bordin's (1979) definition do not adequately capture the working alliance in VCP. It may be that through the use of technology, an alternative (or additional) construct becomes important in forming a working alliance (such as a strong video or sound signal, or client empowerment – by enabling the client to seek support in their own home), and the present study aimed to provide preliminary evidence as to whether this is the case or not.

Extended method

Ethics

The present study was added as a substantial amendment to ethical approval already sought for the NIHR CLAHRC East Midlands RCT (Morriss *et al.*, 2019; Integrated Research Application System [IRAS] Project ID: 150153). The amendment was submitted through IRAS on the 27th November 2017, with approval being granted by the Health Research Authority on the 17th January 2018 (see Appendix III for confirmation of approval).

Study design and epistemology

The epistemological position of the study was one of critical realism, as proposed by Schilbrack (2014), in which it is argued that we should understand experience as ‘the direct or unmediated interaction of an organism in its environment’ (p. 169). That is to say that no knowledge exists in isolation, and that experience can only be understood in the context in which it is observed.

It was felt that critical realism in this context lends itself well to a mixed methods approach in which the primary objects involve not only quantifying an experience, but also gaining an understanding of the individual’s experience in that context. It has been proposed that utilising a critical realist approach enables the researcher to use qualitative and quantitative methods together in order to address each other’s limitations (Maxwell & Mittapalli, 2010). Applied to the current study, a critical realist approach allows for potential causal inferences while emphasising context-based validity (Shannon-Baker, 2016), such that the results obtained are understandable and interpretable in the context they are observed, whilst accepting the limitation that they can never provide a full picture of the phenomenon of interest.

As critical realism acknowledges that theory can never be complete and that an experience can never be fully known (Shannon-Baker, 2016), it allows the emergence of new and unexpected data, which perhaps challenges current theory. This was particularly important for the present study, due the plethora of

face-to-face working alliance theory which could otherwise limit our understanding of VCP working alliance.

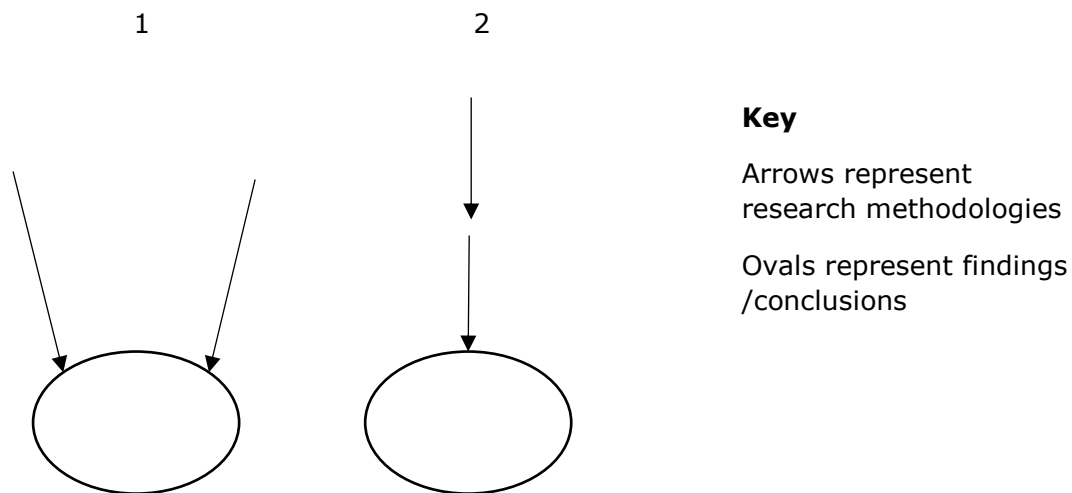


Figure 2: Varieties of mixed methods study (adapted from Lipscomb, 2008)

Figure 2 (adapted from Lipscomb, 2008) demonstrates visually the difficulty of integrating mixed methods data. Item 1 (Figure 2) demonstrates a common difficulty encountered in mixed methods research, in which two (or more) research methodologies separately explore the same area of interest (Lipscomb, 2008). Although this type of research may be called mixed methods, it does not blend the methodology and instead creates two (competing or complimentary) explanations of the same phenomenon. This cannot truly be thought of as mixed methods research (Creswell & Tashakkori, 2007) as the methodologies are not blended and, in theory, it is akin to conducting two separate investigations on the same area of interest.

Item 2 (Figure 2) demonstrates successful integration of different research methods in a true example of mixed methods research – one method of research informs not only the overall outcome but is also blended into the other strand of research being used (Lipscomb, 2008). With research conducted in this way, the goal is to have differing research methods combine to best answer

the question at hand and, as such, different parts of the research method may carry different weights to best answer the question (Johnson, Onwuegbuzie, & Turner, 2007). In the present research, consistent with explanatory sequential design, it is the quantitative aspect of the research which carries the most weight and informs the qualitative data collection – which in turn attempts to add a richness and qualitative explanation to the quantitative results.

Participants

Phase I

Table 7
Participant demographics

		Intervention arm of main RCT (n=78)	Received VCP (n=46)
Age	Median	31	27
	Range	18-79	19-66
Sex	Female, n (%)	56 (71.79%)	37 (80.43%)
	Male, n (%)	22 (28.21%)	9 (19.57%)
Occupational status	Employed, n (%)	32 (41.03%)	19 (41.3%)
	Student/Training, n (%)	27 (34.62%)	21 (45.65%)
	Homemaker, n (%)	0 (0%)	0 (0%)
	Retired, n (%)	7 (8.97%)	2 (4.35%)
	Unemployed, n (%)	12 (15.38%)	4 (8.7%)
Highest qualification	First degree or higher, n (%)	24 (30.77%)	19 (41.3%)
	A-Level or other higher qualification, n (%)	28 (35.9%)	22 (47.83%)
	O-Level/ GCE or other qualification, n (%)	19 (24.36%)	2 (4.35%)
	No qualifications, n (%)	7 (8.87%)	3 (6.52%)
Relationship status	Married/Partner, n (%)	32 (41.03%)	18 (39.13%)
	Single, n (%)	34 (43.59%)	24 (52.17%)
	Divorced/Widowed, n (%)	10 (12.82%)	3 (6.53%)
Ethnicity	White British, n (%)	58 (74.36%)	33 (71.74%)
	White Irish, n (%)	6 (7.69%)	5 (10.87%)
	White – any other white background, n (%)	4 (5.13%)	3 (6.53%)
	Mixed – white and black Caribbean, n (%)	1 (1.28%)	0 (0%)
	Asian – Pakistani, n (%)	2 (2.56%)	1 (2.17%)
	Asian – Chinese, n (%)	2 (2.56%)	1 (2.17%)
	Black – Caribbean, n (%)	2 (2.56%)	1 (2.17%)
	Other – any other ethnic group, n (%)	3 (3.85%)	2 (4.35%)

Note. Received VCP in these terms refers to the number of people who opted for VCP and attended and completed outcome measures for at least two sessions.

When considering the sample for this particular study, it is useful to consider it in relation to the overall sample from the main trial which this study is linked to (Morriss *et al.*, 2019). The reason for this is that the main trial offered two different forms of intervention in the intervention arm – VCP and a telephone intervention. For reasons of generalisability, it is important to consider the samples together, as if the sample for this study is noticeably different from the overall sample of participants in the intervention arm of the main trial (Morriss *et al.*, 2019), it perhaps shows that a different demographic are choosing to access VCP – a point which will be picked up on in the discussion section (see Table 7 for demographic comparison).

Despite a relatively wide age range in the present study, this was positively skewed with a modal age of 21 (see Appendix IV for histogram). This mirrored participant age from the main trial, which was also positively skewed with a modal age of 21. The biggest discrepancies within the demographic data pertain to the occupational status and highest educational qualification obtained by participants. A higher proportion of students, and lower level of unemployed or retired people, were seen in the present study, with participants generally reporting a higher educational level compared to the main trial.

Phase II

All four of the participants recruited exclusively for the present study were female (median age = 23.5, range = 21-32). In terms of the extreme case sampling, these four participants represented those who were ranked 21st and 30th in terms of top-ranking participants, and 4th and 6th in terms of bottom-ranking participants. Although it is acknowledged that participants who ranked 21st and 30th in terms of improvement do not necessarily fit with extreme case sampling at first glance, both these participants still achieved what would be referred to as a meaningful clinical difference in scores on the HAI at three-month follow-up (Tyrer *et al.*, 2017). These four interviews were used to create a framework of VCP working alliance to be deductively applied to data from the other interviews.

Table 8 presents demographic information for the all participant interviews used in the present study. It is acknowledged that having a rather homogeneous sample of relatively young women to create an initial working framework as part of the thematic framework analysis is not ideal. However, it was deemed that sticking to the extreme case sampling, and thus getting to hear from people who had seemingly had a positive and negative experience of VCP, was more important than purposefully recruiting males to add more heterogeneity to the sample.

Table 8
Interview participant demographics

		Purposeful interviews (n=4)	Separate interviews (n=8)	Overall (n=12)
Age	Median	23.5	34.5	31.5
	Range	21-32	20-50	20-50
Sex	Female, n (%)	4 (100%)	8 (100%)	12 (100%)
	Male, n (%)	0 (0%)	0 (0%)	0 (0%)
Occupational status	Employed, n (%)	2 (50%)	5 (62.5%)	7 (58.33%)
	Student/Training, n (%)	2 (50%)	2 (25%)	4 (33.33%)
	Homemaker, n (%)	0 (0%)	0 (0%)	0 (0%)
	Retired, n (%)	0 (0%)	0 (0%)	0 (0%)
	Unemployed, n (%)	0 (0%)	1 (12.5%)	1 (8.33%)
Highest qualification	First degree or higher, n (%)	3 (75%)	3 (37.5%)	6 (50%)
	A-Level or other higher qualification, n (%)	1 (25%)	4 (50%)	5 (41.67%)
	O-Level/ GCE or other qualification, n (%)	0 (0%)	0 (0%)	0 (0%)
	No qualifications, n (%)	0 (0%)	1 (12.5%)	1 (8.33%)
Relationship status	Married/Partner, n (%)	1 (25%)	1 (12.5%)	2 (16.67%)
	Single, n (%)	2 (50%)	5 (62.5%)	7 (58.33%)
	Divorced/Widowed, n (%)	0 (0%)	2 (25%)	2 (16.67%)
Ethnicity	White British, n (%)	0 (0%)	6 (75%)	6 (50%)
	White Irish, n (%)	2 (50%)	0 (0%)	2 (16.67%)
	White – any other white background, n (%)	1 (25%)	0 (0%)	1 (8.33%)
	Mixed – white and black Caribbean, n (%)	0 (0%)	0 (0%)	0 (0%)
	Asian – Pakistani, n (%)	0 (0%)	1 (12.5%)	1 (8.33%)
	Asian – Chinese, n (%)	0 (0%)	0 (0%)	0 (0%)
	Black – Caribbean, n (%)	1 (25%)	0 (0%)	1 (8.33%)
	Other – any other ethnic group, n (%)	0 (0%)	1 (12.5%)	1 (8.33%)

The further eight interviews on which the framework would be applied do seem more representative of the overall sample. Despite still all being female, it does bring up the median age from 23.5 (for the purposeful interviews) to 31.5 (for all interviews together). This is much more in line with both the age for people who opted for VCP (median age of 28) and of the wider study (median age of 31). The other demographics are largely in line with the overall VCP sample, with a perhaps a small deviation being seen in relationship status, with a higher proportion of those interviewed being single compared to the overall VCP sample.

Consent and recruitment

Phase I

No further informed consent was required for phase I of the presented study, as this was a secondary analysis of data already collected by the NIHR CLAHRC East Midlands RCT (Morriss *et al.*, 2019) and no further data were collected beyond that which participants had completed as per their involvement in the main trial.

Phase II

Participants (as part of consenting to take part in the main RCT) had agreed to be contacted by other researchers up to 18 months after they were initially recruited to the main trial. Those who were still eligible to be contacted were approached a maximum of three times: they were firstly contacted by phone which was followed up with an email containing the participant information sheet (attempt one; see Appendix V for participant information sheet), they were then contacted by email again two weeks later if no response had been received (attempt two), and a final attempt was made to contact them after a further two weeks if required (attempt three) – this final attempt was again a duplicate phone and email contact. The participant information sheet was checked by an expert patient linked to the main trial before being finalised.

If an individual expressed an interest in taking part, they were offered a session recording be sent out, to act as memory jog, and a time for interview was arranged. Session recordings to be sent out were selected using a random number generator and were sent out using *SendThisFile* – a secure email service used to send and receive large data files. Each file sent was password protected and expired after three days (giving participants three days to download their session recording). The password was unique for each participant and sent to them in a separate email.

Participants were offered either a remote interview (conducted over the phone) or a face-to-face one (conducting on campus at the University of Nottingham). For those who chose a face-to-face interview, a consent form was signed on the day, and verbal consent recorded prior to the actual interview (see Appendix VI for consent form). For those who chose a remote interview, a consent form was electronically signed and returned to the researcher via email – in this case a copy of both the consent form and the email chain was saved to demonstrate consent – and verbal consent was again gained prior to the actual interview beginning.

Interviews

As the main trial had been underway since 2016, and this specific study gained ethical approval in January 2018, the number of potential participants I could personally recruit to interview was limited – given that participants of the main trial had only consented to be contacted within 18 months of recruitment to the main trial.

As one of the aims of the present study was to gain an experiential understanding of the working alliance, it was important that both positive and negative VCP outcomes were analysed. This was felt the case as it would be assumed that to some degree everyone would form some sort of working alliance with their therapists (be that good or bad). It was for this reason that extreme case sampling was used – as a way of hearing about the working alliance from both those who seemingly may have had a more positive VCP experience, and from those who may have had a more negative one.

However, due to the time constraints on recruiting participants, it was impossible for this study to directly interview participants who had seemingly had the best and worst experiences of VCP – as evidenced by change in HAI score at three- or six-month follow-up – as it had been longer than 18 months since they were recruited for the main trial. In an attempt to overcome this limitation, other sources of interview data were used, such that four purposeful interviews were conducted to create the initial framework (recruited using extreme case sampling), which was then deductively applied to a further eight interviews conducted for a separate, but related, study (Malins *et al.*, 2019).

Interview procedures

Purposeful interviews.

The interview schedule designed for the present study, and used with four participants, is attached (see Appendix VII). Like the participant information sheet, this was checked by an expert patient prior to being finalised. The interviews were conducted in a semi-structured way, with the schedule being used as a guide, rather than a strict script to be followed. All four of these interviews were conducted by the author, with three being done remotely via telephone and one being done face-to-face.

Varying time had passed between participants finishing treatment and being interviewed. For two participants 11 months had passed between their final session and the interview, for one participant 12 months had passed, and for one participant 13 months had passed. Due to the relatively long time between treatment ending and an interview being conducted, all participants were offered to have a randomly selected session recording sent to them. This was not mandatory, and it was up to the individual participant to decide whether they wanted a recording sent out or not. Only one participant opted for this – who had had an 11-month gap between the intervention ending and being interviewed.

It is acknowledged that the differential uptake of this offer might have reduced the inter-comparability of the interview data, but it is argued that sending a

recording to everyone would not necessarily result in more participants watching them. Each therapy session typically lasted around one hour, and so mandating the viewing of a session may have dissuaded participants from taking part (given the greater time burden placed on them), which was something that needed avoiding given the already small recruitment pool.

Further interviews.

The other eight interviews which were used as part of the present study were conducted for a separate piece of research investigating sudden gains in therapy (Malins *et al.*, 2019). This separate trial was also linked to the main NIHR CLAHRC East Midlands RCT (Morriss *et al.*, 2019) and so had recruited from the same participant pool.

Participants were recruited for the sudden gains study if they had experienced a sudden gain, gradual gain, no change or deterioration during treatment. This meant they provided a heterogeneous sample of VCP experience to deductively apply the framework to. The interviews themselves were conducted by researchers connected to the main trial (Morriss *et al.*, 2019) and all of these interviews were semi-structured (following a topic guide based on the change interview; Elliott, Slatick, & Urman, 2001). All eight participants were sent out a recording of a target session to be viewed before the interview to act as cued recall.

Measures

Sessional feedback

The use of sessional data collection during therapeutic intervention is thought to increase the clients' involvement in their care (Wolpert, 2014), whilst also providing evidence of effectiveness and potential corrective feedback to shortcomings in the therapy experience (Green & Latchford, 2012). Empirically, the regular monitoring of interventions has been shown to have a benefit for the client (see Boswell, Kraus, Miller, & Lambert, 2015 for a review), which seems to be particularly important for clients who are not making progress with

therapy. Shimokawa, Lambert and Smart (2010) conducted a meta-analysis on the impact of feedback obtained from the Outcome Questionnaire 45 (OQ-45; Lambert *et al.*, 1996) throughout therapeutic interventions. It was found that post-treatment, those clients deemed to be 'not on track' whose therapist received feedback regarding this scored better than those clients deemed 'not on track' whose therapist did not receive feedback.

This highlights an important point regarding the protective nature of regular feedback in sessions – that therapists can modify the therapy experience if they are made aware of shortcomings. Increasing therapist awareness of shortcoming is very important given that therapists generally feel they are competent and that most of their clients improve – in a survey of clinicians 90% rated themselves high in ability, with none rating themselves as having lower ability than their peers, with the same survey finding clinicians estimate about 85% of their clients improve (O'Donnell & Lambert, 2012). Whilst debate can be had about what constitutes 'improvement', this figure is still much higher than those empirically reported in the literature, with the latest available data for the Improving Access to Psychological Therapies (IAPT) programme showing a recovery rate of 49.3% (scores moving below a pre-determined cut-off on sessional outcome measures) and a reliable improvement rate of 65.1% (scores lowering on sessional outcome measures by predetermined number; Community and Mental Health Team, 2018).

The disparity between the two scores (clinicians' perception of how many clients improve and the actual figures of how many clients improve) show the need for sessional rating. As clinicians may overestimate their own ability and have an optimistic outlook regarding the clients' progress within therapy, they may miss signs that a client is struggling and at risk of detriment. The sessional use of outcome measures overcomes this limitation.

Sessional outcome measures, however, do come with their own limitations, not least the added time burden that completing sessional outcome measures places on the therapist and client (Boswell *et al.*, 2015). With this in mind, a balance must be found between not adding to the time burden felt in delivering

sessional outcome measures, but also having a measure robust enough to serve a function of accurately measuring the desired construct.

SRS and ORS

The ORS was designed to accurately, but briefly, capture change in areas of functioning known to be susceptible to therapeutic intervention – these areas of functioning were derived from the OQ-45 (Lamvert *et al.*, 1996) and cover areas of change ‘individually’ (the client’s view of their personal wellbeing), ‘interpersonally’ (relational distress or the client’s satisfaction with close relationships), and ‘socially’ (the client’s view of relationships outside of the home – such as at work or school), as well having an ‘overall’ scale (general sense of wellbeing). It is designed to be administered at the beginning of each session, with the SRS being administered at the end. The SRS is designed to capture aspects of the working alliance, consistent with Bordin’s (1979) definition – task, goals, bond, and overall.

Moderate-to-strong correlation has been found between the ORS and the Outcome Questionnaire 45 (Lambert *et al.*, 1996; report by Miller *et al.*, 2003, and Campbell & Hemsley, 2009), the Depression Anxiety Stress Scale (Lovibond & Lovibond, 1995; reported by Campbell & Hemsley, 2009), the Rosenberg Self-Esteem Scale (Rosenberg, 1965; reported by Campbell & Hemsley, 2009), General Perceived Self-Efficacy Scale (Schwarzer & Jerusalem, 1995; reported by Campbell & Hemsley, 2009), and the Quality of Life Scale (Flanagan, 1978; reported by Campbell & Hemsley, 2009).

Psychometric properties of the SRS have already been presented (see *Method* section of the journal article), but both measures have also been found to have high likability among therapists (Miller, Duncan, Brown, Sorrell, & Chalk, 2006). Perhaps due to the short administration time, compliance rates for completing the ORS have been found to be much higher than other outcome measures, with Miller, Duncan, Brown, Sparks, and Claud (2003) finding that, after 12 months of administering the OQ-45 and ORS, compliance rates were at 25% and 89% respectively. The ORS has also been found to be stable over time in non-clinical samples, yet susceptible to change in clinical samples (Bringhurst,

Watson, Miller, & Duncan, 2006; Duncan, Sparks, Miller, Bohanske, & Claud, 2006; Miller et al., 2003), thus demonstrating its utility as a brief, yet adequate, measure of outcome.

Use of the SRS has been found to perhaps aid therapy retention. Miller *et al.* (2006) found that administering the SRS at the first session resulted in a three times higher likelihood of their clients returning for further sessions, compared to therapists who did not administer the SRS. Whilst this finding cannot entirely be put down to the active monitoring of the working alliance – clients may have not wanted to fill in the SRS as they already decided not to return and so did not see the benefit – it does have some face validity that by monitoring the working alliance (and noting and addressing any difficulties) retention would be aided. Indeed, it is argued that by tracking sessional progress, clients can see improvement in themselves and any barriers to progress can be noted and overcome (Miller & Duncan, 2000, 2004).

Whilst it is acknowledged that more robust and psychometrically sound outcome measures exist, the ORS and SRS are thought to be less burdensome on the client than longer measures. This allowed session by session monitoring, which greatly benefits the current study. Longer measures of both outcome and working alliance, though perhaps being a more accurate measure of the constructs, would no doubt impact the constructs themselves. For example, using longer measures (which take more time to fill in) will eat in to therapeutic time and may hinder the working alliance by engendering a feeling in the client that they are being reduced to just a number. The use of short sessional measures gives a brief insight into the desired construct and acts as a cue to the therapist to discuss areas of decline, detriment or anomaly.

HAI

The HAI (Salkovskis *et al.*, 2002) was used in the present study to identify participants to recruit to interview. Given that the main trial from which the present study was derived was assessing the effectiveness of an intervention for health anxiety, it could be argued that using the HAI in place of the ORS in the main analysis would make sense. However, given that the HAI (at 18 items

long) is a more burdensome measure for the client to fill in, it was not completed for each session, and completion rates between participants varied greatly. In the main trial the HAI was used as a baseline and follow-up measure of health anxiety (used at three-, six-, nine-, and 12-month follow-up). Given the infrequent nature of HAI data collected, it would not provide adequate data to address the aims of the present study if it were to be used in the main analysis.

That said, as the present study was concerned with gaining an experiential understanding of the working alliance from the participant's perspective, it was important to gain information from participants who seemingly had both a positive and negative experience of VCP. To that end, using the HAI to identify extreme cases to recruit for interview ensured that both positive and negative experiences were heard. Whilst this is not a fool-proof system of identifying positive and negative experiences, it stands to reason that in a trial designed to alleviate health anxiety, a positive experience could be thought of as having a greater reduction in health anxiety symptoms, and negative experience having lesser reduction (or increase) in health anxiety symptoms.

With that in mind (further to the information presented in the *Method* section of the journal article), the HAI has been found, in a systematic review and meta-analysis, to be a psychometrically sound tool able to assess health anxiety across clinical and non-clinical populations (Alberts, Hadjistavropoulos, Jones, & Sharpe, 2013). Throughout the majority of the reviewed studies, support was found for the two-factor structure proposed by Salkovskis *et al.* (2002), in which the first 14-items of the 18-item scale measure 'illness likelihood', with the final 4-items measuring 'negative consequences'. It is pointed out by Alberts *et al.* (2013) that these two subscales assess unique constructs and so the utility of combining them to measure health anxiety is questionable, though it is also acknowledged that they are often combined in the literature and the HAI remains psychometrically sound when this is done.

Some debate exists as to the accuracy of a clinical cut-off score on the HAI (a score above which a person can be considered to have clinically significant symptoms of health anxiety), with scores varying from 15 (Wright & Salkovskis, 2007) to 38 (Sulkowski, Mariaskin, & Storch, 2011) being cited in the literature.

However, for the present study this was not deemed to be a problem. As the HAI was being used to assess those who had the greatest improvement and least improvement/greatest detriment in health anxiety symptoms, the clinical cut-off score was not relevant.

For the purposes of identifying extreme cases for recruitment, it was important to be able to identify at what point 'improvement' could be classed. As stated in the *Interviews* section above, due to people either declining to be interviewed or no longer being able to be targeted for recruitment (due to passing out of the 18-month recruitment window), the participants recruited for interview representing successful treatment were actually those who were ranked 21st and 30th in terms of improvement on the HAI. However, they were still deemed to show a meaningful clinical difference in scores on the HAI from baseline to three-month follow-up. Tyrer *et al.* (2017) have argued, based on meaningful clinical difference from previous studies of anxiety using an alternative measure (Ihle-Hansen *et al.*, 2014; O'Neil *et al.*, 2014), that a reduction on the HAI of two points can be thought of as a meaningful clinical difference. It was therefore this point that was used in the present study to differentiate between those who improved (HAI score reduced by at least two points from baseline to follow-up) and those who had not (HAI score increased, remained the same, or decreased by less than two from baseline to follow-up), with those recruited for interview representing success having at least a two-point reduction in HAI score.

Analysis

Phase I: MLM

Although a mixed ANOVA may also provide a similar analysis, MLM was thought more appropriate given the way each handles missing data. Participants within the present study received up to 15 sessions of CBT, with no requirement for them to complete all 15 sessions if it were not felt necessary. This has resulted in an inconsistent number of data points for each participant. As a mixed ANOVA would use listwise deletion to handle missing data, using an ANOVA would limit the analysis to only those who received all 15 sessions, or

exclude all sessional data past the point that the first participant ended therapy. Using MLM makes use of all the data available (Enders, 2011).

Within each of the three models created, the covariance structure for each repeated measure was first-order autoregressive, with a variance components structure being used for all random effects introduced to each model. This is consistent with covariance structures widely cited within the literature (see Field, 2018).

Sample size.

With regards to sample size in MLM, the power for analysis comes from the number of cases per level (McNeish & Stapleton, 2016). That is to say that if a level one association was the area of interest, the number of cases at level one (in this case scores on outcome measures per individual) would be of importance with regards to adequate sample size, where as if association at level two were the area of interest, the number of cases at level two (in this case individuals) would be of importance.

Within the present study, associations at both level one and two are of interest. This makes the highest level of the model (level two; individuals) of most importance with regards to sample size, as this is always the level of the model with the fewest cases, and so the most open to error (Maas & Hox, 2005). Within the literature, however, recommendations vary widely for what constitutes an appropriate sample size, with recommendations of a minimum highest-level sample varying from 20 (Kreft & de Leeuw, 1998; Snijders & Bosker 2012) to 50 (Maas & Hox, 2005).

It has been noted that it is difficult to provide an accurate rule of thumb for sample size in MLM (Kreft & de Leeuw, 1998), but it is generally acknowledged that larger samples are desirable (as in all quantitative analyses). Unfortunately, standard sample size and power calculations may not provide accurate guidance for MLM. Twisk (2006) applied corrected sample size and power calculations to MLM data (corrected in the sense that they had been modified to

account for things such as the intra-class correction) and found that two different corrections yielded very different sample sizes.

As sample size calculations are generally unreliable for MLM, and the fact that this was a secondary analysis of pre-existing data (meaning further data could not be collected; Morriss *et al.*, 2019), no formal analysis of sample size was undertaken prior to analysis. However, a sample size of 46 is up towards the upper end of estimates of adequate sample size within the literature, which was felt appropriate for the present study given the unbalanced nature of the data (inconsistent number of level one observations within individuals).

Group mean centring

Centring refers to the reference value used in the model to estimate an intercept and can take place at either level of a two-level model (Paccagnella, 2006). At level one, models can be conducted un-centred, grand mean centred, or group mean centred – with only either un-centred or grand mean centred models possible at level two (Enders & Tofighi, 2007). In an un-centred model, the intercept represents the expected outcome for an observation, with a zero value on all explanatory variables (within the current study that would be a sessional score within an individual, with an assumed score of zero on predictor measures [ORS, SRS, ORS-1, or SRS-1 dependent on the model]). Grand mean centring allows interpretation of the intercept as the expected outcome at the overall mean (within the present study, a mean sessional outcome score across all individuals), whereas group mean centring allows the intercept to be interpreted as the expected outcome of a level one variable within a level two cluster (in the present study, the mean of a sessional outcome measure within an individual).

Each method has its merits and should be chosen carefully, depending on the structure of the data and the area of interest to the study (Paccagnella, 2006; Enders & Tofighi, 2007). Grand mean centring would certainly not be appropriate to the present study, as to grand mean centre would be to neglect the influence that the level two variable (the individual) has on the level one variable (the sessional outcomes). The choice between leaving data un-centred

or group mean centring was less straight forward, with some researchers actively discouraging group mean centring as practice (Kelley, Evans, Lowman, & Lykes, 2017). However, Enders and Tofighi (2007) argue that group mean centring can be beneficial when a strong relationship is known between the level one and level two variables. This is certainly the case within the present study, as it cannot be argued that the individual (level two) has anything other than a strong relationship with the sessional scores they report. If this is the case Enders and Tofighi (2007) state that MLM can be thought of as a two-step procedure, wherein one model is initially created for each level two case (each individual), with the resulting regression coefficients aggregated to obtain an estimate for the pooled within-cluster slope.

Therapist

Ideally, within the present study, therapist seen would be added as a third level to the models to accurately represent the data being analysed – outcomes scores, within individuals, within therapists. However, restrictions were placed on this due to the sample sizes required per level (see above) and there only being four therapists within the study. For this reason, the therapists seen was added as predictor at level two.

Phase II: Thematic framework analysis

Thematic framework analysis was developed in the context of social policy but has been increasingly used in psychological research (Furber, Garrod, Maloney, Lovell, & McGowan, 2009; Gale *et al.*, 2013; Midgley *et al.*, 2015). It is a flexible yet structured way of analysing qualitative data, sitting broadly within the family of thematic approaches to data analysis (Gale *et al.*, 2013; Midgley *et al.*, 2015).

Framework analysis can be thought of as having much in common with template analysis and both are thought of as ‘codebook’ approaches (Brooks, McCluskey, Turley, & King, 2015) in which a coding structure is developed and then applied to a dataset. Although perhaps not typically done in framework analysis, it is certainly not uncommon in template analysis to create a codebook

from one data source and then apply it to another (see example two in Brooks *et al.*, 2015). This very much reflects the method of the present study (using four purposeful interviews to create a framework, before applying it to eight separately conducted interviews).

Sample size.

The present study had a relatively small sample size. However, given the novel nature of the thematic framework analysis used (a two-phase analysis involving a framework begin created with purposefully collected data [first phase], before being deductively applied to related but separately collected data [second phase]), this was not thought to be a huge limitation. A total of 12 transcripts were used, with four purposefully conducted interview transcripts being used to create the framework, which was then applied to a further eight transcripts conducted for a separate study within the same participant pool (Malins *et al.*, 2019).

Rather than look at overall sample size, it may be more beneficial to breakdown the sample into its role within the analysis. The method of thematic framework analysis followed was that used by Heath *et al.* (2012), which is published step-by-step in a separate paper (Gale *et al.*, 2013). As this step-by-step process was applied to the present data, it makes sense to use Heath *et al.* (2012) as a comparison for sample size, along with general recommendations for using thematic approaches (Guest, Bunce, & Johnson, 2006).

Within the present study, four transcripts were used to create the initial framework (see below for more detail regarding how this was achieved). This was not thought to be a small sample to create an initial framework and is more or less consistent with Heath *et al.* (2012), who used three transcripts initially, with a further three to refine the framework – building and refining the framework were done using the same four transcripts in the present study.

To then apply the framework, chart and interpret the data, a further eight transcripts were used in the present study. This is somewhat shy of the 31 other transcripts used by Heath *et al.* (2012), though is not thought to be a problem

for two primary reasons. First (1), the current study benefits from using interview data from two different sources (purposefully conducted interviews to create the framework and related yet separate interviews to apply the framework to). This gives the present study some external validity that other studies using thematic framework analysis (including Heath *et al*, 2012) perhaps lack. By applying the framework to the same interviews (i.e. interviews which ask the same questions of the same population) it can be argued that the framework being created is a framework for assessing the interview being conducted, rather than the phenomenon of interest. By applying the framework to separate interview data, sought with a different purpose in mind, the present study overcomes this limitation, with the added external validity perhaps making up for a small sample size.

The second reason (2) the small sample size is not thought to be a problem is due to recommendations made by Guest *et al*. (2006). They propose that, within thematic analyses data saturation (the point at which new data yields little or no change to the codes) was found after 12 interviews, with 73% of codes being found in the first 6 interviews. Following these recommendations, the 12 transcripts used should provide adequate data for a thematic framework analysis.

The seven steps of thematic framework analysis were carried out as detailed below. They were taken from recommendations made by Gale *et al*. (2013), which are an expansion of the original five-step framework analysis as outlined by Ritchie and Spencer (1994).

Transcription.

All 12 interviews were transcribed verbatim by a third party. For the four interviews conducted purposefully for this study, a company named *Typing Service* was used – all audio files were sent via secure email and a confidentiality agreement was signed (see Appendix VIII).

Familiarization.

To familiarise myself with the data, all four of the purposefully conducted interviews were listened back to on audio (this also served the purpose of checking the accuracy of the transcriptions) and re-read several times. At this point of familiarisation, only the four purposeful interviews were listened to and read. This was to avoid the framework being confounded by content from the other eight interviews.

Coding.

All four purposeful interview transcripts were coded inductively. Each interview was coded separately (on different days) in an attempt to minimise the impact of the previous interviews coding on each subsequent interview. Codes were added to the left-hand margin, with notes and ideas added to the right. Potential quotes to represent codes were underlined (see Appendix IX for coded extracts).

A reflective log was kept throughout the thematic framework analysis, and this served as a way of checking codes were inductive and were not influenced by theory. Consistent with a critical realist epistemological stance, it is acknowledged that I, as a researcher, cannot fully suspend my own knowledge and will necessarily impact the data. However, at this stage of analysis, it was felt that the use of a reflective log kept this to a minimum.

Developing a working analytical framework.

Codes for each of the four purposeful interviews were compared and grouped into clearly defined categories. These categories formed the working analytical framework to be applied to the further interviews. For a code to be considered for use in the framework, it had to be deemed either highly important and recurrent, or highly important but not recurrent by use of saliency analysis (Buetow, 2010). For a code to be deemed highly important but not recurrent, it had to be present in at least of two of four purposeful interviews used to create the framework. Although it can be argued that a code can be highly important

but not recurrent if it only appears in one transcript, to include codes such as this would open the framework too broadly and allow it to perhaps be confounded by the participants' individual differences and not necessarily focus on the desired phenomenon.

The development of the framework was an iterative process, with the framework initially being created with codes from one transcript. The framework developed from a single transcript was then applied to a second transcript and adapted and refined in light of this. The new framework was then applied to a third transcript and adapted and refined before being applied to the final transcript. This process of applying each iteration of the framework to a single transcript of the four, and then adapting and refining, continued until the framework could be applied to all four transcripts without need for further adaptation or refinement.

At this point it was important that the framework was still being inductively developed (the deductive application of theory and results from the quantitative analysis took place at step 7; see *Interpreting the data*). To that end the use of reflective log proved invaluable. One iteration of the framework contained the code *presence* (see *Extended background* for discussion on *presence*). The use of a reflective log enabled me to deliberate whether this was something which I was seeing purely in the data, or whether I was prematurely interpreting the data to fit existing and expected theory. On reflection the code was changed to better articulate the pure meaning of the data, as it was decided I was prematurely adding interpretation – the code was renamed *distance/closeness*.

Prior to moving on to the next stage of analysis, the working analytical framework was checked by two research supervisors (RSF and NM), to provide some inter-rater reliability. This was done by using a random number generator to select one of the four purposeful transcripts. This transcript was then sent to both supervisors along with the working analytical framework. They then used the framework to code the transcript before the three of us met to discuss this. Any difference in coding was decided by consensus and final amendments were made to the framework (see Appendix X for the working analytical framework).

Applying the analytical framework.

The further eight interviews were then read and re-read for familiarisation, before applying the existing working analytical framework to all 12 transcripts by indexing them with the pre-determined codes and categories. As the additional eight interviews were not conducted specifically for this study, during the reading and re-reading each transcript was reviewed for relevance to answering the current study's research questions. All data from the transcripts which were felt to not help answer the research questions (passages not pertaining the relationship between the participant and therapist) were excluded from indexing.

In order to check the accuracy of the indexing, a transcript from the eight additional ones was selected at random (by use of random number generator) and the indexing checked by two research supervisors (RSF and NM). Given that the indexing was done with interviews sought for a different purpose than those of the current study, this provided a good test for the robustness of the framework applied to related data not sought with the same aims and purpose in mind (see Appendix XI for extracts of indexed data – for ease of coding, numbered codes were used at this point to save writing out the full code each time).

Charting.

Charting is the process of reducing the data obtained to create a brief, yet meaningful, summary of data from each transcript. A spreadsheet created in *Microsoft Excel* was used chart the data, with each category being summarised by transcript and codes, with page numbers provided to access supporting quotes. This was done for all 12 interviews conducted (see Appendix XII for spreadsheet extract).

Interpreting the data.

Themes were finalised by reviewing the charted data and revisiting the studies original aims and objectives. In this stage it was attempted to go beyond the descriptive presentation of individual transcripts, to develop themes which

potentially offered an explanation for what was being seen within the data. This was achieved through the use of a reflective diary (kept throughout phase II of the analysis), examining each theme generated against the original supporting quotes, and by deductively integrating the quantitative data and relevant theory. In these terms relevant theory was thought be Bordin's (1979) theory of working alliance (as this is consistent with the measures used within the present study) and the theory of *presence* (as this provides a potential explanation for unique processes seen in VCP; see Appendix XIII for theme interpretation). The final synthesised themes were discussed with, and checked by, one research supervisor (NM).

Extended results

Therapists

Table 9
Participant demographics by therapist

		Therapist one (n=29)	Therapist two (n=9)	Therapist three (n=4)	Therapist four (n=4)
Age	Median	27	35	32	28.5
	Range	20-59	19-66	21-50	22-43
Sex	Female, n (%)	26 (89.7%)	5 (55.6%)	3 (75%)	3 (75%)
	Male, n (%)	3 (10.3%)	4 (44.4%)	1 (25%)	1 (25%)
Occupational status	Employed, n (%)	13 (44.8%)	3 (33.3%)	2 (50%)	1 (25%)
	Student/Training, n (%)	13 (44.8%)	3 (33.3%)	2 (50%)	3 (75%)
	Homemaker, n (%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)
	Retired, n (%)	0 (0%)	2 (22.2%)	0 (0%)	0 (0%)
	Unemployed, n (%)	3 (10.3%)	1 (11.1%)	0 (0%)	0 (0%)
Highest qualification	First degree or higher, n (%)	9 (31%)	5 (55.6%)	2 (50%)	3 (75%)
	A-Level or other higher qualification, n (%)	16 (55.1%)	3 (33.3%)	2 (50%)	1 (25%)
	O-Level/ GCE or other qualification, n (%)	2 (6.9%)	0 (0%)	0 (0%)	0 (0%)
	No qualifications, n (%)	2 (6.9%)	1 (11.1%)	0 (0%)	0 (0%)
Relationship status	Married/Partner, n (%)	11 (37.9%)	4 (44.4%)	2 (50%)	1 (25%)
	Single, n (%)	15 (51.7%)	4 (44.4%)	2 (50%)	3 (75%)
	Divorced/Widowed, n (%)	2 (6.8%)	1 (11.1%)	0 (0%)	0 (0%)
Ethnicity	White British, n (%)	21 (72.4%)	9 (100%)	2 (50%)	1 (25%)
	White Irish, n (%)	3 (10.3%)	0 (0%)	1 (25%)	1 (25%)
	White – any other white background, n (%)	3 (10.3%)	0 (0%)	0 (0%)	0 (0%)
	Mixed – white and black Caribbean, n (%)	0 (0%)	0 (0%)	0 (0%)	0 (0%)
	Asian – Pakistani, n (%)	1 (3.4%)	0 (0%)	0 (0%)	0 (0%)
	Asian – Chinese, n (%)	1 (3.4%)	0 (0%)	0 (0%)	0 (0%)
	Black – Caribbean, n (%)	0 (0%)	0 (0%)	1 (25%)	0 (0%)
	Other – any other ethnic group, n (%)	0 (0%)	0 (0%)	0 (0%)	2 (50%)

Given therapist seen was added as a predictor in two of the three models, it makes sense to examine client differences at the start of treatment between therapists. This ensures that any significant results attributed to therapists cannot be better explained by participant individual differences. Table 9 shows

basic demographic information for participants seen by each therapist. Although it is difficult to draw firm conclusions as to how similar each therapist's caseload looked (due to the divergence in relative caseload sizes), no major discrepancies are noted in demographic details.

To ensure participant severity of symptoms did not influence outcome of the models, a one-way ANOVA was conducted examining the pre-treatment HAI scores for participants by therapist. No significant between therapist difference was seen in participants' pre-treatment HAI score ($F(3, 42) = .651, p > .05$). This means models which show a significant effect of therapist can more confidently be attributed to the individual therapist, rather than explained by differences in participant demographic or symptom severity.

Assumption testing

MLM carries the same assumptions as general linear models: normality (the assumption of normal distribution of the data), linearity (the assumption that the relationship between outcome and predictor variables is linear in nature), homoscedasticity (the assumption that variance around the outcome is the same at all values of the predictor variable), and independence (the assumption that errors within the model are independent of one another). Each of these assumptions was checked for each of the variables used in the three models.

Normality

Normality is frequently tested using the Shapiro-Wilk test, however, the Shapiro-Wilk test can be unreliable for larger samples (>300 ; Kim, 2013). For this reason, normality was assessed using z-scores obtained by dividing the skew values and excess kurtosis by their standard errors, consistent with Kim (2013).

For normality to be assumed for a sample size over 300, a z-score for skewness of between -2 and 2 would be required, with a kurtosis score between -7 and 7 (Kim, 2013). This was not the case for any variables across all models (see Table 10). The centred ORS and centred ORS-1 did achieve an

acceptable level of kurtosis according to the z-score, but this alone is not enough to assume normality.

Table 10

Summary statistics for tests of normality

Variable	Sample size (n)	Skewness	SE _{skewness}	Z _{skewness}	Kurtosis	SE _{kurtosis}	Z _{kurtosis}
CSRS	400	-3.065	0.122	-25.122	22.465	0.243	92.449
CORS	445	-0.481	0.116	-4.147	0.726	0.231	3.143
CSRS-1	399	-3.062	0.122	-25.098	22.421	0.244	91.889
CORS-1	444	-0.493	0.116	-4.25	0.72	0.231	3.117

Note CSRS = Centred Session Rating Scale, CORS = Centred Outcome Rating Scale, CSRS-1 = Centred Session Rating Scale-1, CORS-1 = Centred Outcome Rating Scale-1; SE = Standard Error.

Despite the assumption of normality being violated for all variables used in MLM, this was not thought to be a huge limitation. Given the large sample size being used, it is unsurprising that normality is violated as a larger sample size increases the power of the statistical test and increases the chances of detecting small deviations from normality. Indeed, it has been argued that if hundreds of samples are analysed (as is the case), the assumption of normality itself can be dismissed (Ghasemi & Zahediasl, 2012). This is due to the central limit theorem which states that, as samples get larger, even if the population is non-normally distributed, the sampling distribution of the mean will approach normality as the sample size increases (Field, 2018).

Linearity and homoscedasticity

Linearity and homoscedasticity were tested concurrently by the visual examination of scatter plots of residuals. Although Levene's test (Levene, 1960) could be used to test for homoscedasticity, this was not thought appropriate for the current study given the large sample sizes, as this can often mean trivial difference differences in group variances produce significant results (Field, 2018). Scatterplots for all models are displayed in Appendix XIV.

If the assumption of linearity is violated the scatterplots should show curve in the residuals. This is not the case for any of the three models, and so it can be concluded that the assumption of linearity is not violated. If the assumption of homoscedasticity is violated the residuals would form a funnel shape. This is

certainly not the case for model III, and is not thought to be the case for models I and II – though they undoubtedly come closer to showing heteroscedasticity.

Independence

Independence of observation was assured at recruitment due to random assignment to the treatment and control conditions within the main trial (Morris et al., 2019). The choice afforded individuals with regards to the treatment they received (VCP or telephone) may to some degree impact independence, such that certain participants with certain traits chose VCP over telephone intervention and perhaps introduced shared error into the analysis. However, comparing demographic information (presented in Table 7) shows that the two samples are largely homogenous.

Cumulative effect

It is accepted that within models II and III, only the measures completed at the session immediately prior is considered as a predictor of outcome or alliance. As it is accepted that it may be a cumulative effect of previous sessions working alliance influencing outcome, and vice versa, two alternative models were also created.

An alternative model II was constructed with the ORS as the dependent variable and SRS-1, and cumulative SRS (SRS*session) as the predictors. However the SRS*session interaction was not significant in predicting ORS, $F(1, 166.65) = .009, p > .05$, with a poorer model fit than that of the original baseline model II (2260.04 as demonstrated by the -2LL).

An alternative model III was also constructed with the SRS as the dependent variable and ORS-1, and cumulative ORS (ORS*session) as the predictors. Again, the cumulative effect of outcome (ORS*session interaction) was not significant in predicting SRS, $F(1, 261.32) = 2.11, p > .05$, with a poorer model fit than that of the original baseline model III (1290.3 as demonstrated by the -2LL).

Thematic framework analysis quality check

Table 11

Quality check for thematic framework analysis

Guidelines for qualitative research	Defined as ¹	How it was met in the present study
Owning one's perspective	The authors specify their theoretical orientations and anticipations both in advance of, and during, the research.	Epistemological position of the author clearly stated (see <i>Extended method; Study design and epistemology</i>) and expectations revisited throughout the analysis (see <i>Extended method; Analysis; Phase II: Thematic framework analysis</i>).
Situating the sample	The authors describe the research participants and their life circumstances as they pertain to the research.	Detailed demographic information for participants are presented in <i>Extended method; Participants</i> . The relevance of this to any results obtained are also discussed (see <i>Extended discussion; Strengths and limitations</i>).
Grounding in examples	Examples of data are provided to aid reader understanding and allow for exploration of alternative meaning.	Data extracts are presented throughout result section (see <i>Results; Phase II: Thematic framework analysis</i>).
Providing credibility checks	Credibility of themes are checked using at least one method.	Theme credibility was checked by interrater reliability (see <i>Method; Measures and analysis; Phase II analysis: Thematic Framework analysis</i> and <i>Extended method; Analysis; Phase II: Thematic framework analysis</i>) and against direct quotes from the transcripts themselves (see <i>Interpreting the data</i> in the <i>Extended method</i>).
Coherence	Data are presented in a coherent way with an underlying structure presented for the phenomenon of interest.	The sequential steps of analysis are presented in various forms to aid transparency and coherence (see <i>Method, Extended method, and Appendix IX-XIII</i>). Findings are summarised and drawn together (see <i>results; Integrating phase I and phase II data</i>).
Accomplishing general vs. specific research tasks	Appropriate range of data is analysed and presented to support the proposed general or specific understanding.	Interviews carried out with a varied sample of participants from two difference interview sources (see <i>Extended method; participants</i>), with a specific warning stated with regards to generalisability (see <i>Discussion</i>).
Resonating with readers	The research is presented in such a way as to aid readability and accurately portrayed the subject matter.	All sections have been checked by research supervisors (RS-F, NM, and SM) to ensure resonance as so far as can be reasonably expected.

¹All definitions are adapted from Elliot, Fischer, and Rennie (1999)

To ensure the thematic framework analysis conducted was of sufficient quality and robustness, a quality check was applied to it. This quality check was taken

from Elliot, Fisher, and Rennie (1999) who devised a general framework for assessing the quality of qualitative analyses in general. The findings of this quality check are presented in Table 11.

Engagement with the medium

Further supportive quotes are offered in this extended section, to elaborate points raised in the main results section. As mentioned, a spilt was noted as to how videoconferencing was seen prior to VCP, with some participants feeling it was just like a normal conversation:

‘...like it just seems normal, like a normal life, if that makes sense, because we’re, I’m so used to like, you know, video chatting with my friends, it just seemed like a normal interaction really.’
(Participant four).

Yet others feeling it may make conversation awkward and forced due to a perceived need to avoid long pauses:

‘...I’m an awkward enough person as it is without being over a video conferencing, [Laughs] I do it a lot for work and I don’t really like it generally, yeah, I prefer to have a few minutes to think about my answer without looking like I’m just staring off into space.’
(Participant three).

With regards to engagement being facilitated by the technology, specific mention was made as to how the technology could be used uniquely:

‘...being able to bring the documents up probably helped with the communication because we could go back to what had been said and we could look over the key words and phrases and also if some of the, some of what you’ve said is in front of you, it kind of puts you back in the swing of the conversation you were having before...’ (Participant one).

Despite concerns being expressed by many participants as to the privacy and confidentiality of accessing VCP in an uncontrolled environment, one participant was noted to actually embrace some of these difficulties, and use VCP as a bonding experience with other housemates:

'I think a lot of my relationships actually got stronger and closer because we all bonded, my whole house last year benefited and bonded. Every week it was 'so what have you done this week, what have you learned' and, you know, they were just as interested, to be honest, I'm sure they were outside my door with like a glass listening in, taking notes!' (Participant five).

Technology problems were also frequently encountered in VCP, with half the participants (6/12) commenting on these. However, two distinct views seem to exist with regards to technology problems. On the one hand, they seemed to be acknowledged as an inevitable part of accessing support through this medium, which was seen to such a degree that participants willingly made adaptations to continue to access support in this way, such as sitting close to internet router (Participant two), and accessing the VCP through their phone (Participant four), with one participant even buying a new laptop after a technologically disturbed first session (Participant three).

The other viewpoint expressed regarding technology problems was that they meant participants were missing out on a potentially better experience if support was accessed in a traditional face-to-face manner:

'But then the computer broke, so on the last we couldn't do it, so I had to just talk on the phone... I wouldn't say hindrance, because I don't think that. I wouldn't say hindrance, but I just would prefer to have gone and met somebody face to face and spoke to them properly.' (Participant seven).

Connection with the therapist

As with the extended *Engagement with the medium* section, this section provides further quotes to elaborate on points made within the main results section. The relationship was seen as important by most participants:

'I think if she didn't get, if she didn't really understand me on a personal level, it would be difficult to then delve into like all the issues that I was facing, so I think it was really good because she... I think it's very good that she was able to understand me as a person because we were able to meet all the things I needed to work on.' (Participant four).

Though it also seems pertinent to note that although most participants felt the relationship they had with their therapist was important, this was expressed in very different ways, with one participant using the relationship to gauge the success of their own engagement:

'I think it was important to me because it made me feel like, you know, I wasn't doing anything wrong, I was doing what was needed and I wasn't being annoying or anything.' (Participant three).

A number of participants (5/12) talked about previously having had therapy, with all of these participants reflecting on the VCP experience positively when compared to other therapeutic encounters:

'Rather than, you know, I've had other therapy before where it's almost, not forced on you, but you don't feel as in control with it, but with the whole of these sessions really I felt like I'd been encouraged to think positively and draw out the positives in things and make – almost like try and change my mind-set, you know.' (Participant 11).

Inherent within these comparisons is an acknowledgement that previous therapy (and the connection made with the previous therapist) sets an

expectation for the connection through VCP, which can (at least initially) influence interactions:

'It was sort of, our first few sessions were a little bit tentative and they just weren't quite clicking. But it wasn't clicking because it was done wrong, it was just because I didn't know what really to expect or where to go with it, whereas after this session I knew exactly where everything was going and what was happening and boom.' (Participant five).

A reciprocal relationship was demonstrated in several ways and seemed unique to the individual participants. Small personal disclosures, such as the therapist stating they cycled to work helped the relationship seem reciprocal for one participant (Participant two), whereas another participant felt being given the space in sessions to talk about areas they felt important which weren't necessarily on the agenda demonstrated reciprocity (Participant six). One factor which seemed to demonstrate a reciprocal relationship across most participants was a shared sense of humour.

'And also as the sessions went on we got to like know each other and there was laughing and joking about things as well. So it made me open up like to who I am.' (Participant seven).

Whilst most participant talked about a close relationship helping to facilitate honesty, one participant actually felt that a more distant and professional relationship helped with this:

'I think I got along with her quite well, it was obviously a very professional relationship and so, you know, I don't really know much about her personally but she knows a lot about me but that was fine, if anything that was actually better because I didn't feel like I had to hold anything back.' (Participant three).

Working through the medium

The main results section alludes to polarised views of the relationship when it considered as something mediated by videoconferencing, even though participants' attitudes towards the technology (*Engagement with the medium*) and their therapist (*Connection with the therapist*) were largely positive. This extended section provides further examination as to the polarising potential of videoconferencing on therapeutic processes.

Almost half the participants (5/12) mentioned the readability of physical cues during VCP, with two of these making reference to limited field of vision making physical cues harder to pick up on and read:

'I think that for some people visual cues may be harder to read or possibly less significant compared to other body language because you do get a message across better if you've got all of your body language normally I think.' (Participant one).

This seems to suggest that emotion such as empathy may be harder for participants to successfully read (or therapists to successfully convey). However, the other three participants who mentioned the readability of physical cues felt they could be read fine, with a combination of eye contact, body language, and the words used by the therapist being adequate to convey meaning and emotion:

'Well I think the way he did it, he wasn't sort of rolling his eyes. His body language was not like 'oh shut up let me get a word in edgeways' like a lot of people's would be... It was his body language... It was his body language and the words he used really.' (Participant nine).

This notion of using the therapist's eyes to aid the reading of emotion is an interesting one. An increased necessity for eye contact was noted by one participant in VCP, who actually felt a little uncomfortable with it. This felt discomfort may then naturally impede an individuals' ability to read emotion:

'I think it increased the necessity for it [eye contact] because if you're watching, well for me if you're watching somebody speak on a screen there's obviously a sort of a very small box that you can look at, so if you're looking at the box, yes you can focus in on different bits of what's in the box but you still have to be vaguely in that area to look like you're paying attention, whereas if you go off and look somewhere else it looks like you're not really listening very much, whereas in day to day life it's actually very creepy [Laughs] to stare at roughly the same bit of space for too long, it's actually much more natural to go and look off, behind somebody or to the side every once in a while...'. (Participant one).

The same participant also felt that they were perhaps able to give less effort to homework tasks due to the delivery medium. They felt more comfortable in their own environment, and so could make it seem as though they had engaged more than they actually had due to being able to think quicker:

'...because with feeling more comfortable I'd be able to kind of maybe convince myself a bit more easily and possibly to also come up with examples that I could sort of use to back up my side of things a bit more than is really fair. I could sort of do that more quickly because I'm in my environment where I'm comfortable and my brain's working a bit faster and stuff.' (Participant one).

Extended discussion

Unique contribution

Broadly, the unique contribution of this research is twofold: (1) it demonstrates the importance of the working alliance from the client's perspective as a facilitator of outcome in VCP, and (2) it gives preliminary insight into potentially unique processes which impact therapeutic tasks in VCP (consistent with the secondary aim of the study).

The first point reflects the findings from phase I, showing a reciprocal influence between working alliance and outcome, with further evidence suggesting therapists can inflate positive outcome by actively working on the working alliance. The second point is a little less straight forward. Phase II data would suggest that something unique happens when therapeutic processes are delivered via VCP. Both technological engagement and connection with the therapist were largely positive, but a much more polarised view was seen when the two were combined together.

A number of explanations are offered as to why this may be that case. It may be that by engaging in therapeutic activity it undermines the potentially equal relationship which has been established. Participants separately talked about reciprocity of conversation and feeling more empowered by accessing support in their own home as important in making a connection with the therapist. These two factors together suggest an equal relationship (where therapist and participant are equals, and no one is seen as more powerful). If this were the case, then initiating therapeutic processes may likely change this view – as when the therapist instigates an uncomfortable conversation or attempts to set homework tasks, they may be moving themselves into a more powerful position in the eyes of the participant, which could cause discomfort.

It may also be the case that certain participants simply felt uncomfortable having therapeutic conversations through the medium. The technology itself may be seen in a positive light, and the therapist seen as a nice person who could be connected with (hence the importance of reciprocity and shared

humour). However, this may not be enough for everyone to feel comfortable receiving therapeutic support in this way. It may be that the delivery method made the process seem less formal than face-to-face therapy, and perhaps in some way less professional – thus explaining the polarised views.

Clinical implications

This research highlights the importance of the working alliance as a change process in VCP, whilst making particular reference to the experience of working alliance from the client's perspective. Clinically, this highlights areas for practitioners of VCP to be aware of when delivering treatment. Important decisions pertaining to the environment VCP is accessed in, the reciprocity of conversation, working on the alliance, and working with the technology did become apparent.

As previously stated, this research benefited from external validity in that the VCP was offered wherever participants chose to take it. All participants interviewed chose to access VCP in the home, which raises numerous clinical implications which need to be addressed; not least of all the issue of confidentiality. Within face-to-face practice, every reasonable measure is taken to ensure that all conversations had in the therapy room are private and confidential between the parties present. Numerous participants in this study expressed concern as to housemates overhearing the content of sessions. Although it must be acknowledged that one participant really embraced this idea and seemed to actively encourage the housemates to be in some way involved in the VCP, all others mentioned being overheard as a concern.

Practically, very little can be done about this (as therapeutic support can be accessed in an uncontrolled environment through VCP). However, it may be thought of as the clinician's responsibility to acknowledge this prior to therapeutic work commencing, in the same way as a clinician would also talk about the boundaries of confidentiality prior to support being offered.

The notion of reciprocity is an interesting one. Although it is not suggested that this is a unique feature of VCP, it is worthy of further thought. Participants in this

study largely felt that reciprocity in conversation was important in helping them form a connection with their therapist – with personal disclosures from the therapist and a shared sense of humour seemingly facilitating this. This may be explained by the fact that VCP was accessed in participants' homes, which some talked about in terms of creating an increased sense of comfort. Combining these two points together suggests that participants perhaps feel more comfortable in their own home than a clinical building, thus increasing the sense of them being an equal with their therapist – as opposed to someone coming for face-to-face therapy and seemingly being more submissive to a therapist (attending the therapists' building, to sit in the therapists' room). Perhaps this increased sense of comfort and seeing themselves as equals with the therapist created an expectation that conversation will be less formal and more reciprocal in terms of disclosures. This is something for therapists to be aware of when conducting VCP, being prepared to adapt their communication style to a more informal approach and be prepared to make small personal disclosures, to the degree with which they feel comfortable.

The results obtained also show the importance of actively working on the working alliance during VCP. A reciprocal influence model was demonstrated between working alliance and outcome, with the individual therapist being seen potentially able to magnify the impact of previous session alliance on next session outcome. This suggests that actively focusing on the working alliance (ensuring agreement on task and goals, whilst maintaining a strong bond) may help facilitate change in VCP.

A final clinical implication to acknowledge pertains to technology problems. Whilst problems with the technology were reported fairly frequently, most participants were accepting of this. A belief appeared to exist that technology problems were inevitable, and that they were ok as long as they were dealt with as quickly as possible and that they did not impact the amount of therapeutic time the participant received. This practically means that VCP appointments may need to be given some leeway in terms of scheduling (rather than booking one immediately after the other) to ensure problems can be addressed and the time given back to the client.

Strengths and limitations

A strength of this research is that of external validity. As has been previously mentioned, most VCP research appears to still take place in a clinical building. Although this is desirable in terms of controlling variables, it does seem to negate one of the potential major benefits of VCP – that it can be accessed in the home. By allowing access of VCP in the home, the present study has been able to gain insight into potentially unique processes which happen when VCP is delivered in the home – such as an increased awareness for some participants as to how they present themselves, in terms of their clothing and what is visible through the computer monitor.

This study also benefitted from the use of slightly adapted thematic framework analysis. As the initial framework (developed through four purposely conducted interviews) was then applied to interview data sought for a separate purpose, this added external validity to the framework. The fact that it could be successfully applied to interview data sought with different research questions in mind provides evidence of external validity and potentially avoids a seemingly inherent flaw in typical framework analyses – that frameworks do not actually capture the construct of interest, but rather become frameworks to assess the interview schedule. That is to say that if a framework is built up and then applied to interviews conducted in the same way, it would be impossible to tell if the framework actually tapped in to the construct of interest, or whether it was simply a framework for assessing the particular interview schedule used.

With regards to limitations, it must be acknowledged that the lag analysis conducted within this study is potentially limited by its negating of the first session. The analysis for model II aims to analyse how the previous sessions working alliance impacts next session outcome. A shortcoming of analysing data in this way is that it negates the first session outcome. As the first reporting of the working alliance naturally takes place in session one, this can only be looked at in terms of its influence on session two outcome. This means session one outcome is naturally missed from the analysis. However, this was controlled for within the current study by the centring of SRS and ORS scores. As the

scores are group mean centred, they naturally take into account the first session score on each measure and allow this to influence the models.

Within any research, the notion of generalisability is a tricky one and worthy of consideration. The findings of this research are obviously limited by the sample from which the data were obtained. All participants in this research suffered from health anxiety, but generalisability is trickier given the choice afforded those randomised to intervention in the RCT (Morriss *et al.*, 2019). If a participant was randomised to receive intervention, they were offered the choice of either telephone or VCP support. By offering this choice, it seems likely that participants would choose the medium they felt offered them the best treatment. Inherently, this means that everyone in this research (despite some verbalising a lack of familiarity with the medium and some apprehension) likely held a preconceived positive view of VCP (at least compared to phone support) to help them overcome their difficulties. This means the results obtained here can realistically only be generalised to apply to people who show a preference to receive support via VCP rather than via telephone.

Although this point does seem to limit generalisability, it also seems to make the results more practically applicable to relevant policy. The recently published NHS long term plan (2019), for example, states videoconferencing to be offered *as part of* a menu of care. It does not state that video conferencing should be offered *instead of* other methods of support. This practically reflects the choice participants had in the RCT (Morriss *et al.*, 2019) – to receive VCP, or another method of support – meaning that the results obtained can reasonably be generalised to those who would likely opt for VCP within a menu of care.

Practically, the main differences seen between those who opted for VCP compared to an amalgamation of all participants in the treatment arm of the RCT (Morriss *et al.*, 2019) was that a higher portion of students accessed VCP and those who accessed VCP seemed to have generally a higher level of education. Although it can be argued that this is perhaps reflective of those who would opt for VCP in a menu of care (as stated above), it also has to be acknowledged that this perhaps demonstrates a cultural bias towards VCP for those who are perhaps more used to it (students using technology as part of

their study, and those higher educated who perhaps have more intuitive knowledge or use technology regularly for work or social purposes). This does mean caution needs to be exercised when attempting to generalise these results.

The other obvious limitation with regards to generalisability is that pertaining to the health anxiety experienced by all participants. Given that the Diagnostic and Statistical Manual of Mental Disorders, Fifth Edition (DSM-V; American Psychiatric Association, 2013) states avoidance of medical care for fear of what will be discovered as a potential symptom of health anxiety, this may mean the population for this research were more willing to access VCP. As VCP can be accessed in the home (more covertly) it may feel safer than attending a building for someone who is generally avoidant of appointments.

This study also provided an opportunity to develop a useable framework to understand the working alliance in VCP, which could potentially be used in future research. Unfortunately, during the *Developing a working analytical framework* stage of the thematic framework analysis, specific data pertaining to inter-rater reliability checks (such as number of disputes, consensus voting, and details of discussions) were not recorded in sufficient detail to allow this. Although this limitation has not directly impacted the outcomes from the present study, it is a noted limitation with regards to this study's potential implications for future research.

A final noteworthy point (though not necessarily a limitation), is that the present study is an extension of a wider trial (Morriss *et al.*, 2019). Whilst this has been positive in many ways (access to participants, years worth of data to analyse) it does mean that aspects of the research design were beyond my control. Practically this means decisions such as the sessional measures used could not be influenced or changed for the purposes of this study.

Recommendations for future research

This study provides preliminary insight into the working alliance as a change process in VCP and helps point the way for future research. Given the fact that

the face-to-face literature would suggest different aspects of the working alliance are more or less important in facilitating change (Webb *et al.*, 2011), it would be worthwhile investigating this within VCP. This was beyond the scope of this study given the measure of working alliance was the SRS. Despite the SRS being validated as an overall measure of working alliance, the individual constructs within the measure (*task*, *goals*, *bond*, and *overall*) have not been individually validated, which made breaking down the measure impossible.

Looking at the individual constructs of the working alliance may help to shed more light on several of the results seen in this study. The polarising views expressed by participants when therapeutic processes delivered through VCP are discussed seem to allude to *bond* being variable. Some participants mentioned the medium somehow limiting the connection they felt with the therapist, but did not talk about the medium impacting any construct seemingly related to *task* and *goals*. This is potentially very interesting as it alludes to the *bond* expressed by people receiving VCP as being variable across participants, whilst perhaps the other constructs are more stable. In order to better investigate this, further empirical research is needed to be conducted with a more robust measure of working alliance to enable accurate measurement of the individual constructs.

Capturing clinicians' views of the working alliance in VCP and examining its importance to outcome also seems worthy of future research. This seems important given the amalgamation of a number of findings. This research seemingly demonstrates that the client's view of the working alliance is important to outcome, with other research suggesting clinicians report lower VCP working alliance relative to clients (particularly in the early sessions; Simpson & Redi, 2014). Taken together this seems to suggest that in VCP, the working alliance as viewed by the clinician is less important when it comes to outcome, compared to the view of the client. Although this needs empirically testing, it may also explain results seen in a recent meta-analysis (Norwood *et al.*, 2018), finding equivalence of outcome between VCP and face-to-face psychotherapy but inferior working alliance. It may be that the clinician scores in this meta-analysis skewed the results slightly.

Further qualitative exploration of clients' views of VCP is also needed. The findings of this study eluded to a more reciprocal and conversational tone perhaps facilitating a good working alliance. However, polarised views of the working alliance through VCP were also expressed. This suggests potentially differing views between clients as to what VCP should look like, or paradoxical experience where less formal conversation is wished for, yet not facilitative of a good experience. More investigation is certainly needed to shed light on this.

Reflective section

This section of the thesis contains some of my thoughts and reflections from the research process. In very general terms, it feels like this has been an exercise in compromise and persistence. This is not intended as a negative reflection, more an acknowledgment of the practicalities of conducting research. The study contained within this thesis is quite different to the one which was originally proposed – the phenomenon of interest and the study design have remained the same, but the actual analyses have changed quite considerably. This was a necessary process to make the best of the data which were available, but has meant that (rather than using analyses I was broadly familiar with) I had to learn and use two forms of analysis I had never used before, and make them blend coherently – this is where persistence was key.

Conducting research as a secondary study using data from a big RCT (Morris *et al.*, 2019) has been both a blessing and a curse for this project. I am truly indebted for the help I received in gaining ethical approval as a major amendment to the main trial, but pleasing both a university team and a separate study team felt like an extra burden and something which didn't always marry up – passing my academic research proposal, before being told the same idea wouldn't work by the NIHR CLAHRC East Midlands team. In reality, this was true and very good advice, but felt very hard to take at the time.

Although it can perhaps be argued that conducting research which is primarily secondary data analysis can somehow fail to demonstrate an adequate breadth of research skills (as the need for data collection is negated), I feel that the way this research has been conducted has given me a more valuable insight into the

realities of academic research than I may otherwise have had. I feel this is the case due to effectively having to work to the standards of two separate bodies. On the one hand, as this thesis is submitted in partial fulfilment of the Doctorate of Clinical Psychology (DClinPsy), I have had to ensure that the Course are happy with the research I have produced, whilst at the same time ensuring that the NIHR CLAHRC East Midlands were also happy – as I was using data they have gathered as part of an ongoing trial, with my research being a major amendment added to their existing ethical approval.

Ensuring that both parties were happy presented numerous challenges. This became apparent quite early in the research process. When I initially had the idea for the research (finessed through meetings with supervisors) it was presented to course staff on the DClinPsy to determine its worth as a doctoral standard piece of research. From this presentation, the research was given favourable feedback and deemed to be adequate for the expectations of the course. I was then required to make the same presentation to the NIHR CLAHRC East Midlands team in order to gain access to their data. From this second presentation it became clear that the course and NIHR CLAHRC East Midlands had differing views, as NIHR CLAHRC East Midlands accepted the premise of my research as interesting but insisted the design as it was (conducting a path analysis) was not feasible, and the integration of the quantitative and qualitative aspects of the study not strong enough. On reflection, the feedback I received was fair (and making the suggested changes has strengthened my research immeasurably), though at the time I felt a strong sense of injustice for being told that a research idea which had already been primarily approved by the Course was not deemed to be of an adequate standard for NIHR CLAHRC East Midlands.

Despite my feelings of injustice, the disparity of the feedback I received gave me insight into the research process and led to two realisations: (1) all research conducted has inherent flaws, with the relative importance of these flaws being highly subjective, and (2) conducting research requires the appeasement of multiple stakeholders.

Maintaining these realisations has enabled me to 'step back' from my research and be more acknowledging of the limitations within it. This meant that I was better able to work between the course and NIHR CLAHRC East Midlands as I no longer expected consistency of feedback and no longer saw disparity as unjust. Whereas previously I expected that if one party approved an aspect of my research, the other should also approve it (as both parties should conform on some objective standard of research), I latterly accepted the subjectivity of feedback and was open to making changes to strengthen my research (even if it had already been deemed adequate by the other party). However, it seems important to note here that these realisations also gave me the confidence to defend my research (and the methodology used) if I felt that changes were unnecessary.

By accepting that all research is inherently flawed, and the relative importance of these flaws is subjective, I was able to see limitations of my own research as defensible in the right context. An example of this can be seen in the use of sessional recordings being sent out to participants as a memory jog, if they requested it. An acknowledged limitation in this research is the length of time between participants completing therapy and being interviewed. Practically, nothing could be done about how much time had passed, but there was a belief that consistency (either sending everyone recordings, or no one recordings), rather than choice, would be better. However, as I was able to view this feedback as more subjective, it empowered me to defend my own position (as stated in the *Discussion*) as I feel the rationale is strong.

As well as appeasing both parties in terms of the quality of the research, a further challenge was experienced in terms of working to two separate timeframes. The time frame given by the course was quite loose and able to be modified around the individual, however, the time frame from NIHR CLAHRC East Midlands was much more rigid. As I was added as a major amendment to research already underway, it meant I had to fit in with the stipulations and time restrictions already in place. The most notable of these was the timeframe given with regards to recruiting participants to gain further information. All participants – as part of consenting to the main trial – had agreed to be contacted for related

research projects up to 18 months after initial recruitment. Due to the main trial commencing in 2016, this limited the number of participants I could actively recruit. This presented the biggest quandary with regards to my research. Fewer participants than we had anticipated were able to be directly recruited by myself. This meant either accepting fewer participants could be recruited for phase II (thus reducing the strength of the research), or using interviews conducted for a separate research project (maintaining the desired number of participants, yet making phase II analysis more tricky whilst also increasing the amount of secondary data analysis and potentially undermining my own contribution to the research).

This was not an easy decision to make, as I did not want to undermine my own contribution to the research by using more secondary data, if I could help it. On the other hand, the analysis for phase II seemed much stronger with an adequate number of participants. Ultimately this decision was made by revisiting the aims of the research ((1) to investigate the working alliance as a potential change process in VCP, and (2) to gain an experiential understanding of the working alliance in VCP from the client's perspective). In order to gain an experiential understanding of the working alliance from a client's perspective, it stands to reason that participants' voices need to be heard (otherwise the experiential element of the research would be made by attempting to generalise experience from a sample too small to be expected to meet saturation).

Although it felt like this was the best decision for the quality of the research, it was a difficult decision for to me make due to the additional secondary analysis it entailed. This required reflection on my part as to what constitutes doctoral standard research. It could be argued that the research as I have presented it does not adequately demonstrate my competence in recruitment (though the initial recruitment for phase II was done by me). However, I would argue that I display doctoral standard research in way of: formulation of a relevant and current research question, planning and application of appropriate methodology and analysis, and critical interpretation of research findings with reference to relevant theory and empirical literature. Above and beyond this, I feel that by conducting secondary data analysis on data from a trial which was still

underway at the point of my joining the NIHR CLAHRC East Midlands team, I gained invaluable practical experience of what post-doctoral research looks like (and the processes behind it).

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APPENDICES

Appendix I: Link to Guide for Authors

The following link provides author guidelines for submission to the journal, Behaviour Research and Therapy. The journal article presented in this thesis was written according to these guidelines.

<https://www.elsevier.com/journals/behaviour-research-and-therapy/0005-7967/guide-for-authors>

Appendix II: Inclusion/exclusion criteria for Morriss *et al.* (2019) RCT

Inclusion:

Participants were approached if they:

- Were aged 18 years and over
- Had two or more unscheduled consultations with any healthcare provider in the last 12 months, not attributed to identified pathology
- Met criteria for clinical severity of health anxiety (a score of 18 or above on the HAI)
- Had sufficient understanding of English to engage with the intervention

Patients were excluded if they:

- Were at immediate risk of harm to themselves or others
- Had moderate to severe learning disability
- Had a serious mental or physical illness, including substance use disorder, to the extent that engagement in the intervention would not be possible, e.g. communication difficulties
- Were receiving ongoing investigations for a pathological medical condition
- Had received specialist mental health intervention within the previous six months

Appendix III: HRA Approval

From: PENISTONE, Helen (HEALTH RESEARCH AUTHORITY) <helen.penistone@nhs.net>
Sent: 17 January 2018 12:15
To: Sam Malins; Shireen Patel
Cc: Richard Morriss; sponsor@nottingham.ac.uk; Mitchell Shirley (NOTTINGHAMSHIRE HEALTHCARE NHS FOUNDATION TRUST)
Subject: RE: IRAS 150153. HRA Approval for the Amendment

Follow Up Flag: Follow up
Flag Status: Flagged

Dear Mr Malins,

Further to the below, I am pleased to confirm **HRA Approval** for the referenced amendment.

You should implement this amendment at NHS organisations in England, in line with the conditions outlined in your categorisation email.

Please contact hra.amendments@nhs.net for any queries relating to the assessment of this amendment.

Kind regards
Helen

Helen Penistone
Assessor
Health Research Authority
3rd Floor, Barlow House | 4 Minshull Street | Manchester | M1 3DZ
T. 0207 104 8010
E. helen.penistone@nhs.net
W. www.hra.nhs.uk

Sign up to receive our newsletter [HRA Latest](#).

From: nrescommittee.london-riverside@nhs.net [mailto:nrescommittee.london-riverside@nhs.net]
Sent: 17 December 2017 09:03
To: Sam.Malins@nottingham.ac.uk; Shireen.Patel@nottingham.ac.uk
Cc: richard.morriss@nottingham.ac.uk; sponsor@nottingham.ac.uk; shirley.mitchell@nottshc.nhs.uk
Subject: IRAS 150153. Amendment confirmation of REC Validation, categorisation and implementation information

Amendment Confirmation of REC Validation, Categorisation and Implementation Information

Dear Mr Malins

Thank you for submitting an amendment to your project. Please find attached a copy of the REC validation letter for the submitted amendment.

If you have participating NHS/HSC organisations in any other UK nations we will forward the information to the relevant national coordinating function(s).

Please note that you may only implement changes described in the amendment notice.

What Happens Next?

When available, please forward any other regulatory approvals that are expected for this amendment to hra.amendments@nhs.net. However, you do not need to forward the REC favourable opinion as we will be able to access this through our systems.

Information Specific to Participating NHS Organisations in England

1. You should now share your notice of amendment and, if applicable, amended documents, together with this email, with all participating NHS organisations in England. In doing so, you should include the [NHS R&D Office, LCRN](#) (where applicable) as well as the local research team. A template email to notify participating NHS organisations in England is provided on the [HRA website](#).
2. The participating NHS organisations in England should prepare to implement this amendment.
3. Your amendment will be reviewed by the REC, as per the attached letter. In parallel to this, an assessment against [HRA standards](#) will take place.
4. Once the REC Favourable Opinion is issued, any other regulatory approvals are in place and the HRA assessment has been successfully completed, you will receive an email confirming that your amendment has HRA Approval.
5. You may implement your amendment at all participating NHS organisations in England 35 calendar days from the day on which you provide the organisations with this email and your amended documents (or as soon as the participating NHS organisation confirm that you may implement, if sooner), so long as you have HRA Approval for your amendment by this date. **NHS organisations do not have to confirm they are happy with the amendment.** If HRA Approval is issued subsequent to this date, you may implement following HRA Approval.
6. You may not implement the amendment at any participating NHS organisations in England that requests additional time to assess, until it confirms that it has concluded its assessment.
7. You may not implement at any participating NHS organisation in England that declines to implement the amendment.

IRAS Project ID:	150153
Short Study Title:	Helping Urgent Care Users Cope with Distress about Physical Complaints
Date complete amendment submission received:	11 December 2017
Amendment No./ Sponsor Ref:	amendment 3 27.11.17
Amendment Date:	27 November 2017
Amendment Type:	Substantial
Outcome of HRA Assessment	HRA Approval for the amendment is pending. The HRA will separately confirm HRA Approval for the amendment by email.
Implementation date in NHS organisations in England	35 days from date amendment information together with this email, is supplied to participating organisations (provided HRA Approval for the amendment is in place and conditions above are met)
For NHS/HSC R&D Office information	

Amendment Category	A
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If you have any questions about the ethical review of this amendment, please do not hesitate to contact me.

If you have any questions relating to the wider HRA approval process, please direct these to hra.approval@nhs.net.

If you have any questions relating this amendment in one of the devolved administrations, please direct these to the relevant [national coordinating function](#).

Additional information on the management of amendments can be found in the [IRAS guidance](#).

Please do not hesitate to contact me if you require further information.

Kind regards

Tina Cavaliere

REC Manager

Health Research Authority

Ground Floor | Skipton House | 80 London Road | London | SE1 6LH

E.hra.amendments@nhs.net

[W. www.hra.nhs.uk](http://W.www.hra.nhs.uk)

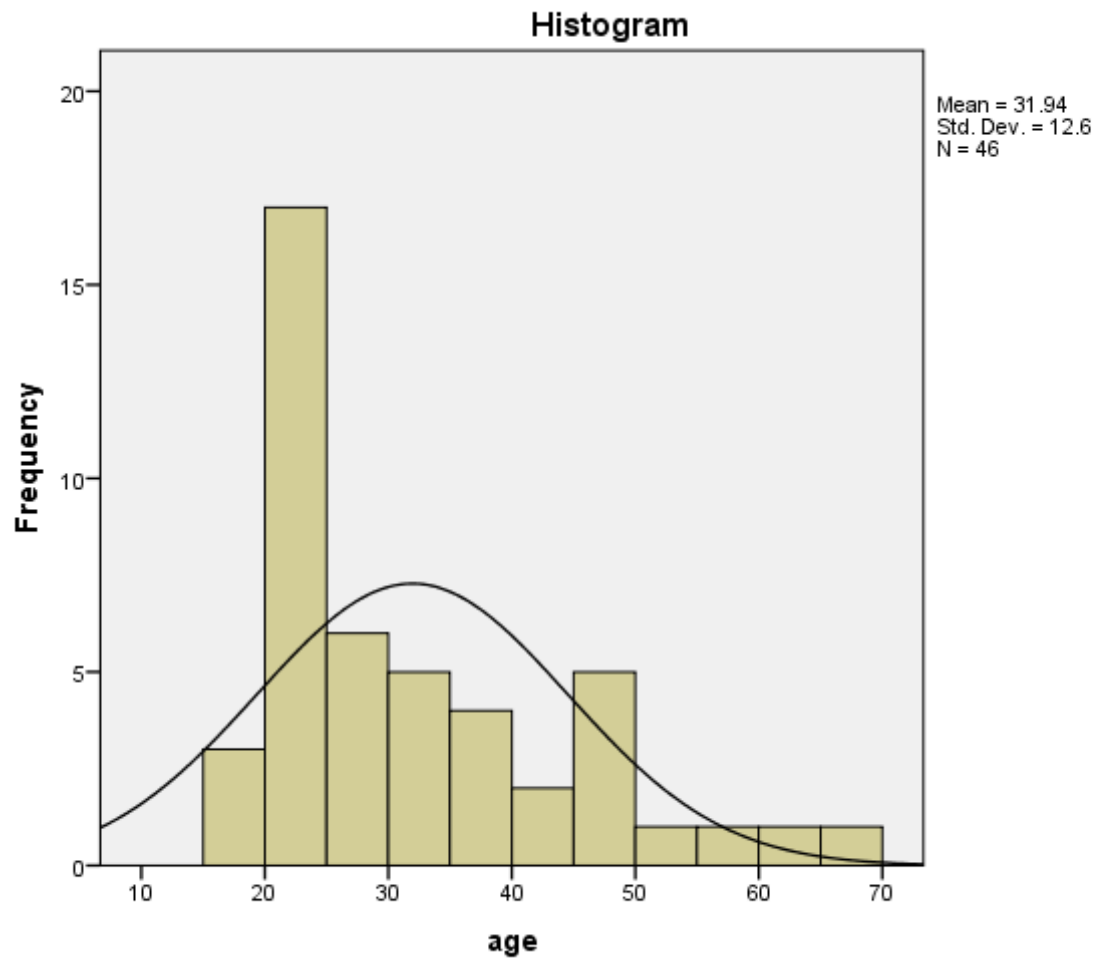
Sign up to receive our newsletter [HRA Latest](#)

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For more information and to find out how you can switch,
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Appendix IV: Sample distribution histogram



Appendix V: Participant Information Sheet

Collaboration for Leadership in
Applied Health Research and Care
East Midlands



Relationship Interview Participant Information Sheet (Version 3.0) Date 06.11.17

Helping Urgent Care Users Cope with Distress about Physical Complaints

Name of Researcher: Carl Norwood

We would like to invite you to take part in our research study

Contents

- Before you decide we would like you to understand why the research is being done and what it would involve for you.
- One of our team will go through the information sheet with you and answer any questions you have.
- Talk to others about the study if you wish.
- Ask us if there is anything that is not clear.

1 What is the purpose of the study?

Thank you for taking part in our study titled "Helping Urgent Care Users Cope with Distress about Physical Complaints." One of the aims of our study was to find out if providing Cognitive Behaviour Therapy (CBT) via video calling or over the telephone is acceptable and effective in improving physical and emotional health

We also want to find out :

How important is the relationship between therapist and patient? And how is this formed?

It is known from psychotherapy research that a strong relationship between patient and therapist is crucial to a successful psychotherapy outcome. However, most research has been done on face-to-face psychotherapy. Relatively little is known about the relationship between patient and therapist when the therapy is delivered remotely.

This study aims to find out how the relationship people form with their therapist affects how helpful remote psychotherapy is for patients. We also aim to find out how these relationships are formed when therapy is not delivered face-to-face.

1. What is the purpose of the study?
2. Why have I been invited?
3. Do I have to take part?
4. What will happen to me if I take part?
5. Expenses and payment
6. What are the possible disadvantages and risks of taking part?
7. What are the possible benefits of taking part?
8. What happens when the research study stops?
9. What if there is a problem?
10. Will my taking part in the study be kept confidential?
11. What will happen to me if I don't want to carry on with the study?
12. Involvement of the General Practitioner (GP)
13. What will happen to the results of the research study?
14. Who is organising and funding the research?
15. Who has reviewed the study?
16. Further information and contact details

If you have any questions about this study, please talk to Carl Norwood
(msxcn6@nottingham.ac.uk)

2 Why have I been invited?

We are asking some people who have taken part in the treatment arm of the study and provided consent to be interviewed again. This interview will allow you to talk about your relationship with your therapist, and how this impacted your therapeutic experience.

3 Do I have to take part?

It is up to you to decide whether or not to take part. If you do decide to take part you will be given this information sheet to keep and asked if you are happy to be interviewed. If you decide to take part you are still free to withdraw at any time and without giving a reason. This would not affect your legal rights.

4 What will happen to me if I take part?

If you agree to take part, a member of the study team will contact you to go through this Information Sheet with you, and answer any questions you may have.

You will be given the option of having a recording of one of your therapy sessions sent to you, to act as a memory aid - but you can choose not to listen back to a session if you prefer.

A time will then be arranged to meet or speak over the telephone that is convenient for you. With your consent we will use a digital recorder to record the conversation and transcribe what has been said so that we can review it afterwards. The interview should last approximately 60 minutes. You can stop at any time for a break or end the interview whenever you wish.

After the interview you can still withdraw your consent to the data being used up until one week after the interview.

5 Expenses and payments

To thank you for completing the interview and for your time, you will be given a £10 High Street Voucher at the end of this interview. You can also claim travel expenses for any visits incurred as a result of participation.

6 What are the possible disadvantages and risks of taking part?

You may have had a negative experience in your therapy sessions, so talking about it may be difficult. We would again stress that you are under no obligation to take part and that hearing about negative experiences is an important part of this research. Many people find talking about or sharing concerns in a safe and confidential way can be helpful.

7 What are the possible benefits of taking part?

We cannot promise the study will help you but the information we get from this study may help inform us of how the relationship between therapist and client is formed when therapy is delivered remotely. It is hoped this information will enable therapists to build better relationships with clients, and facilitate a better client experience for those receiving remote psychotherapy.

8 What happens when the research study stops?

Your care will not change as a result of taking part in the study. If you are interested in finding out the results of the study we can inform you of results when the study is completed.

9 What if there is a problem?

If you have a concern about any aspect of this study, you should ask to speak to the researchers or the Clinical Trials Manager who will do their best to answer your questions. Their contact details are given at the end of this information sheet. If you remain unhappy you may contact the Patient Advice Liaison Service (PALS) on 0800 015 3367 and if you wish to complain formally, you can do this by contacting NHS Complaints. Details can be obtained from your hospital.

10 Will my taking part be kept confidential?

- We will follow ethical and legal practice and all information about you will be handled in confidence at all times.
- If you join the study, data may also be looked at by authorised people to check that the study is being carried out correctly. All will have a duty of confidentiality to you as a research participant and we will do our best to meet this duty.
- All information which is collected about you during the course of the research will be kept **strictly confidential**, stored in a secure and locked office, and on a password protected database.
- The only time that we would break confidentiality is if we felt that we need to share information to protect your safety or the safety of others.
- Your personal data (address, telephone number) will be kept for twelve months after the end of the study so that we are able to contact you about the findings of the study and possible follow-up studies (unless you advise us that you do not wish to be contacted). All other data (research data) will be kept securely for seven years in accordance with the University of Nottingham regulations. After this time your data will be disposed of securely.

11 What will happen to me if I don't want to carry on with the study?

Your participation is voluntary and you are free to withdraw from the study at any time, without giving any reason, and without your legal rights being affected. If you decide to withdraw from the study, any information collected so far cannot be erased and this information may still be used in the project analysis.

12 Involvement of the General Practitioner/Family GP

If we become concerned for your safety or the safety of others, your GP may be contacted.

13 What will happen to the results of the research study?

Results of the research will be written up as part of a Doctoral thesis, which is due for submission in October 2018. Following this it is anticipated the results will be published in an academic journal. All participant information will be anonymised and although direct extracts from interviews may be used as part of this publication, participants will not be identified. All participants will also be sent a summary of the findings.

14 Who is organising and funding the research?

The main study (*"Helping Urgent Care Users Cope with Distress about Physical Complaints."*) is funded by National Institute for Health Research (NIHR) and matched funding from local partner organisations as part of a research and implementation centre called CLAHRC East Midlands, one of 13 such research centres in the country.

This study is funded by University of Nottingham as part of the Doctorate of Clinical Psychology course.

15 Who has reviewed the study?

All research in the NHS is looked at by an independent group of people called a Research Ethics Committee to protect your safety, rights, wellbeing and dignity. This study has been reviewed and given favourable opinion by National Research Ethics Service (NRES) London-Riverside Committee.

16. Further information and contact details

If you have any queries or would like to talk more about the study you can contact:

Study researchers

Carl Norwood
Email:
msxcn6@nottingham.ac.uk
Division of Psychiatry and
Applied Psychology
The University of Nottingham
Jubilee Campus
Wollaton Road
Nottingham
NG8 1BB

Clinical Trials Manager

Dr Catherine Kaylor-Hughes
Tel: 0115 8232478
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Nottingham
NG7 2TU

Chief Investigator

Professor Richard Morriss
Tel: 0115 8230427
CLAHRC EM
IMH Building
University of Nottingham
Nottingham
NG7 2TU

Appendix VI: Consent form



University of
Nottingham
UK | CHINA | MALAYSIA

Collaboration for Leadership in
Applied Health Research and Care
East Midlands



National Institute for
Health Research

TIC:

CONSENT FORM (Final version 1.0: date 29.11.17)

Title of Study: Helping Urgent Care Users Cope with Distress about Physical Complaints:
Relationship Interview study

IRAS Project ID: 14/LO/1102

Name of Researcher: Carl Norwood

Name of Participant:

Please initial box

1. I confirm that I have read and understand the information sheet version number 3 dated 06.11.17 for the above study and have had the opportunity to ask questions. ☐
2. I understand that my participation is voluntary and that I am free to withdraw at any time, without giving any reason, and without my medical care or legal rights being affected. I understand that should I withdraw then the information collected so far cannot be erased and that this information may still be used in the project analysis. ☐
3. I understand that relevant sections of my medical notes and data collected in the study may be looked at by authorised individuals from the University of Nottingham, the research group and regulatory authorities where it is relevant to my taking part in this study. I give permission for these individuals to have access to these records and to collect, store, analyse and publish information obtained from my participation in this study. I understand that my personal details will be kept confidential. ☐
4. I understand that the interview will be recorded and that anonymous direct quotes from the interview may be used in the study reports. ☐
5. I agree to take part in the above study. ☐

Name of Participant

Date

Signature

Name of Person taking consent

Date

Signature

2 copies: 1 for participant, 1 for the project notes

Appendix VII: Interview schedule

Topic Guide

All questions are subject to change, which will be informed by quantitative analysis of data prior to interview recruitment, and initial qualitative analysis of early interview data.

1. *General questions to build rapport and increase client comfort*
 - a. Have you previously had therapy in the past?
 - b. (if so) How did this experience compare?
 - c. Tell me about the therapy you received?
2. *Questioned aimed at eliciting whether the participants found the therapy helpful/beneficial, regardless of quantified outcome*
 - a. Did you have any expectations beforehand?
 - b. Did the therapy live up to these expectations?
 - c. What were your experiences of the therapy you received?
3. *Questions aimed at eliciting whether the participant was able to form a working alliance with their therapist, and how they viewed it*
 - a. Tell me about the relationship you had with your therapist?
 - b. How did you get along with one another?
4. *Questions aimed at eliciting the specific factors [if any] which aided the forming of a working alliance*
 - a. Was there anything about the therapy you had which made it **easier** to form a relationship with your therapist?
 - b. How did these things make forming a relationship **easier**?
5. *Questions aimed at eliciting the specific factors [if any] which hindered the forming of a working alliance*
 - a. Was there anything about the therapy you had which made it **harder** to form a relationship with your therapist?
 - b. How did these things make forming a relationship more **difficult**?
6. *Questions aimed at eliciting the specific factors [if any] which impacted the forming of a working alliance, which may be unique to videoconferencing*
 - a. How do you feel that your relationship with your therapist was influenced by the use of videoconferencing?
 - b. In both a positive and negative way...
7. *Questions aimed at eliciting the perceived importance of the working alliance for the individual (cues such as 'can you tell more about that' can be used for one word or insufficiently detailed answers)*
 - a. How important was this relationship for you during your time in therapy?
 - b. Was this in line with the expectations you had before starting treatment?

8. *Questions aimed at eliciting the perceived impact of the working alliance for the individual*
 - a. How do you feel this relationship impacted (either positively or negatively) on how much you got out of therapy?
 - b. What would you change about your relationship with your therapist, if you were able?
9. *Questions to give an opportunity for the participant to say anything else they feel is important, with the aim of helping them feel listened to and priming for the end of the interview*
 - a. Is there anything else you would like to tell me?

Appendix VIII: Transcriber confidentiality agreement

Data Protection Act 1998 Confidentiality Agreement for Transcribers

This Agreement is made as of 02/08/2018 (Date), by and between the University of Nottingham, with principal offices at Jubilee Campus, Wollaton Rd, Nottingham NG8 1BB (the University) and Typing Services with principal offices at 59 Swallow Drive, Bingham, Nottingham, NG13 8QA (the Transcriber).

The Transcriber has been appointed by the University of Nottingham to transcribe audiotapes/audio files and documentation resulting from research undertaken by Carl Norwood which will involve the disclosure to the Transcriber of personal data held by the University. Accordingly the Transcriber is required to deal with any such information in accordance with the terms of this Agreement and the Data Protection Act 1998.

The Transcriber undertakes to respect and preserve the confidentiality of personal data. Accordingly, for an indefinite period after the date of this Agreement the Contractor shall:

- maintain the personal data in strict confidence and shall not disclose any of the personal data to any third party;
- restrict access to employees, agents or sub-contractors who need such access for the purposes of the contract (and then only if the employee, agent or subcontractor is bound by conditions of confidentiality no less strict than those set out in this agreement, which the Transcriber shall enforce at the University's request);
- ensure that its employees, agents or sub-contractors are aware of and comply with the Data Protection Act 1998; and
- not authorise any sub-contractor to have access to the personal data without obtaining the University's prior written consent to the appointment of such sub-contractor and entering into a written agreement with the subcontractor including conditions of confidentiality no less strict than those set out in this agreement, which the Transcriber shall enforce at the University's request.

The Transcriber agrees to indemnify and keep indemnified and defend at its own expense the University against all costs, claims, damages or expenses incurred by the University or for which the University may become liable due to any failure by the Transcriber, its employees, agents or sub-contractors to comply with any of its obligations under this Agreement.

For the avoidance of doubt, the confidentiality imposed on the Transcriber by this Agreement shall continue in full force and effect after the expiry or termination of any contract to supply services.

The restrictions contained in this Agreement shall cease to apply to any information which may come into the public domain otherwise than through unauthorised disclosure by the Transcriber.

This Agreement shall be governed by and construed in accordance with the laws of England and the parties hereby submit to the exclusive jurisdiction of the English courts.

Signed for and on behalf of Typing Services

Signed:  Name: N. Douglas
Title: Owner Date: 2/8/18

Signed for and on behalf of the University of Nottingham

Signed:  Name: Carl Norwood
Title: Trainee Clinical Psychologist Date: 02/08/18

Appendix IX: Coded extracts

Interview one

VCP 'on my terms' Calm from the beginning	P:	...[Laughing] therapies as a big deal.	Felt more in control which meant less anxiety and increased engagement
	I:	[Laughs] Oh really.	
	P:	Yeah but it did, <u>it was easier to sort of feel like it was a bit more on my terms and to be calm from the beginning rather than calm down when you was there.</u>	
Time needed to relax into F2F VCP steady throughout	I:	Right, so it felt like when you were actually attending the counselling, as in going to see someone that was actually maybe increasing the discomfort a little bit and you had to relax into it first.	Have to settle in to F2F due to ? submitting more to the unfamiliar?
	P:	Yeah at first, I mean sort of, <u>when you're about five, ten minutes in and you're focused on it it's fine but it's kind of that when you're first going in and when you're waiting for five or ten minutes for it to start and that's kind of the difficult bit whereas with the online stuff it's a bit more steady throughout.</u>	

Interview two

A while to warm to therapist previously Quicker relationship in VCP	P:	<u>I do recall it taking me quite some time to kind of warm up to my therapist which was kind of different from this time. I felt that the relationship was built a little bit quicker but I think that might have something to do with how the medium that you're using works, so like when you're face to face there's all those kinds of background things going on but like something like, well you know how to use the internet and like you can post things that you'd probably not say to other people in real life...</u>	The medium makes it easier to interact to begin with, perhaps a reduced interpersonal pressure due to less background noise?
	I:	[Laughs] Yeah, yeah.	
VCP reduces interaction barriers	P:	<u>...sort of thing, right, so even though you're looking at the other person, you knew there was a real other person on the other side of the thing, it's almost kind of like barriers that you would normally encounter face to face sort of interactions but reduced.</u>	

Interview three

Easier to access VCP	I:	So the therapy that you had this time round, the video conferencing, reading in between the lines there, did this feel easier to access?	Able to access VCP more freely which means less pressure on time.
	P:	Yeah definitely, it didn't really, <u>the only time it was difficult was during exam season when I was working in the library, yeah, you'd basically lose your seat if you get up from it and I didn't want to lose my seat, so that was the only time it was difficult</u> but I've since realised I could've got an individual study room.	
Video element increases awkwardness Dislike VC Previous VC experience	I:	Oh right [Laughs], never mind, so did you have any expectations about the therapy that you received via video conferencing beforehand because obviously it's quite, I guess, an unusual way to receive therapy isn't it at the moment.	Previous VC experience but a known dislike for medium.
	P:	Yeah, I mean, I was bit, I was, <u>nervous probably isn't the right word but I'm an awkward enough person as it is without being over a video conferencing,</u> [Laughs] <u>I do it a lot for work and I don't really like it generally, yeah, I prefer to have a few minutes to think about my answer without looking like I'm just staring off into space.</u>	

Interview four

Different person	I:	So it sounds like it was a really positive experience for you.	Able to look back at sessions and review progress and strategies
	P:	<u>Very positive and I was watching the video, I was just like this is a completely different person, it was, yeah.</u>	
Previous CBT knowledge Different in practice	I:	Wow, and although I know you said that you went in with kind of no expectations at all but that did surprise you actually how much you got out of it?	A difference exists between knowing the techniques, and actually having the therapy.
	P:	<u>Yeah, because I mean I didn't really know I was going to have CBT when I initially like, you know, signed up at the GP's, that was well before I heard from the study people, so I did psychology at A level and I'd learnt about CBT and you know you learn all these things but when you actually do it you see just how, you know, powerful it is and how much it actually is like a really good way of, a really good approach...</u>	

Appendix X: Working analytical framework

Code		Description
1	Perceived control	
		Perception of the clients' own sense of control over VCP as a whole, or individual aspects of the experience.
A	Self-presentation	Reference to the clients' own appearance, in a physical sense; mention of clothes, hair, make-up.
B	Environment	The area the client chose to access VCP. Its suitability and feeling of appropriateness, comfort, and safety.
2	Technology	
		Reference made to the technology required for VCP, whether in terms of hardware (laptop, camera, etc.) or software (specific programmes).
A	Problems	Technology problems before, during, or retrieving VCP related material. May also include how they were overcome.
B	Expectations & familiarity	Expectations of the technology and its ability to run as required without significant delay or interruption. Expectations of how the medium and technology will feel to use. Prior experience with videoconferencing or similar medium.
C	Experience	Experience of the VCP received in terms of the technology used.
3	Physical cues	
		The recognition and readability of the visual cues available through VCP.
A	Eye contact, facial cues and tone of voice	Eye contact (or no) between therapist and client as part of VCP. Awareness of facial cues and tone of voice either given or received during the VCP appointments.
B	Absence of the body	Awareness of a lack of body within the field of view presented.
C	Readability	The ability to read physical cues in VCP.
4	Therapist characteristics	
		Features that the client attributed as part of the therapist's personality and interpersonal ability which impacted the relationship.
A	Demographics	Set characteristics of the therapists' (such as age and sex).
B	Interpersonal skills	The therapists' ability to interact well and express themselves (such as: expression of warmth, genuine interest).
C	Credentials, experience, skills, and professionalism	Perceptions of the therapist, and their skill and professionalism, either built up throughout VCP or as an expectation going into the VCP.
5	Speed of processes	
		The speed with which a personal or professional connection was built between therapist and client, and the speed of the process of therapy.
6	Interpersonal factors	
		Factors mentioned which are specific to the relationship built between therapist and client. These are not qualities which can be attributed to either the client or therapist, but something which takes place between them.
A	Open and honest	The feel of the relationship in terms of how open and honest it enabled the client to be.
B	Shared understanding	The use of shared language, the therapist reflecting back what's previously been said, and working towards a shared goal.
C	Expectations & importance	The expectations regarding the relationship, and its importance before, during, and after VCP.

<i>D</i>	Reciprocity & equity	The relationship being seen as reciprocated and/or equal. Reference made to therapist sharing personal information, or give-and-take in the relationship.
7	VCP experience	
	Reference made to the overall experience of receiving VCP as a therapeutic entity.	
<i>A</i>	Freedom	Expression of differing levels of autonomy and choice afforded the client.
<i>B</i>	Comfort	Varying levels of comfort expressed by the client – whether physical, interpersonal, or with the overall feel.
<i>C</i>	Engagement	Varying descriptions of engagement with the process of therapy, either during appointments and/or on between session tasks.
<i>D</i>	Beliefs and expectations	Any preconceived ideas about how useful the intervention will be. This is distinct from Technology: Expectations as it pertains to the therapy as a whole, rather than the delivery medium.
<i>E</i>	Therapy outcome	The actual felt outcome from therapy (positive or negative). Practical changes made, changes in thinking or understanding.
8	Convenience	
	How convenient (or otherwise) VCP was to access for the individual; in terms of time, travel, cost, or any other factor.	
9	Distance/closeness	
	Any reference made to the distance involved in VCP. This could be reference to a physical distance, interpersonal, or metaphorical distance/barrier.	
<i>A</i>	Physical	A felt physical distance between client and therapist, or the opposite (a feeling of closeness and a lack of physical distance).
<i>B</i>	Interpersonal	A felt distance in the interpersonal connection or a feeling of closeness.
10	Personal factors	
	Factors pertaining to the clients' personality which seemingly impact VCP (examples include openness to communicate, nervousness, ease in social situations).	
11	Previous therapy	
	Mention of previous therapy received, before undertaking VCP.	
<i>A</i>	Experience	Mentions of the experience of having therapy in the past. In terms of overall feel, outcome, benefit, etc.
<i>B</i>	Relationship	Specific mentions of the relationship formed with therapists in previously received therapy.

Appendix XI: Indexed data extracts

Interview 8

	T:	So there was a little bit of an issue with it taking a long time, is that right?
2C / 7C	P:	No. I think in general the time that we had... I thought that it might take longer but for me it worked fine. As for the content of the sessions, they were designed for my problem so I cannot complain. The only thing that I had a complaint is maybe it might be easier to have a potential therapy to go in person and chat with the therapist. That was maybe one of the things that might be... well I'm happy because I can communicate and I can have an opinion but maybe seeing the therapist in person may be more different. When you are with someone through the screen, as I'm watching you now, I know that you're there but I don't know, just to have someone in person, it's a completely... it makes you feel different. Just to break the glass, to say like that maybe.
9A		
	T:	Can you explain a bit about what it was about the experience of not being face to face, in person that was potentially unhelpful?

Interview 11

2C	P:	Yeah, I think it was when we were doing the – there was a little – I can't remember what she called it, when it came up on the screen and we were looking at health anxiety, how it makes you feel, you know, and things like that and then the calm me and comparing the two. So I think that kind of activity, you know, does help me seeing it written down, you know, is always a good thing, especially if I'm encouraged to obviously lead on it, which looking back on it I wish I'd done it a bit more but, at the time, I was obviously anxious and it's trying to get – [NB] was clearly trying to get me to do as much as I could at the time. But that kind of activity I think really does help.
6D		
	T:	Sp something important about kind of seeing it written down and something important about you leading it as much as you could.
11A	P:	Yeah, I think so. Rather than, you know, I've had other therapy before where it's almost, not forced on you, but you don't feel as in control with it but with the whole of these sessions really I felt like I'd been encouraged to think positively and draw out the positives in things and make – almost like try and change my mindset, you know, and I think that has happened and I do feel like I have more control over things so, yeah, I think it's that kind of thing that can really encourage like a positive change in somebody.
7A		

Appendix XII: Charting spreadsheet extracts

Charting for the category 'Speed of processes'

	<i>Speed of processes</i>
01093KB (SM)	Calm from the beginning of therapy, no need to relax into it which built an honest relationship quicker than F2F (p. 2, 6, 8, 10). Feels like my brain works quicker due to feeling more relaxed (p. 13).
01095 KO (SM)	Relationship built quicker than F2F, aided by 'feeling' medium (p. 1, 6, 11, & 15). Quicker to accept confidentially due to use of online medium (p. 2).
01096 LM (PB)	Settled in quicker and got to discussing things quicker, due to not having to travel (p. 7-8). No long pauses through medium, so encouraged to talk more (p. 8).
01108 AD (PB)	Opened up 'something quite deep' in the first session (p. 3).
01017 SY (SM) - SM	First few sessions were tentative, but seemed quick after that (p. 14).
01037 LC (SM) - SM	Not coded in this transcript.
01062 NE (SM) - SM	The use of computers made it difficult to open up to begin with due to reluctance to engage with the medium (p. 7).
01070 IG-R (MM) - SM	Not coded within this transcript.
01071 AM-J (SM) - SM	Not coded within this transcript.
03002 LC (SM) - SM	Don't count the first few sessions as trying to get to grips with software (p. 5).
03009 CH (NB) - SM	Not coded within this transcript.
06001 SM (SM) - SM	Not coded within this transcript.

Extract of charting for the category 'Interpersonal factors'

	<i>Open and honest</i>	<i>Shared understanding</i>	<i>Expectations & importance</i>	<i>Reciprocity & equity</i>
01093KB (SM)	Quick relationship formation enabled a more honest interaction (p.6). Brining up documents enabled checking and honest communication (p. 10).	Felt like participant and therapist shared the same values and were working toward the same goals, which were described using the participants language (p. 4). Participant uses unique language and needed to feel understood by their therapist (p. 8), with the therapist also using this language or pre-empting what the participant will say (p. 9, 10). An acknowledgment that for some the medium may hinder development of a shared language (p. 11).	Need to be able to click with therapists (p. 8). A recognition of the importance of working relationships in other walks of life too, and a need to have a good relationship in therapy (p. 9). Having a good relationship helped sharing of things which otherwise may not have been said, and sped up the work done (p. 12).	Not coded within this transcript.
01095 KO (SM)	Working through problems with homework to facilitate a good alliance (p. 7). Notes which were entered during the sessions were visible to both (p. 8) and sent out to participant (p. 9). The relationship felt open (p. 13).	Shared understanding facilitated through task engagement and therapist reflecting back previous points made by the participant (p. 10-11).	Expectation that you need to feel comfortable with the therapist to make any kind of progress - based on previous therapy (p. 15).	Examples used in therapeutic conversation of therapists own life, which aid the relationship in later sessions (p. 10-11). First session 'more giving and transmitting' (p. 12). Needs to be reciprocal relationship in order to follow advice, even if the advice itself is good (p. 13-14). Openness about tech problems led to a shared joke (p. 17-18).
01096 LM (PB)	The relationship felt professional rather than personal which meant the client didn't feel the need to hold anything back (p. 4).	Felt a shared understanding of a particular health problem due the therapist being female (p. 5).	Relationship perceived as important as a way of checking that the client's responses were ok for the therapist, but didn't expect to build a good relationship over VC (p. 11). Relationship made it more likely that advice would be followed (p. 12).	Relationship described as more professional than personal, with the client giving lots of personal information but getting nothing back (p. 4).

Appendix XIII: Theme interpretation

Initial category	Initial code	Study findings	Synthesised core theme
Technology	Problems	Half the participants (6/12) actively discussed technology problems, with a varying experience of them. For some people engagement was hindered by technology problems and resulted in feeling of missing out on a better experience, whereas others accepted technology problems as an inevitable part of accessing therapy in this was and willingly made adjustments to better engage.	Engagement with the medium Participants expressed varying levels of comfort and engagement with the medium. For most participants the medium was seen as something which could increase comfort and engagement. This seemed unrelated to previous VC experience and was something separate from the therapeutic processes. Levels of engagement with the medium seemed largely unrelated to the therapist.
	Expectations & familiarity	Almost half (5/12) of the participants reported familiarity with the delivery medium with varying expectations built from that. Some expressed low expectations due to not liking the medium, with others feeling it offered more anonymity and was a more 'freeing' experience.	
	Experience	Over half (7/12) commented positively about features unique to the medium such as interactive documents, whilst others (2/12) struggled to access these unique features or felt they were less helpful than traditionally delivered interventions.	
VCP experience	Freedom	One third of participants (4/12) felt VCP afforded them more freedom than in F2F appointments in terms of out of session constructs (such as time of appointment, where the appointment was accessed). One third of participants (4/12) also felt sessions were individually tailored and not necessarily adhering to a strict session plan (this was partly facilitated by VCP allowing more freedom of communication), though one participant felt the opposite – that sessions were too ridged.	
	Comfort	Half (6/12) felt comfortable and as if the medium facilitated communication. The reason for this varied greatly; an increased sense of confidentiality, a belief the therapist is less likely to become upset as they are more distant, reducing inhibitions. However, two participants felt uncomfortable with VC, with one stating they only continued due to the commitment they had made.	
	Engagement	Most (10/12) participants felt able to engage in sessions and spoke positively about the in-session tasks or interactions.	
	Beliefs and expectations	Half the participants (6/12) reported no expectations going in to therapy, with a further four participants having negative expectations due to previous therapy engagement or a disliking of the medium. Two participants had positive expectations, including one wanting a 'miracle cure'.	
Convenience		Almost half (5/12) of the participants commented on the added convenience of VCP. This was in terms of a negated need to travel, remaining in the home, and freedom over time of appointments.	
Perceived control	Self-presentation	A quarter of participants (3/12) commented on their self-presentation, but each for unique reasons. One reflecting that they were unaware of their own image whilst engaging in VCP, one feeling more freedom of choice regarding self-presentation in VCP versus F2F, and one acknowledging a consciousness of the way they presenting themselves physically, but feeling this didn't impact the 'key bits' of themselves which they showed the therapist.	
	Environment	Half (6/12) the participants acknowledged freedom in their decision as to where they accessed VCP. All six accessed in the home and felt positive about this, with one feeling unable the leave the home at the time of access and so very appreciative of home-based access. A quarter (3/12) of participants acknowledged unintended difficulties of home access, such as being overheard (2/12) or presenting more yourself than you intended (1/12). However, one participant was unconcerned with being overheard and openly discussed therapy with housemates and felt this helped their relationship.	
Therapist characteristics	Demographics	Although not recurrent, two participants strongly felt that the sex of the therapist enabled them to create an easier connection.	Connection with the therapist

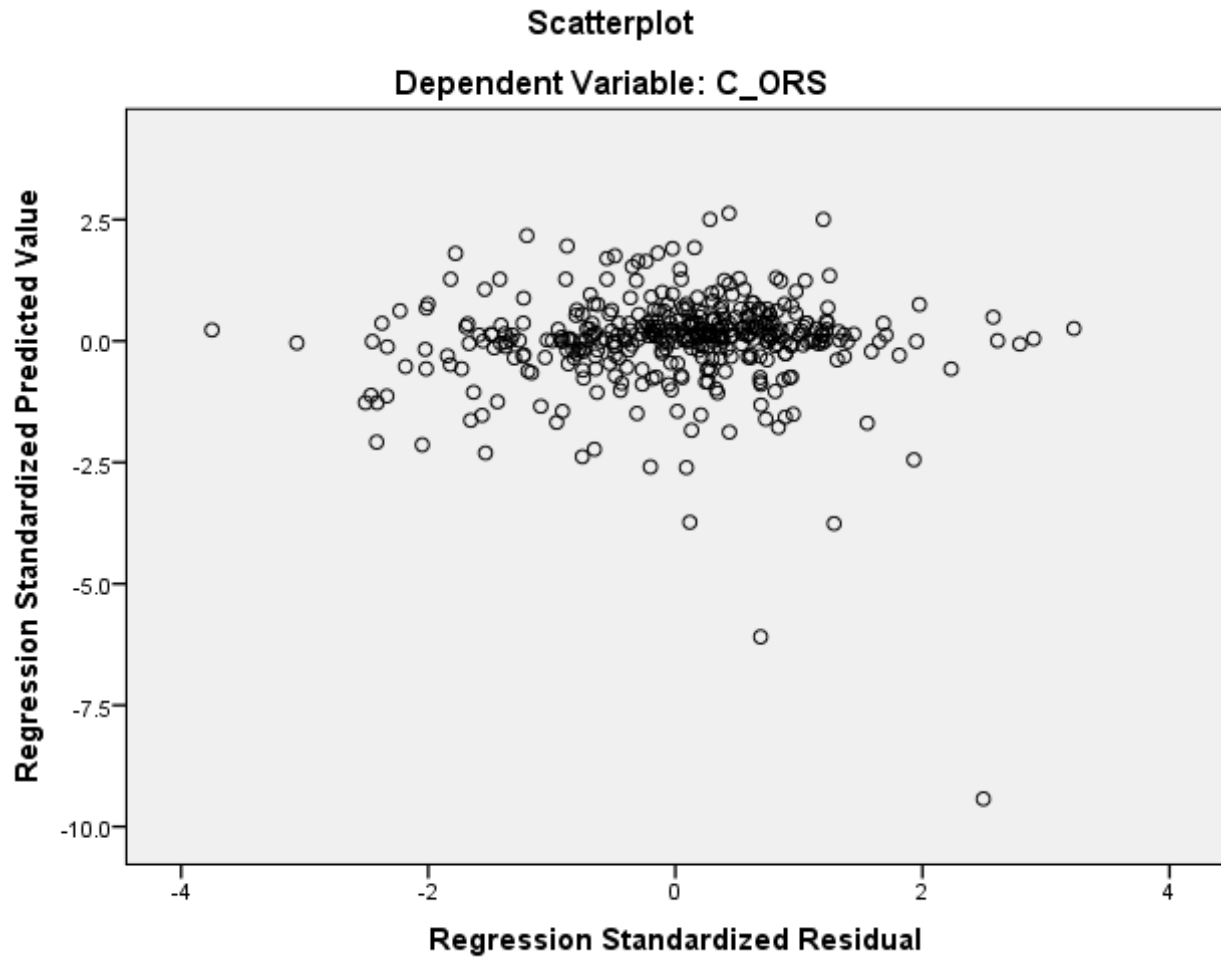
	Interpersonal skills	Most (11/12) participants identified that aspects of the therapists' interpersonal skills made it easier to communicate with them. These include feeling listened to, a feeling of warmth and understanding, and having a shared sense of humour. One participant did feel that initially they were not understood by their therapist, but that this improved as therapy progressed.	Most participants reported a positive connection with their therapist. This connection seemed to be influenced by the perceived skill and professionalism of the therapist, participant characteristics, and interpersonal factors.
	Credentials, experience, skills, and professionalism	Most (10/12) participants acknowledged the skills and professionalism of the therapist as helpful. This included allowing participants to go off on tangents but gently guide them back to topic, sharing knowledge, and not rigidly sticking to times or schedules. One participant felt that the relationship remained professional and lacked a personal quality, but acknowledged this helped with therapy. However, one participant reported feeling as though the therapist pitched explanations at too high a level for their understanding and stuck too rigidly to session plans.	
	Open and honest	Most (10/12) participants talked about being able to open up and be honest with the therapist. Varying aspects of the therapist seemed to facilitate this. For one it was the therapist maintaining a professional distance and not trying to engage in a personal relationship. For others it was facilitated by the medium, and the open and honest sharing of notes and documents. One participant talked about the therapist being open regarding potential barriers to therapy.	Those who mentioned having therapy in the past, talked about VCP positively, with those making direct relational comparisons with face-to-face therapy feeling that the medium did not hinder the connection.
	Shared understanding	Most (10/12) participants felt that a shared understanding was in some way reached and facilitated by the therapist. This took many forms and related to shared goals to work towards, a shared language for understanding difficulties, and a collaboratively built plan to reach the goals. One participant, however, felt that initially no shared understanding existed and that the therapist didn't understand what they were saying and that they could not understand the therapist.	
Interpersonal factors	Expectations & importance	Three quarters (9/12) experienced the relationship with the therapist as important to the therapy experience. Within this, one participant explicitly stated that they wanted to engage in between session work to at least partly show the therapist they can do it and to not let them down. Although acknowledging the relationship was important for the therapy experience, one participant used the relationship to gage their engagement and responses to the therapist – they felt that if they were engaging well the therapist would be happy and so the participant would feel more connected with them, whereas if the participant was engaging poorly the inverse would be true.	
	Reciprocity & equity	Over half (7/12) of the participants felt like the relationship they built was reciprocal. This was demonstrated in different ways: the therapist using themselves in therapeutic examples and explanations, sharing jokes, taking the participants' experiences seriously, and regularly checking in with them. However, two participants felt the relationship was not reciprocal; one felt it was more one-sided, with the participant giving lots of personal information but getting nothing back, whereas one felt the relationship just didn't work and that the participant and therapist wanted different things.	
Personal factors		Three quarters (9/12) of participants acknowledged that their own personal circumstances or characteristics influenced their interactions in therapy. Two felt this was in a positive way, with the other seven feeling personal factors had the potential to hinder the experience. This mostly related to feeling unable to talk about things, or having a concurrent negative experience outside of therapy.	
Previous therapy	Experience	Over one third (5/12) of participants talked about VCP in a positive light in relation to previous therapy. They talked about feeling more comfortable in VCP and having a sense of more control.	
	Relationship	Although not recurrent, two participants felt that the relationship in VCP was just as good, or better, than their relationships in previous therapy.	
Physical cues	Eye contact, facial cues and tone of voice	Although not recurrent, two participants explicitly mentioned the presence of facial cues and tone of voice, with one stating the medium seemed to necessitate more eye contact, which could be uncomfortable.	Working through the medium Participants were largely aware of the medium, which had a varying

	Absence of the body	One quarter (3/12) of participants mentioned noticing the absence of a body from their field of view. Two mentioned this in terms of it perhaps decreasing the ability for the therapist to transmit understanding in body language, but one mentioned it in terms of it empowering them and their self-presentation – as only the top half of their body would be seen, that is all they had to worry about presenting.	impact on their therapy experience – some people liking the feeling it created, and others feeling they were in some way missing out on a better experience. People felt that the medium increased certain therapeutic process, but this was always talked about in the context of maintaining an awareness that the medium existed.
	Readability	Almost half (5/12) of the participants made comment on the readability of physical cues. Two mentioned this in negative terms, stating that a reduced field of vision made physical cues harder to read and placed more reliance of facial cues. However, the other three stated cues could be read, with one placing an extra emphasis on being able to read therapist emotion in their eyes.	
Speed of processes		Over half (7/12) of the participants commented on VC changing the speed of the interaction processes. Four specifically mentioned that the VC facilitated quicker engagement, one felt VC initially made interactions 'tentative' but facilitated communication in the long run, whilst two felt the first few sessions were slower due to the medium – with one participant stating they don't count the first few sessions due to this.	
Distance / closeness	Physical	Almost half (5/12) of the participants commented on the physical distance between themselves and the therapist. This was experienced in negative terms for a third of people (4/12), with two expressing a desire to meet the therapist, and wanting to 'break the glass' to get closer to the therapist. However, one person spoke of the distance in positive terms, feeling that it helped facilitate conversation.	This seems unrelated to the participants actual comfort with the medium in general terms (as discussed in synthesised core theme <i>Engagement with the medium</i>), but is more to do with therapeutic processes facilitated by the medium.
	Interpersonal	One third of participants (4/12) mentioned the interpersonal distance or closeness. Two of the participants spoke of this phenomenon in positive terms, with one feeling it is better to talk to a stranger, and one feeling a slight interpersonal distance helped them feel safe. The remaining two seemed to comment on the interpersonal distance in neutral terms. One feeling that it feels just like talking with anyone through a different medium, and the other feeling they maintained a professional relationship with their therapist which was 'confined to sessions'	

Note. The code *Therapy outcome* from the initial framework was excluded from the interpretation as it was noted to be unrelated to the present studies aims – describing the outcome of therapy from the clients' perspective in terms of changes made, but with no link to either the medium or the therapist.

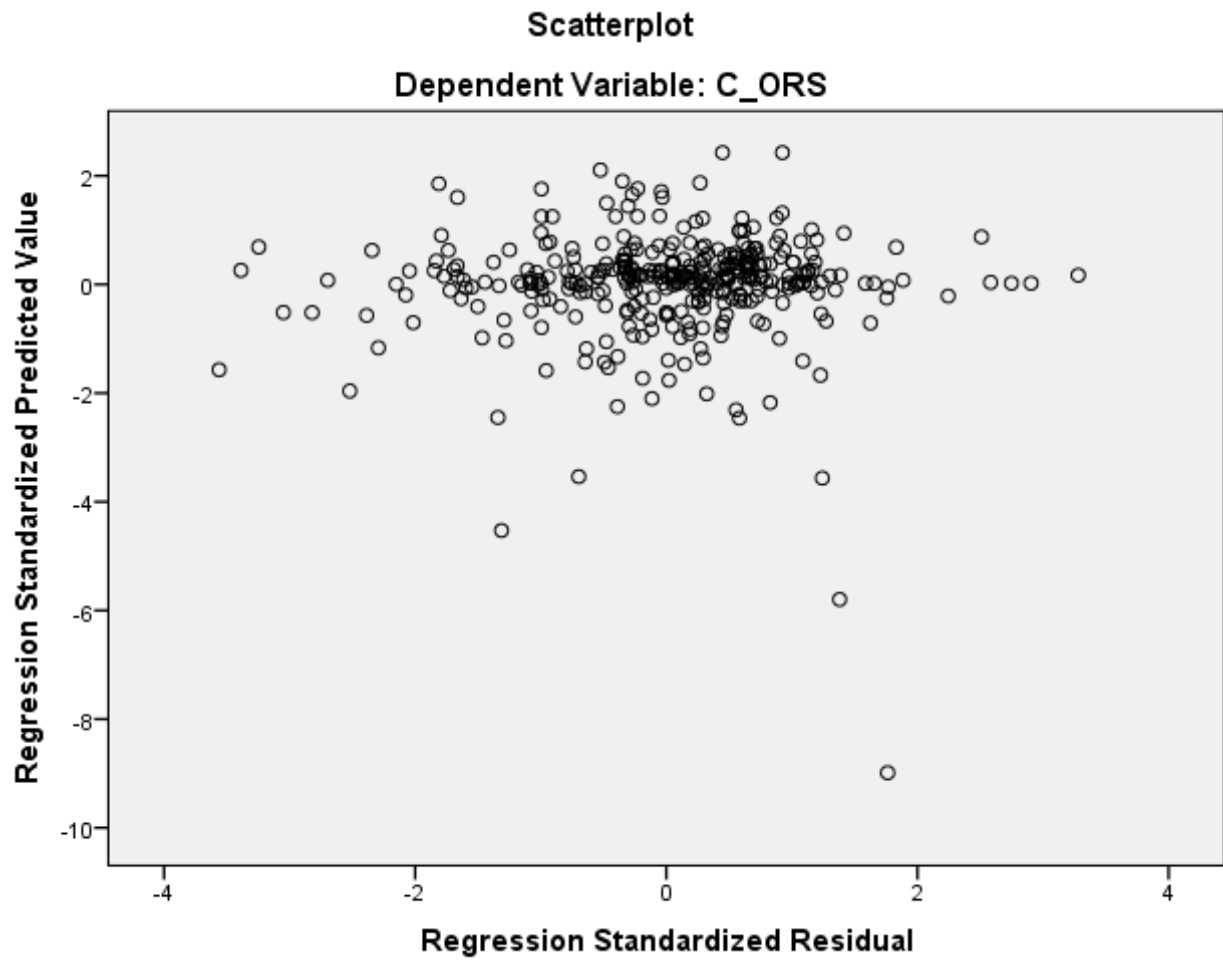
Appendix XIV: Linearity and homoscedasticity scatterplots

Model I – Concurrent relationship between working alliance and outcome

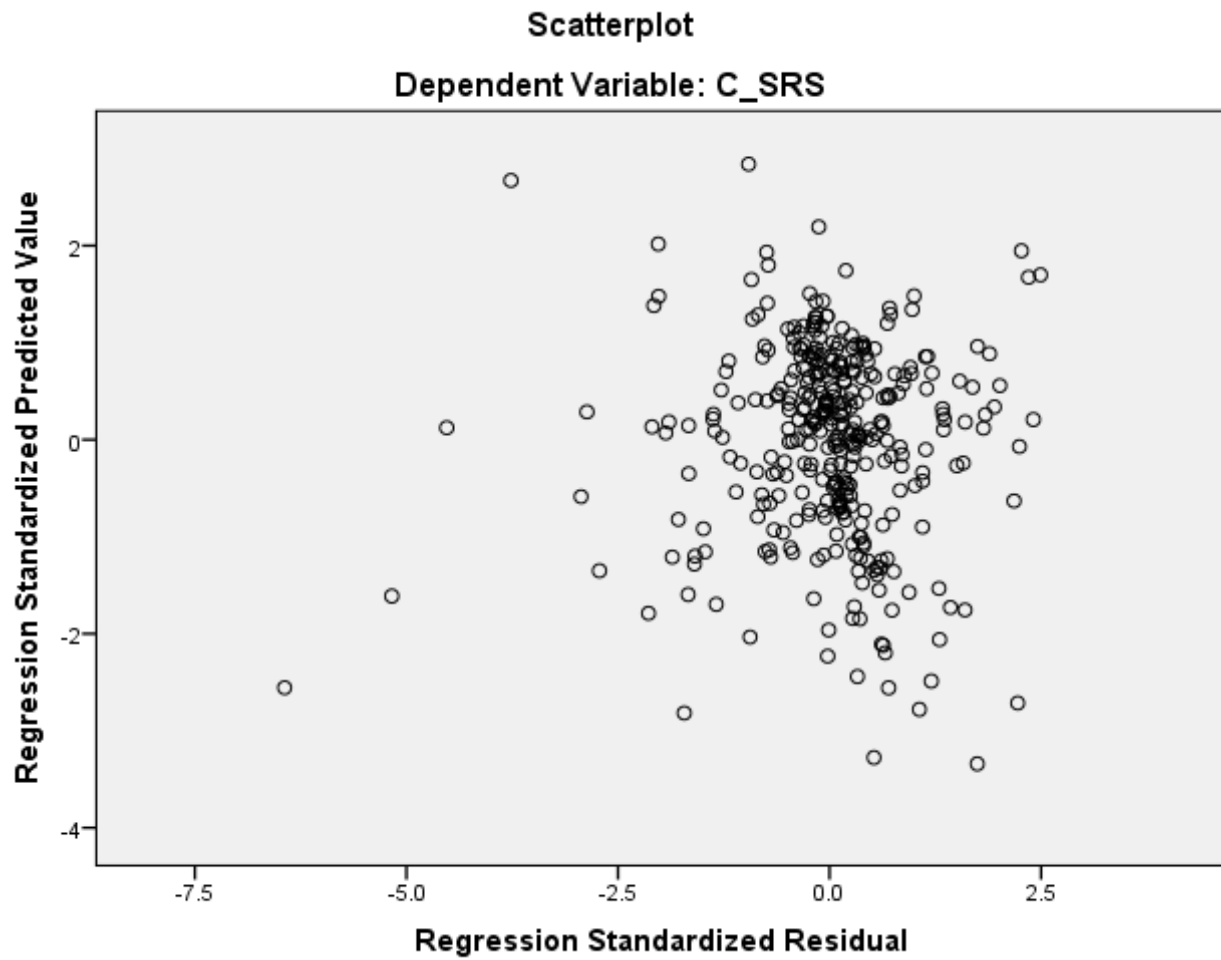


(dependent variable: centred ORS, predictor variable: centred SRS).

Model II – previous session working alliance as a predictor of current session outcome (dependent variable: centred ORS, predictor variable: centred SRS-1).



Model III – previous session outcome as a predictor of current session working alliance (dependent variable: centred SRS, predictor variable: centred ORS-1).



POSTER

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BACKGROUND

The working alliance (WA)

- Collaboration between client and therapist across goals, tasks, and bond.¹
- Moderate association with outcome in face-to-face psychotherapy.²⁻⁵

Videoconferencing psychotherapy (VCP)

- Non-inferiority of outcome compared to face-to-face delivery.⁶
- Debate exists as to the nature and effectiveness of a WA in VCP.⁷

Setting for current study

- CBT delivered via VCP to treat individuals with health anxiety.⁸
- 46 participants received up to 15 sessions of VCP from one of four therapists.
- Delivered wherever the participant chose to access it.

AIMS

1. To investigate the WA as a potential change process in VCP.
2. To gain an experiential understanding of the WA in VCP from the client's perspective.

METHOD

Phase I

Sessional measures for outcome (ORS) and WA (SRS) were analysed using multilevel modelling to examine: (1) the concurrent relationship between outcome and WA, (2) the extent to which WA leads outcome, and (3) the extent to which outcome leads WA.

Phase II

Thematic framework analysis was used on interviews.

Table 1. Participant demographics.

		Phase I (n=46)	Phase II (n=12)
Age	Median	27	31.5
	Range	19-66	20-50
Sex	Female, n (%)	37 (80.43)	12 (100)
	Male, n (%)	9 (19.57)	0 (0)

RESULTS

Phase I

Model I

- Outcome and WA significantly correlated ($F(1, 15.19) = 25.01, p < .001$), varying significantly between individuals ($\text{Var}(u1j) = 1.06, p < .001$).

Model II

- Previous session WA significantly predicted next session outcome ($F(1, 355.61) = 4.47, p < .05$).
- Significant interaction of previous session WA and therapist ($F(3, 354.1) = 4.29, p < .01$), with higher positive association for one therapist ($b = 1.06, t(0.39) = 2.79, p = .006$).

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Model III

- Previous session outcome significantly predicted WA ($F(1, 55.3) = 15.19, p < .001$), varying significantly for individuals ($\text{Var}(u1j) = 0.01, p < .001$).

Phase II

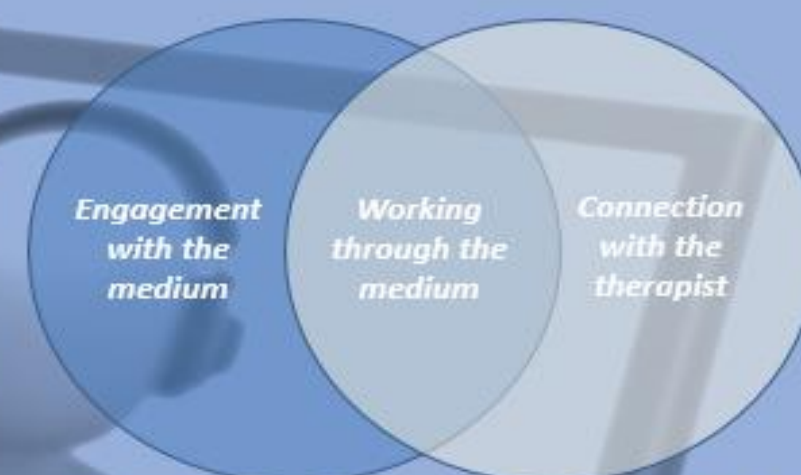


Figure 1. Synthesised core themes presented in a Venn diagram

IMPLICATIONS

- Client reported WA is associated with outcome.
- Evidence for the WA sharing a reciprocal influence with outcome in VCP.
- The WA can be used by therapists to magnify change in outcome.
- Two core concepts (*engagement with the medium* and *connection with the therapist*) combine from a participant's perspective to uniquely influence therapeutic processes in VCP (*working through the medium*).