

**Development of a fidelity measure for Acceptance and
Commitment Therapy**

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The candidate confirms that the work submitted is her own and that appropriate credit has been given where reference has been made to the work of others.

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Abstract

Introduction: Acceptance and Commitment Therapy (ACT) is a third wave behavioural therapy with a developing evidence base to support its effectiveness. Studies have been criticised for lacking methodological quality and fidelity checks have been recommended for ACT to be considered a well-established treatment. There is a need for a practical and trans-diagnostic ACT fidelity measure that is coherent with contemporary ACT theory.

Aim: This study aimed to develop a valid, practical and reliable measure of therapist fidelity to ACT.

Delphi Method: Purposeful and snowball sampling was used to recruit a panel of ACT experts for a Delphi study. Participants completed three iterative rounds of online questionnaires, where analysis informed the construction of the following round. In the first two rounds, participants were asked to generate new items and rate each item for their opinion on its inclusion. They provided comments on the measure in general and item specific feedback. For the third round, participants were presented with the ACT Fidelity Measure (ACT-FM) in its useable format for final comments.

Delphi Results: Half of the recruited panel members were recognised by the ACBS as a Peer reviewed ACT trainer and they had a mean of 11 years' experience with ACT. Their ratings and comments resulted in a 24-item measure. Items were structured around therapist stance and the Tri-flex, with ACT consistent and inconsistent items. Eighty-three percent of items met the specified criteria for consensus.

Field Study Method: ACT clinicians were recruited to use the ACT-FM to rate an ACT video. Inter-rater reliability was calculated and the clinicians provided feedback on the ease of use of the measure with suggestions.

Field Study results: The ACT-FM was found to have moderate to excellent inter-rater reliability (ICC= 0.73). Participants rated the measure as easy to use, but identified 7 items that required clarification. The measure was revised in response to their suggestions.

Discussion: A valid, practical and reliable ACT fidelity measure was created. Recruiting an expert panel for the Delphi study ensured the ACT-FM was high in content validity. It was considered practically useful by participants in the field study, and it achieved moderate to excellent inter-rater reliability.

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Abbreviations

AAQ = Acceptance and Action Questionnaire

ACBS = Association of Contextual Behavioural Science

ACT = Acceptance and Commitment Therapy

ACT-FM = ACT Fidelity Measure

APA = American Psychological Association

APACS = ACT for Psychosis Adherence and Competence Scale

BOS = Bristol Online Survey

CBT = Cognitive behavioural therapy

CFT = Compassion-Focussed Therapy

CompACT = Comprehensive Assessment of ACT processes

CTS-R = Cognitive Therapy Scale-Revised

CTRS = Cognitive Therapy Rating Scale

DUACRS-R = Drexel University ACT/tCBT Adherence and Competence Rating Scale-Revised

ESP = Empirically Supported Principles of change

EST = Empirically Supported Treatment

ICC = Intra-class Correlations Coefficients

SIGs = Special Interest Groups

tCBT = traditional CBT

NGT = Nominal Group Technique

OCD = Obsessive Compulsive Disorder

RCT = Randomized Controlled Trial

RFT = Relational frame theory

UK = United Kingdom

CHAPTER ONE: INTRODUCTION

The context of behavioural therapies

It has been suggested that in the last century, there have been three generations or “waves” of behavioural therapies. Each of these waves has brought with it a set of dominant assumptions, methods and goals that help to organise research, theory and practice (Hayes, 2004).

The first wave reached peak popularity in the fifties and sixties. It focused primarily on applying learning principles to overt behaviour change using techniques such as operant conditioning (Skinner, 1948) and classical conditioning (Pavlov, 1928). Behaviour therapists theorised simpler and more scientific explanations for clinical presentations than the prevailing clinical traditions of humanist and analytic therapies (e.g. Wolpe & Rachman, 1960). They also theorised effective interventions for presentations that were previously considered untreatable such as Obsessive Compulsive Disorder (OCD; e.g. Meyer, 1966). First wave behaviour therapies have been critiqued for overlooking the importance of internal events (e.g. Chomsky, 1959) and for losing the emphasis from humanist and analytic therapies on fundamental human issues such as why it is hard to be human or what people want from life (Hayes, 2004).

The second wave of behavioural therapies became popular in the seventies. These therapies began to address thoughts and feelings in a more central way. Clinically, therapists began to place an emphasis on interventions targeting changes in cognitions to bring about behaviour change. For example, noticing faulty information processing styles that could be corrected or challenging irrational, negative and dysfunctional thoughts and beliefs (e.g. about the self, the world and other people) in favour of rational, positive and functional thoughts and beliefs. Cognitive Behavioural Therapy (CBT) dominates this second wave (Harris, 2009). Beck (1993) noted that “cognitive therapy is best viewed as the application of the cognitive model of a particular disorder with the use of a variety of techniques designed to modify the dysfunctional beliefs and faulty information processing characteristic of each disorder” (p. 194).

The third wave of behavioural therapies is relatively young, its arrival was only declared fourteen years ago (Hayes, 2004). These therapies focus more on an individual’s relationship to their internal experiences, placing emphasis on the function of thoughts, emotions, memories and sensations, rather than on their content, form or frequency (Hayes, Strosahl, Bunting, Twohig & Wilson, 2004). They utilise contextual change strategies with a focus on mindfulness, meta-cognition, emotions, acceptance, relationships, values and goals (Hayes & Hofmann, 2017) and their methods are often more experiential than didactic (Hayes, 2004). Third wave therapies include Dialectical Behaviour Therapy (DBT; Linehan, 1993), Mindfulness Based Cognitive Therapy (MBCT; Segal, Williams & Teasdale, 2002), Compassion-Focussed Therapy (CFT; Gilbert, 2009) and Acceptance and Commitment Therapy (ACT; Hayes, Strosahl & Wilson, 1999), amongst others.

It is not thought that these waves of behavioural therapies replace each other, but rather they build on each other and carry the behaviour therapy tradition into new territory (Hayes, 2004). All of the waves are considered useful approaches today and research is beginning to identify moderators that might indicate when second or third wave therapies might be more effective (e.g. Wolitzky-Taylor, Arch, Rosenfield & Craske, 2012).

What is ACT?

ACT is a relatively new therapy that falls under the umbrella of third wave behavioural therapies. It builds upon ideas from both the first and second waves of behavioural therapies (Hayes, 2004). ACT differs from traditional CBT in that it does not seek to challenge internal experiences, but rather to change the individual's relationship with them through increasing *psychological flexibility*. Psychological flexibility can be defined as “contacting the present moment as a conscious human being, fully and without needless defence – as it is and not as what it says it is – and persisting with or changing behaviour in the service of chosen values” (Hayes, Strosahl & Wilson, 2012, p. 96). ACT does not specifically aim to reduce the distress that the individual experiences, although this may happen as a consequence of increased psychological flexibility and valued living.

The philosophical and theoretical foundations of ACT

ACT is an approach to behaviour change that is rooted in a philosophy of science termed functional contextualism (Hayes, Hayes, Reese & Sarbin, 1993), and is informed by Relational Frame Theory (RFT; Hayes, Barnes-Holmes & Roche, 2001). These foundations have influenced the development of ACT theory of human suffering and well-being and they have implications for ACT interventions.

Functional contextualism

Many models of psychology are based on a philosophy called “mechanism”. This philosophy views the mind like a machine made up of parts that can be working or problematic. A person might be described as having “maladaptive” or “dysfunctional” thoughts and feelings. These psychological models therefore aim to reduce, repair or remove the faulty thoughts and feelings so that the mind can function again. Like many other third wave behavioural therapies, the underlying philosophy of ACT is more contextualistic than mechanistic (Hayes, 2004).

Functional contextualism (Hayes, Hayes, Reese & Sarbin, 1993), is a philosophy of science which seeks knowledge of how to predict and influence psychological events (Hayes, 2015) and is interested in how things function in specific contexts (Harris, 2009). It proposes that it is meaningless to look at something out of its context. For example, analyzing a client's problematic behaviour out of the context in which it occurs would lose important information about the nature of the problem and possible avenues for solutions. Similarly, functional contextualism would not view any thought or feeling as innately problematic, but it would

depend on the context of how it is experienced. The issue is not the presence of any particular thought or feeling, but instead it is its contextually established function and meaning.

As ACT is rooted in functional contextualism, it proposes a different way of approaching therapy to psychological models based in mechanism. While mechanistic models approach therapy by trying to reduce 'symptoms', ACT instead aims to change the individual's relationship with internal experiences so that they are no longer perceived as 'symptoms'. By changing the context of thoughts and feelings from one of believing they are true to one of accepting they are there but not getting caught up in them, their function changes so that they have less impact and influence. For example, having the thought 'I am a bad person' is likely to be more problematic if the individual experiencing it believes it to be true and focuses on it, compared to if the individual notices the thought but then chooses to not get caught up in it and focuses their attention on valued living instead. In this way, ACT aims to help people see thoughts, feelings and other internal experiences for what they are, rather than as 'symptoms' that get in the way of living a full life. ACT teaches people skills to become more aware of their thoughts, feelings and actions and to notice how they function in their life, i.e. whether they improve their quality of life or not.

ACT does not aim to seek objective truth or reality because it theorizes that we can only know the world through our interactions with it, and our interactions are contextually and historically limited (Hayes, 2004). Instead, ACT emphasizes workability as a truth criterion (Hayes, 2015), in other words, what is considered true is what works. In order to know what works, it is necessary to have identified what a person is working towards, i.e. what constitutes a full and meaningful life to them. Thoughts are not seen as correct or incorrect but instead are evaluated on how useful they are in achieving a more valued life (Ruiz, 2010). Clients are encouraged to leave interest in the literal truth of their thoughts and to develop an interest in how to live according to their values despite any internal events.

Relational frame theory

RFT (Hayes, Barnes-Holmes & Roche, 2001) is a functional contextualism theory of language and cognition based on research on derived stimulus relations. It proposes that the building block of human cognition and language is 'relating'. As infants, we learn to derive arbitrary relations between events and the function of the event changes as a result. For example, if a child learns that the spelling "C-A-T" means a small furry animal and that the spelling "C-A-T" also means saying the word "cat", the child is not only able to derive relations in the other direction, i.e. a small furry animal is spelt "C-A-T", and saying the word "cat" is spelt "C-A-T", but they can also derive additional relations that they were not directly taught i.e. they are able to infer that the small furry animal is said with the word "cat" and that "cat" means small furry animal. If the child was to get scratched and upset when playing with a cat, at a later

time they then might become upset at their parent saying “oh look, a cat”, even though the child has never been scratched in the presence of the word “cat” before.

According to RFT, when we think, listen or speak we are deriving relations between events and the words we give to them. Through language we can create links between stimuli and concepts. This gives us advantages as a species, for example we can follow advice, create useful objects and anticipate a brighter future. However, because of the way language works, psychological suffering is common and shared for humans (Ciarrochi & Blackledge, 2006; Hayes, Strosahl & Wilson, 1999) and the way that we think about and speak about our experiences can take us away from the world that we live in (Villatte, Hayes & Villatte, 2015).

RFT has implications for ACT theory of human suffering. It is thought that we can behave in ineffective ways when our internal experiences (e.g. content of thoughts) regulate our behaviours over the context of the environment (Hayes, Luoma, Bond, Masuda & Lillis, 2006). This is referred to as *fusion*. We can encounter problems when we are fused with negative evaluations and inaccurate or unhelpful verbal rules (Ciarrochi & Blackledge, 2006).

Another implication of RFT for ACT theory of human suffering is that we might engage in a process called *experiential avoidance*. This is where we might attempt to escape, avoid or change the form or frequency of internal experiences (e.g. emotions and thoughts) and the contexts in which they occur, even when this results in psychological harm (Hayes, 2004). While we might try to avoid pain by avoiding the situations where it has occurred in the past, our ability to create relational frames means that the pain can occur in almost any situation. For example, thoughts of a recently lost friend might be triggered by a song, a word or a photograph, etc. As we cannot avoid all possible cues, we might try to avoid the painful emotions or thoughts themselves (Hayes, 2004). This rarely works because the attempt to avoid a painful experience becomes a cue itself, e.g. having the thought “don’t think of the major operation I need to have”, serves as a cue for the operation. People might also try to control or escape unpleasant experiences by engaging in behaviours that are not congruent with their values and are damaging to their well-being (e.g. avoiding situations, drinking excessive alcohol, etc).

The therapeutic implications of RFT for ACT are that the therapy aims to guide the person to notice their experiences as just experiences, for example, a thought is just a thought (Hayes, Pistorello & Levin, 2012). RFT seeks to identify the contexts in which language dominates and promotes suffering, and the contexts that undermine the dominance of language (Ciarrochi, Bilich & Godsell, 2010). Hayes (2004) describes how the “general clinical goals of ACT are to undermine the grip of the literal verbal content of cognition that occasions avoidance behaviour and to construct an alternative context where behaviour in alignment with one’s values is more likely to occur” (p.18).

The aim of ACT is to build psychological flexibility in clients to help them untangle themselves from the processes of fusion and experiential avoidance in the service of valued

actions. Clients are encouraged to shift their energy away from experiential control and towards valued actions, even in the presence of difficult private experiences (Ciarrochi, Bilich & Godsell, 2010).

The core processes of psychological flexibility

Early ACT theory proposes that psychological flexibility occurs through six processes, together creating a model referred to as the “Hexaflex” (Figure 1). These processes are central to the ability to persist or change behaviour in the service of values and collectively they define the ACT intervention model (Hayes & Strosahl, 2004). Each process relates to and interacts with the other processes (Hayes, Strosahl, Bunting, Twohig & Wilson, 2004). While the processes may overlap with ideas from other therapies, ACT uniquely brings them together based on RFT (Strosahl, Hayes, Wilson & Gifford, 2004).

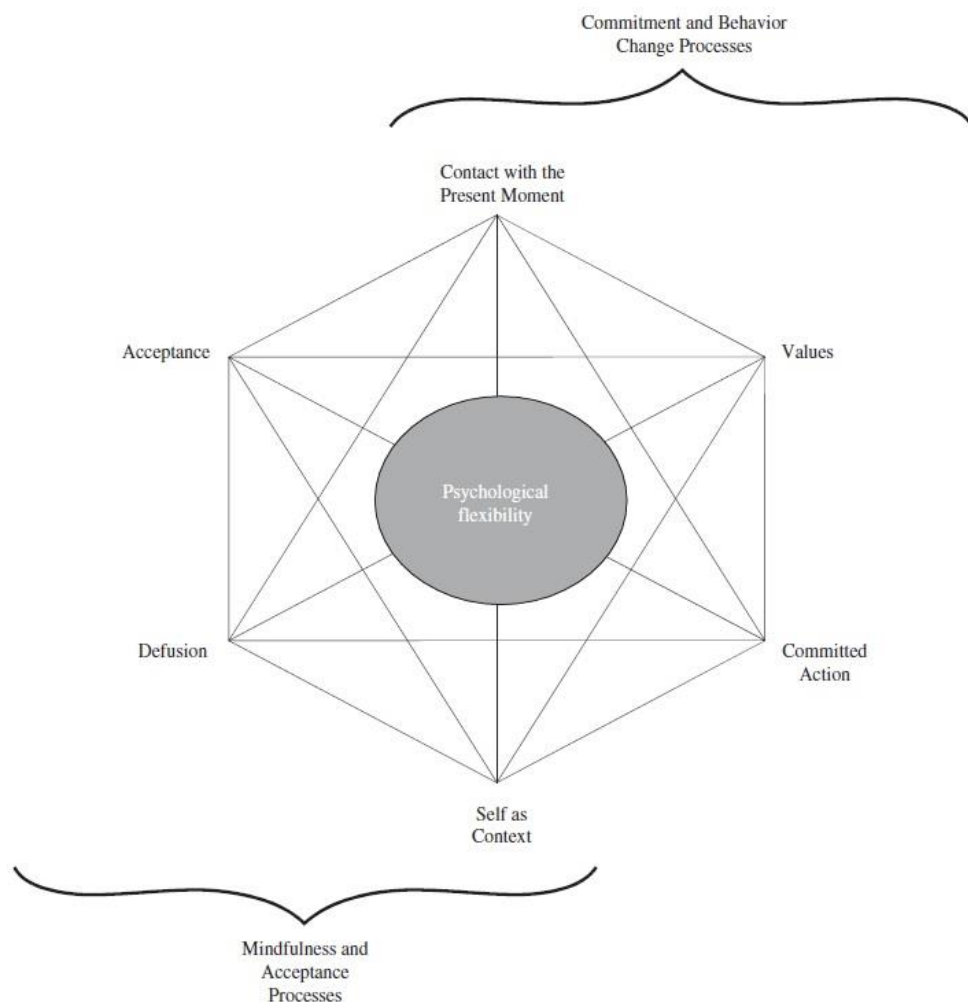


Figure 1. The Hexaflex model of psychological flexibility (reproduced from Hayes, Luoma, Bond, Masuda & Lillis, 2006, p.8)

Definitions of the six core processes

Acceptance refers to actively experiencing events for what they are rather than allowing emotional control and avoidance to dominate. Acceptance is not to be confused with tolerance,

which implies a passive stance (Hayes, Strosahl, Bunting, Twohig & Wilson, 2004), but instead it is about experiencing events fully and making room for them with a curious attitude (Hayes, Strosahl & Wilson, 2012). Acceptance also involves behavioural willingness i.e. making a values-based choice to enable or sustain contact with private experiences and the events that might provoke their occurrence (Hayes, Strosahl & Wilson, 2012).

Cognitive *defusion* refers to stepping back from internal experiences instead of being caught up in them (fusion). This enables us to choose to view mental activity in a non-judgmental way and to let go of entanglement with unwanted and distressing private events and experiences (Hayes, Strosahl & Wilson, 2012).

Contact with the *present moment* involves being able to consciously and non-judgmentally pay attention to the here-and-now, being fully present with experiences as they occur. This includes paying attention to the environment and to internal experiences. When not making contact with the present moment, one might be absent and dominated by internal or external events in a way that is not voluntary, focused and flexible (Hayes, Strosahl & Wilson, 2012).

Self-as-context refers to being able to take a flexible perspective to noticing events from an observing viewpoint. This is different to having a fixed, conceptualised view of the self (e.g. “I am an incompetent person”) which can result in narrow and rigid behaviour and can create harm (Hayes, Strosahl & Wilson, 2012).

Values refer to a conscious understanding of what is personally meaningful, this is in contrast to feeling a sense of a lack of life direction. Values are freely chosen and are ongoing, dynamic and evolving patterns of activity (Hayes, Strosahl & Wilson, 2012). Values help to motivate, organise and direct actions that are likely to make contact with reinforcing events and result in feelings of vitality and purpose.

Committed action refers to setting and taking actions which align with one’s chosen values, in contrast to rigid responding of inaction or impulsivity. It involves taking responsibility to direct behaviours in a values-based direction and to create larger and larger patterns of flexible and effective behaviour (Hayes, Strosahl & Wilson, 2012).

A ‘Tri-flex’ model

More recently, the six processes have been coupled together to form three core processes of psychological flexibility (see Figure 2). This idea was proposed by Russ Harris (2009) as the “Tri-flex” model. Harris (2009) refers to the processes as ‘open up’, ‘be present’ and ‘do what matters’.

Although referring to the same three processes, different terminology has been used to describe them. For example ‘open’, ‘centred’ and ‘engaged’ (Hayes, Strosahl & Wilson, 2012), ‘open’, ‘aware’ and ‘active’ (Hayes, Villatte, Leven & Hildebrandt, 2011) and ‘open’, ‘aware’

and ‘engaged’ (Luoma, Hayes & Walser, 2017). This last example represents the terms used in the most recent literature and therefore will be used throughout this thesis.

In the context of the Hexaflex, ‘open’ refers to *acceptance* and *cognitive defusion* processes, ‘aware’ refers to *contact with the present moment* and *self-as-context* processes and ‘engaged’ refers to *values* and *committed action* processes. This triad of processes is thought to be like three legs supporting a stool, illustrating how the three processes need to be aligned and functioning together, with the risk of the stool collapsing if one or more of the legs are out of alignment (Hayes, Strosahl & Wilson, 2012).

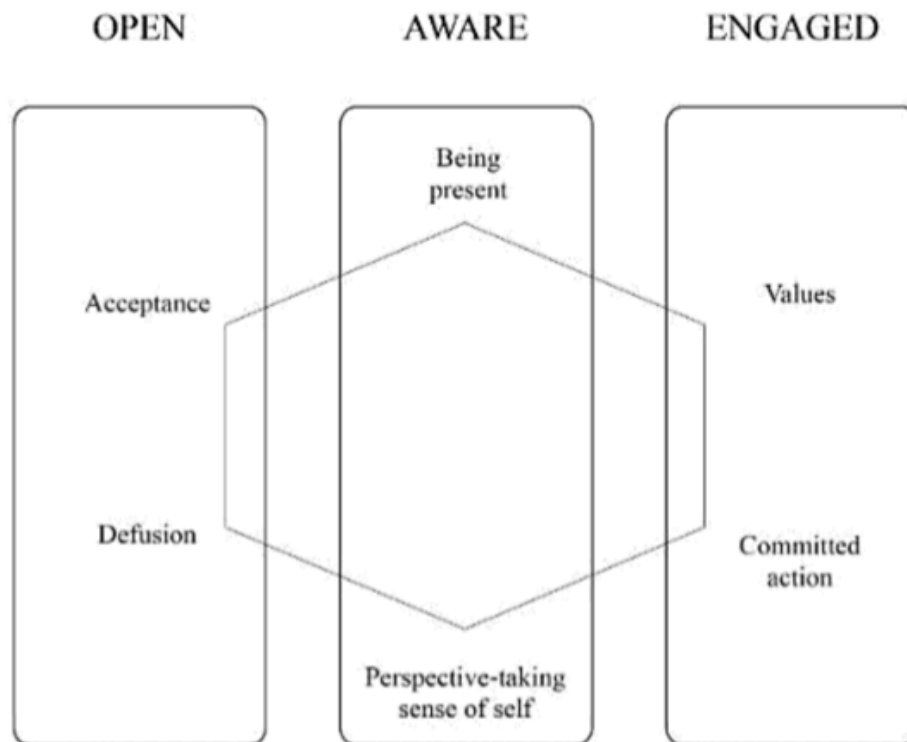


Figure 2. The three Tri-flex pillars mapped onto the Hexaflex (reproduced from Luoma, Hayes & Walser, 2017, p. 33)

What do ACT interventions involve?

Strosahl, Hayes, Wilson & Gifford (2004) outline four principles to take into consideration when applying the processes of psychological flexibility to therapeutic work. Firstly, the Hexaflex processes are interdependent and there is no correct order to work through them. Starting with any one process is likely to stimulate the emergence of other processes. Secondly, clients exhibit unique profiles across the processes and will not necessarily need to work on all six. Therapy should involve considering the client’s abilities and needs across the six processes and then targeting the area(s) that would benefit from being strengthened. Thirdly, they advise that the therapist should avoid a ‘one size fits all’ approach in terms of interventions and sequencing methods, and should be proficient at providing interventions within any of the six processes. Finally, many ACT interventions can be used flexibly across the processes and will have different meanings depending on the client’s unique learning history and life situation.

Nonetheless, there are therapeutic techniques that might typically be used when working on enhancing each of the processes.

Developing an Open response style

ACT aims to change the context in which thoughts occur to decrease the impact and importance of difficult internal events (Hayes et al., 2004). Undermining unhelpful language-based processes lessens their ability to function as barriers to valued action. One might use defusion techniques to undermine language, such as labelling the process of thinking by placing “I am having the thought that...” in front of a thought, naming stories that our mind tells us or repeating a word or thought until it becomes meaningless and just a sound.

When difficult experiences, such as anxiety, show up as a barrier to valued living, one might try opening up to the experiences instead of trying to change them or push them away. The therapist might explore the client’s previous attempts to control difficult experiences and together examine the workability of the strategies. Clients are encouraged to make behavioural choices based on their values, rather than on the avoidance of internal experiences. This is often approached in therapy using metaphors and exercises such as struggling with quicksand.

Developing an Aware response style

Mindfulness processes and exercises are used to tune in to the world as it is experienced, rather than the world as structured by products of thought (Hayes et al., 2004). In a mindfulness of the breath exercise, practicing the skill of noticing when thoughts appear and redirecting attention back to the breath builds our ability to choose where we focus our attention. It is thought that attention is a skill that can be practiced and used in situations allowing us to choose what we focus on (Hayes, Strosahl & Wilson, 2012).

When working on self-as-context, the therapist might guide the client to note that internal experiences change but consciousness does not, thus we are bigger than our experiences. Viewing from this perspective provides a safe place from which it is possible for clients to experience difficult thoughts and feelings (Hayes, 2004). Clients might work on building up their ability to see themselves through a flexible perspective rather than having a fixed conceptualised view of the self.

Developing an Engaged response style

ACT seeks to help people build a meaningful life with vitality. As such, client’s values serve as the purpose for applying other ACT processes such as acceptance and defusion (Hayes et al., 2004). Clients are encouraged to clarify what is important to them in different life domains such as health, relationships, spirituality, etc.

Therapy involves setting specific, concrete and achievable goals to help the client move in a direction consistent with their chosen values. This often requires one to anticipate and make

room for psychological barriers. Effective working in the real world produces a feeling of vitality, wellbeing and life connectedness (Hayes, Strosahl & Wilson, 2012).

The ACT therapeutic stance

In ACT the therapeutic stance is captured both by how the therapist uses techniques to encourage psychological flexibility and by how the therapist is with the client. While the treatment techniques are important, ACT places emphasis on how these techniques are chosen and integrated into treatment by the therapist to meet the needs of each individual client (Strosahl et al., 2004). This involves considering function and process rather than using techniques out of context or “canned” interventions.

The ACT therapeutic stance is deliberately equal, coming from a viewpoint that we are all human and we all struggle at times. It is more important as an ACT therapist to “do as you say than to say what to do” (Hayes, 2004, p. 19). As ACT aims to encourage psychological flexibility in clients, it follows that the therapist should model processes of psychological flexibility that they wish to impart (Strosahl et al., 2004). Therapists deliver ACT in a psychologically flexible style and give the client opportunities to experientially try out techniques themselves, without attempting to convince or lecture the client.

ACT as a trans-diagnostic approach

Third wave behavioural therapies place more emphasis on trans-diagnostic processes of change and evidence-based procedures than protocols for different diagnoses (Hayes & Hofmann, 2017). The core processes within the psychological flexibility model of ACT are hypothesized to be responsible for human suffering and human adaptability (Hayes, Strosahl & Wilson, 2012). ACT is interested in “constructing functionally important pathways of change that cut across diagnostic categories” (Hayes & Hofmann, 2017, p. 245) and therefore the model can be applied regardless of any diagnosis and trans-diagnostically (Hayes, Levin, Plumb-Villardaga, Villatte & Pistorello, 2013).

Evidence for ACT effectiveness

What is an evidence-based treatment?

The Society of Clinical Psychology (Division 12) of the American Psychological Association (APA) publishes details of Empirically Supported Treatments (ESTs) on their website (Task Force on the Promotion and Dissemination of Psychological Procedures, 1993). The APA evaluates the evidence base for different therapies for different mental health conditions to see if they meet criteria developed by Chambless and Hollon (1998) to be considered empirically supported.

They deem the research support as “strong” when meeting the criteria specified by Chambless and Hollon (1998) as “well-established treatments” (two well-designed studies

conducted by independent investigators demonstrating efficacy superior to pill/psychological placebo/another treatment or equivalent to an established treatment), “modest” when meeting the criteria for “probably efficacious treatments” (two or more good studies showing the treatment to be superior to wait-list control or one or more study meeting criteria for well-established treatment but not conducted by independent research teams) and “controversial” if studies yield conflicting results. Chambless and Hollon (1998) provide a further category that is not reported by the APA. They define therapies as “possibly efficacious” if there is support from one study, or if all of the research has been conducted by one research team. According to the current guidelines published by the APA on their website, there is strong research support for ACT as a treatment for chronic pain, and there is modest research support for ACT as a treatment for OCD, depression, psychosis and mixed anxiety disorders.

Published ACT Randomized Controlled Trials and meta-analyses

As of March 2018, there are at least 225 Randomized Controlled Trials (RCTs) of ACT (ACBS, 2018). Meta-analyses of RCTs suggest the effectiveness of ACT with a range of presentations such as chronic pain (Hann & McCracken, 2014; Veehof, Trompetter, Bohlmeijer & Schreurs, 2016), psychosis (Tonarelli, 2016), anxiety and depression (Hacker et al., 2016; Twohig & Levin, 2017), substance use (Lee, An, Levin & Twohig, 2015) and chronic diseases and long term conditions (Graham, Gouick, Krahe & Gillanders, 2016), amongst others.

When considering the evidence base for ACT as a whole, a small number of meta-analyses of RCTs have been conducted. Öst (2008) reviewed the empirical evidence of 13 RCTs (677 participants) comparing ACT to a control group or other active treatment. Six studies found ACT to have significantly better effects but that they had methodological issues and consequently did not fulfil the APA criteria for an EST as they were not well-designed studies.

Powers, Vörding and Emmelkamp (2009) conducted a meta-analysis of 18 ACT RCTs (917 participants), finding superior results for ACT compared to wait-list, psychological placebo and treatment-as-usual control conditions, but not significantly superior results compared to established treatments (e.g. CBT) or to any control condition for the four studies treating distress problems (anxiety/depression). This meta-analysis did not include thorough checks on the methodological quality of the included studies. The authors do not attempt to draw any conclusions about whether the criteria for ACT to be considered an EST were met.

More recently, Öst (2014) conducted a comprehensive meta-analysis of 60 ACT RCTs (4234 participants). He concluded that ACT may be “probably efficacious” for chronic pain and tinnitus, and “possibly efficacious” for depression, psychotic symptoms, mixed anxiety, OCD, drug abuse and stress at work, but that there was not yet enough evidence with good methodology to consider ACT as a “well-established” treatment for any disorder. These findings are different to the published list of ESTs on the APA website. This may be due to the

ambiguity of the criteria, i.e. what is meant by “well-designed studies”. It may be that the APA task force is more lenient on their methodology quality ratings than Öst (2014).

A-Tjak, Davis, Morina, Powers, Smits and Emmelkamp (2015) conducted a meta-analysis on 39 ACT RCTs (1821 participants). They found ACT to be superior to waitlist, psychological placebo and treatment-as-usual, but not to established treatments (e.g. CBT). They conclude that their findings support the use of ACT for anxiety disorders, depression, addiction and somatic health problems, suggesting that it can provide similar outcomes to established interventions. They assessed methodological quality but did not use the results to critically appraise the included studies, other than reporting that the quality of studies appears to have improved since Öst’s (2008) meta-analysis. A-Tjak et al. (2015) do not attempt to draw any conclusions about whether the criteria for EST were met.

In summary, the evidence base for ACT looks mixed but promising. Generally, meta-analyses find support for the superiority of ACT over control conditions and no significant differences when compared to established treatments such as CBT. However, there are limitations to the current evidence base. Most notably, the methodological quality of studies is either not addressed or is concluded to be inadequate to meet criteria for considering ACT as a “well-established” EST.

Methodological quality of ACT RCTs

Öst (2008) developed a 22-item research methodology rating form for psychotherapy outcome studies. He applied this in the 2008 meta-analysis when he concluded that ACT could not be considered an EST due to methodological weaknesses such as not using a credible and active control condition, not diagnosing participants, not reporting information about the therapist’s experience or training or number of therapists on the trial. He concluded that the methodological quality of ACT studies was significantly less stringent than CBT comparisons. CBT scored significantly higher than ACT for 8 out of the 22 items on the methodology quality rating scale, including the item ‘checks for treatment adherence’. Only two (15%) of the ACT studies reported any form of adherence ratings.

Using the same rating form, Öst (2014) found no significant improvement in the quality of the included studies compared to the studies in the 2008 meta-analysis. Examples of methodological issues he lists are combining ACT with other treatment components, not diagnosing participants, only using one therapist across conditions and lack of adherence and competence ratings. Öst (2014) states adherence of the therapist to the treatment was assessed in only 13 (23%) of the included RCTs and competency was evaluated in only 8 (13%) of the RCTs. He recommended that the methodological quality of ACT studies needs to improve before ACT can be considered a well-established treatment and provides 15 specific recommendations. One of these is to “audio or videotape all therapy sessions. Randomly select

20% of these and let independent experts rate adherence to treatment manual and therapist competence” (p.119).

A-Tjak et al. (2015) used the same quality criteria as Öst (2014) and conversely reported that ACT research had improved in methodology from Öst’s (2008) ratings. Indeed, Atkins et al. (2017) critiqued Öst’s (2014) meta-analysis, suggesting that he made unreliable and negatively biased quality ratings towards ACT studies. Atkins et al. (2017) compared the ratings of 36 ACT RCTs that were included across both Öst’s (2014) and A-Tjak et al.’s (2015) meta-analyses and found that Öst’s (2014) quality ratings were lower with the biggest differences for ‘checks for treatment adherence’ and ‘checks for therapist competence’. Despite concluding that the methodological quality of studies had improved, A-Tjak et al. (2015) still suggest that the methodological quality of studies could be improved further, including a suggestion of “monitoring for competence of therapists” (p. 35).

Öst (2017) suggests that the difference in methodology quality scores may be because the quality checklist is ambiguous. He points out that the scoring description he developed (Öst, 2008) does not go into enough detail to outline what is required for adherence and competence ratings. The following item descriptions were used: 0= Poor. No checks were made to assure that the intervention was consistent with protocol. 1= Fair. Some checks were made (e.g. assessed a proportion of therapy tapes). 2= Good. Frequent checks were made (e.g. weekly supervision of each session using a detailed rating form). Öst (2017) suggests that is not enough for studies to simply state that the sessions were taped for adherence and competence assessments, but that researchers need to present data that evidences the checks were satisfactory. Therefore, A-Tjak et al. (2015) gave higher scores than Öst (2014) for studies in the meta-analysis such as Lundgren, Dahl, Yardi and Melin (2008, p.105) who say “The sessions were videotaped and audiotaped to ensure treatment integrity” when taping sessions does not necessarily ensure adherence and competence, the tapes need to be checked and rated against a fidelity measure. Another example is Brinkborg, Michanek, Hesser and Berglund (2011, p. 392) who state “Adherence to the manual was controlled using a checklist after each session.” The use of a checklist does not equate to a rigorous check of therapist adherence and competence.

It would appear that the discrepancy between the quality scores for the two meta-analyses are at least in part due to vagueness in what constitutes good adherence and competence ratings. Therefore, it would follow that ACT RCTs need to be clearer with reporting how they have made these ratings, and that these need to be included for more studies. Both Öst (2014) and A-Tjak et al. (2015) suggest that the methodological quality of studies needs to be improved, specifically checking the adherence and competence of therapists.

Evidence for active ingredients in ACT

Lab based studies

While RCTs and meta-analyses are important for researching if a treatment works and can be considered as an EST, it is also important to see if therapy works through its proposed mechanisms. Some evidence for ACT processes comes from experimental studies (e.g. Levin, Hildebrandt, Lillis & Hayes, 2012). These have advantages such as comparing against a control condition, randomly assigning participants to conditions, manipulating the variable of interest whilst controlling for extraneous variables and they allow for precise measurement of responses such as moment-by-moment physiological assessment. However, they also lack real world validity. There are concerns about whether results from laboratory studies generalise to clinical situations, including the target problem, the population and process of client recruitment, selection of treatment and the therapists (Kazdin, 1978).

This is especially true for ACT, where it is emphasised that techniques should not be isolated or used in a ‘one size fits all’ way, but should be chosen to functionally meet the needs of each individual client (Strosahl, Hayes, Wilson & Gifford, 2004). Conducting research the other way round by providing therapy led by what the client brings and then isolating the processes allows them to be examined in a real life context and in line with the foundations of ACT. Research on real-world therapy allows this to be explored.

Therapy based research

Mediational analyses measuring psychological flexibility using a self-reported measure such as the Acceptance and Action Questionnaire (AAQ; Bond et al., 2011; Hayes, Strosahl, Wilson et al., 2004), and similar population specific questionnaires, have found that ACT appears to work through the proposed mechanism of psychological flexibility. Ciarrochi, Bilich and Godsell (2010) reviewed the mediational evidence to determine whether ACT has an effect in the theoretically expected way of increasing psychological flexibility. They found three types of evidence for this hypothesis; 1) Studies have found that psychological inflexibility is a precursor to suffering in that it mediates the relationship between early difficult experiences and later psychological distress (e.g. Reddy, Pickett & Orcutt, 2006). 2) Research has shown that ACT improves psychological flexibility (e.g. Bond & Bunce, 2000). 3) Research has also shown that psychological flexibility leads to increased quality of life, well-being, values-based actions and reduced clinical symptoms (e.g. Dalrymple & Herbert, 2007). Taken together, the reviewed studies gave strong evidence for the mediational effects of psychological flexibility.

In a meta-analysis of 16 outcome and mediation studies (954 participants) comparing ACT to CBT, Ruiz (2012) found that ACT worked through the proposed mechanisms of change (increase in defusion and decrease in experiential avoidance), while CBT did not work through its proposed mechanisms of change (reduction in frequency of automatic thoughts and change

in dysfunctional attitudes). This suggests that ACT may have particularly strong evidence for its proposed mechanisms of change.

In summary, research on the mediational effects of ACT supports that ACT seems to work through self-reported changes in the proposed psychological flexibility processes which may mediate outcomes (e.g. quality of life). However, the literature relies heavily on self-report measures and we do not know how therapist behaviours influence psychological flexibility and outcomes. Using behavioural and observer measures would increase the strength of claim of the mediational effect of hypothesised processes (Hayes et al., 2006). Research on the active components of therapist techniques is distinct from researching client's self-reported processes.

Therapist behaviours

Research on the mediation of client psychological flexibility allows us to ask questions about mechanisms of change i.e. how interventions have their effect (Kazdin, 2007). But it is not sufficient to answer questions about which specific ACT techniques have an effect, i.e. what works for whom (Roth & Fonagy, 2006) which would enable us to optimise treatment matching. As Paul (1969) noted “*What* treatment, by *whom*, is most effective for *this* individual with *that* specific problem under *which* set of circumstances, and how does it come about” (p.44).

McCracken and Vowles (2014) highlight that future ACT research should focus on change processes and explicitly link ACT's theoretical assumptions to its clinical techniques and processes. They state there is a need to “focus on examining treatment processes in order to identify methods and moderators that optimize change in these key processes” (p.182). While the mediational research partly answers this, research on the therapist methods that optimise client change is less written about.

To be able to research this further, it would be useful to have a tool that allows measurement of therapist behaviours that map on to the proposed ACT processes. Research could then be conducted that measures the techniques used by the therapist designed to increase psychological flexibility and investigates whether these mediate therapy outcomes and client psychological flexibility.

Fidelity measures

The methodological quality of ACT RCTs needs to be improved (Öst, 2014), and research on the role of therapist behaviours on client processes and outcomes would further our understanding of the active components of ACT. Developing a valid, practical and reliable fidelity measure to capture therapist behaviours would help to achieve these aims.

Treatment fidelity, also referred to as treatment integrity (Perepletchikova, 2011) is a term used to describe the degree to which a treatment was delivered as it was intended to be delivered. Fidelity measures therefore are assessment procedures that “measure the extent to

which an intervention or practice is implemented as intended” (Bond, Becker & Drake, 2011, p. 127).

These measures can include both the therapist’s adherence to the model and the therapist’s competence (Nezu & Nezu, 2008). According to Waltz, Addis, Koerner and Jacobson (1993), adherence is the extent to which the therapist uses interventions and approaches that are prescribed by the manual and avoids intervention procedures that are proscribed by the manual. They define competence as the level of skill shown by the therapist delivering the treatment (i.e. the extent to which the therapist considers and responds to the relevant aspects of the context). Adherence is necessary for competence, but by itself is not sufficient. For example, the therapist could use appropriate therapy techniques (adherence) but do so with an insufficient level of skilfulness (competence). Adherence and competence are usually highly correlated (e.g. Barber, Liese & Abrams, 2003). Adherence is usually measured in a quantitative capacity; i.e. how frequently prescribed behaviours are implemented and proscribed behaviours are avoided. Whereas competency is usually measured in a more qualitative way, i.e. how well the prescribed behaviours are implemented (Perepletchikova, Treat & Kazdin, 2007).

The importance of fidelity measures

Research into the effectiveness of therapy is necessary to ensure that approaches being recommended for practice have an evidence base supporting that they are likely to be successful. When conducting research into whether a therapy is effective, or if one approach is more effective than another, it is important to ensure that the therapy being delivered in the trial is representative of that particular therapy.

If fidelity is not checked then the researchers are at risk of making a type I error where significant results are attributed to a therapy when in fact the results are due to other factors. Researchers would be less certain that any changes found were due to the therapy being investigated as they could be due to common factors such as therapeutic alliance, therapist expressed empathy, service user expectations, cultural adaptation of treatment and therapist differences (Wampold, 2015) or indeed components of other therapies.

Researchers are also at risk of making a type II error, in which non-significant results are attributed to the therapy model, when in reality the therapist did not adhere to the model or did so incompetently. Dobson & Cook (1980) warn of type III errors where researcher’s conclusions about outcomes are flawed because the researchers fail to consider whether the treatment was actually delivered as intended and therefore the results may reflect poor adherence or competence rather than a success or failure of the therapy itself.

Methods for measuring and increasing therapist fidelity in RCTs

One way of increasing treatment fidelity in an RCT is to develop a treatment manual to describe and specify the procedures carried out by the therapist (Roth & Fonagy, 2006). While some ACT manuals have been created (e.g. for people diagnosed with cancer; Feros, Lane, Ciarrochi & Blackledge, 2013), these tend to be for people with specific conditions or diagnoses and there are limitations to this approach as it does not allow the therapy to be adapted for the individual's needs. It would be difficult to manualise ACT into a step-by-step guide that is suitable for everyone in every possible treatment context, especially given the importance of avoiding a 'one size fits all' approach in terms of interventions and sequencing methods (Strosahl, Hayes, Wilson & Gifford, 2004).

Another technique to increase treatment fidelity is to use careful supervision of therapists in the trial. Feedback may help to increase the adherence and competence of the therapist but it is still subjectively based on the supervisor's view of what the therapy should look like.

While these techniques promote a move towards increased treatment fidelity, neither of them allow for measurement of fidelity. A technique for increasing fidelity that does allow for measurement is to ask the therapists to self-report their adherence after each session and to identify areas for improvement. However, therapist self-reported adherence and competence is likely to be biased and distorted by self-interest (Perepletchikova, Treat & Kazdin, 2007) and incorrect due to factors such as inexperience and limited perspective. Indeed, when self-evaluating competence using a CBT measure, therapists tend to overestimate their performance when compared with ratings by experts (Brosan, Reynolds & Moore, 2008).

An alternative method for increasing and measuring fidelity is to have experts review therapy tapes or videos. They can judge how well the therapist is adhering to the therapy model and provide necessary feedback and training to improve the therapist's fidelity. This would still be subjective with each expert looking for therapist behaviours that convey adherence to the ACT model based on their experiences and preferences. One way to work towards overcoming this problem is to use a standardized fidelity measure.

Using a fidelity measure can increase adherence to the therapy model being trialled by providing feedback to the therapists. Additionally, results from fidelity measures can be used to report the overall adherence to the model. This allows the researchers to draw more robust conclusions from their data and helps to strengthen research findings as it reduces the ambiguity of the interpretation of the obtained results regarding intervention efficacy (Perepletchikova, 2011). Implementing a fidelity measure helps to minimise threats to the validity of a trial as they can reduce unknown and random variation by providing information about what has actually been done (Perepletchikova, Treat & Kazdin, 2007). Without testing fidelity, it is difficult to draw firm conclusions about treatment effects or lack of treatment effects (Waltz et

al., 1993). Nezu and Nezu (2008) recommend that assessing the therapist's adherence should be included as standard in all RCTs.

Further uses of fidelity measures

In addition to improving methodological quality of ACT RCTs and allowing researchers to explore which ACT therapist behaviours might be most responsible for change, an ACT fidelity measure would allow research to be conducted into the relationship between fidelity and outcomes. For example, do therapists who score highly on fidelity also get better therapy outcomes? If a positive relationship between fidelity and outcomes is demonstrated then fidelity measures could have another use as a measure of service quality with recommendations for improvement (Bond, Becker & Drake, 2011).

Fidelity measures can also be useful when a clinician is learning a therapy and wants to develop their skills. Recordings of sessions can be evaluated against the items in the measure to highlight areas of strength and skills that could be improved. This is a useful exercise to ensure that the developing clinician is practicing in accordance with the theory. This is important when the client has consented to a particular therapy and when research suggests that the processes in the agreed therapy may be mechanisms for change and mediate outcomes.

When considering how individuals learn a therapeutic approach and develop their skills, McHugh and Barlow (2010) highlight that little is known about the effectiveness of different training approaches and how competence following training is maintained over time. They recommended that efforts to disseminate evidence based practice should assess therapist fidelity to improve our understanding of the most effective training practices. This highlights the importance of developing therapy fidelity measures that can be used to assess therapist skills in order to evaluate learning and therapist training strategies.

Why are fidelity measures not used?

In his meta-analyses, Öst (2008, 2014) found that a significant portion of ACT studies neglected to include treatment fidelity checks. It is not just ACT studies that lack sufficient fidelity checks. Perepletchikova, Treat and Kazdin (2007) found that only 3.5% of 202 psychosocial interventions they evaluated between 2000 and 2004 adequately addressed fidelity procedures. These figures imply that any observed changes on the outcome measures used in the included studies can only be unambiguously interpreted for a very small number of the studies. Similarly, Schoenwald and Garland (2013) reviewed psychotherapy studies published between 1980 and 2008 with inclusion criteria that they provided information on how fidelity was assessed. They found 304 studies to include, of which 71.5% included observation of therapy sessions. Only one third of the identified measurement methods reported psychometric scores and there was not enough information for the authors to comment on how adherence was

indexed. This indicates that even when fidelity is assessed, it is not usually done to a high enough standard.

One reason why researchers conducting RCTs may not implement fidelity measures as often as would be advisable may be due to time and labour costs (Waltz et al., 1993). Another reason may be due to the lack of published fidelity scales for therapies other than CBT. Without existing measures, researchers are required to develop a new scale for their study which is likely to be a time consuming and costly exercise. Perepletchikova, Hilt, Chereji and Kazdin (2009) surveyed psychotherapy researchers about barriers to implementing treatment fidelity procedures and found that the biggest barriers were lack of theory and guidelines on treatment integrity procedures, time, cost, and labour constraints.

Previous fidelity measures for psychological therapies

Fidelity measures have been developed for a range of therapeutic interventions and are diverse in terms of how specific or broad they are. For example, the Yale Adherence and Competence Scale for behavioural interventions for people with substance misuse problems (Carroll et al., 2000) can be used across therapies, and The Motivational Interviewing treatment and integrity scale, (Moyers, Martin, Manual, Hendrickson & Miller, 2005) can be used across presentations.

Perhaps the therapy with the most literature on fidelity measures is CBT. The first CBT fidelity scale was developed by Young and Beck (1980) which they named the Cognitive Therapy Rating Scale (CTRS). This scale contained 11 items and was revised in 1988 to contain 13 items. The psychometric properties of the 1980 CTRS have been investigated (e.g. Vallis, Shaw & Dobson, 1986) finding acceptable reliability, but the psychometric properties for the updated 1988 measure have not been tested. The Cognitive Therapy Scale-Revised (CTS-R; Blackburn et al., 2001) is a 14-item measure that was developed to improve on the previous CTRS. This scale was modified with input from expert cognitive therapists and was more thoroughly tested for reliability and validity (Blackburn et al., 2001; see Chapter 1, p. 32 of this thesis for details of this).

The fact that fidelity measures have been available for use with CBT for nearly four decades may have played a role in the credibility that CBT has gained as an EST. The availability of appropriate fidelity measures perhaps means that researchers conducting RCTs are more likely to implement one.

Previous ACT fidelity measures

ACT differs from CBT in that CBT follows a more linear process. Whereas the core processes in ACT are interlinked and the therapist can work on any of the processes at any point in therapy and can work on more than one at the same time. In their review of previous studies, Perepletchikova, Treat and Kazdin (2007) found that fidelity procedures were addressed to a

greater extent when the treatment being evaluated was a skills-building approach, such as CBT, compared to a non-skills-building therapy, such as a process-oriented therapy. They hypothesise that this difference is at least in part due to the specificity and concreteness of the skills-building interventions as they use specific techniques which allow more uniformity between therapists and are less procedurally complex. They hypothesise that the non-skills-building approaches are more difficult to operationalise due to the improvisation, spontaneity and creativity involved. As ACT is less procedural than CBT it may be more challenging to develop a fidelity measure (Plumb & Vilardaga, 2010). However, there have been some attempts documented in the literature.

In their book 'A practical guide to Acceptance and Commitment Therapy', Hayes and Strosahl (2004) present a set of 52 ACT core competencies, organised into the six processes of psychological flexibility alongside therapeutic stance. This set of competencies was developed into a rating scale called the 'ACT Core Competency Self-Rating Form' at the first ACT summer Institute in 2004. It has been published on the Association of Contextual Behavioural Science (ACBS) website by Jason Luoma. This is a 60 item measure where the developing clinician rates their perceived competencies within the different sections. The clinician is asked to rate how true each item is for them when they are using ACT using a scale where 1= never true and 7= always true.

Julian McNally has further developed the 'ACT Core Competency Self-Rating Form' and published it on the ACBS website. However, the adaptations were to create briefer wording to reduce the physical size of the measure and so that it can be used to score 10 sessions rather than one. He suggests that the aim of this measure is to self-monitor ACT fidelity in order to develop practice without the use of observational live supervision. McNally suggests that he would like to see the 60 items reduced down to 12 or less to make it more manageable.

With colleagues, Luoma went on to publish 'Learning ACT: An Acceptance and Commitment Therapy Skills Training Manual for Therapists' (Luoma, Hayes & Walser, 2007), which includes a 51-item adaptation of the ACT Core Competency Self-Rating Form. The form was developed further and published in the second Edition of the book (Luoma, Hayes & Walser, 2017) as a 50-item scale. Throughout the Learning ACT books, the content is structured around these competencies and readers are encouraged to apply their learning to transcripts with core competency practice exercises.

These ACT Core Competency Self-Rating Forms may be practical for therapists to reflect on their practice and identify areas of strength and need for improvement within ACT. A strength is that the forms are not study or diagnosis specific, so they can be used trans-diagnostically working with clients across clinical presentations. However, with a minimum of 50 items in each version of the scale, they are lengthy. It would be difficult to use the measure to rate a therapy tape due to holding all of the different items in mind. It is unclear how these competence items were initially developed as they are presented without a description of their

development (Strosahl, Hayes, Wilson & Gifford, 2004). In summary, these scales may be convenient for therapist reflection, but they may not be practical for use as a fidelity measure to be used in research.

Dr Eric Morris (2014) has published a measure for providing supervision feedback on adherence and competence of ACT sessions, called the Adherence and Competence Tool for Supervision of ACT. However, it is published as a .pdf of the scale on his website and there is no record of how it was developed. Additionally, the scale includes items such as ‘undermining cognitive fusion’ and ‘distinguishing the conceptualized self from self-as-context’ without a clear description of observable therapist behaviours that the coder would be looking to rate. This may be sufficient as a scale for providing feedback to a supervisee, but it is recommended that fidelity measures focus on specific therapist behaviours that can be coded reliably (Nezu & Nezu, 2008). Therefore it is unlikely that this measure would be suitable for use in research.

Plumb and Vilardaga (2010) present a treatment fidelity coding manual that was designed for an ACT RCT for the treatment of OCD (Twohig et al., 2010). This includes five ACT items, one general assessment item, five anti-ACT items and two overall ratings for adherence and competence. The five ACT items reflect defusion, acceptance, values, committed action and creative hopelessness/workability/control is the problem. The present moment and self-as-context processes appear to be covered in the acceptance and defusion items respectively. As this was designed for a specific trial for OCD, some of the items included may not be generalizable to be used with other ACT interventions for other clinical populations. For example, the anti-ACT item ‘in session exposure’ is only relevant for CBT approaches to the treatment of OCD and other anxiety disorders.

The fidelity measure published by Plumb and Vilardaga (2010) has been adapted by other researchers to be included in future studies. Hill, Masuda, Melcher, Morgan and Twohig (2014) published a case-series of ACT with people with binge eating disorder and state that they scored a sample of videotapes using this measure with some modifications to make the measure applicable to binge eating. Plumb and Vilardaga (2010) recommend that researchers use their measure as a starting point and then adapt it to suit the needs of their study. As very few ACT RCTs use treatment fidelity measures (Öst, 2014), it is important to attempt to make these as appealing to clinicians and researchers as possible. One unappealing quality may be the time it takes to adapt this measure to be relevant to a new study and the costs associated with this.

It would seem that researchers do not always have the resources to adapt the measure. For example, Wicksell et al. (2013) conducted an RCT of ACT for fibromyalgia and state that they evaluated treatment fidelity using the scoring system developed by Plumb and Vilardaga (2010). As this measure was developed specifically for OCD there will have been some items that are irrelevant for fibromyalgia. This highlights a need for an ACT fidelity measure that is appropriate to use trans-diagnostically and therefore across research studies. Indeed, some studies state that no validated scale currently exists to measure therapist’s adherence to ACT

and so the researchers develop a fidelity scale in the initial phase of the trial (e.g. Thomas, Shawyer, Castle, Copolov, Hayes & Farhall, 2014) which adds strain to the research budget as developing a good measure takes time.

McGrath and Forman (2012) have published a dissertation on developing an ACT/traditional CBT (tCBT) adherence and competence rating scale named the Drexel University ACT/tCBT Adherence and Competence Rating Scale-Revised (DUACRS-R). The measure has four adherence subscales (t-CBT specific, ACT specific, behavioural, non-model specific) and a competence scale. The rater is required to code ACT and tCBT behaviours every five minutes and to code whether they think the therapist was practicing ACT or tCBT. This measure was found to have acceptable interrater reliability and could distinguish ACT from tCBT. However, it can only be used for trials comparing ACT to tCBT. This leaves a gap in the literature for an ACT fidelity measure that can be used when the therapy it is being compared to is not CBT.

In a recent RCT, Shawyer et al. (2017) assessed ACT fidelity using a measure called the ACT for Psychosis Adherence and Competence Scale (APACS) that was developed as a thesis by Pollard (2010) at La Trobe University in Australia. The APACS has six adherence items and seven competence items (one overall competence item and each adherence item is rated for competence). The six adherence items each refer to a Hexaflex process. The adherence part of the scale was found to have good psychometric properties; however, the competence part of the scale did not. This measure was designed specifically for use with people experiencing psychosis and as such the manual refers to diagnosis specific instructions e.g. “Clients with psychosis often experience emotions such as distress, fear or embarrassment in the context of their positive symptoms, and cope by attempting to prevent the symptoms from arising in the first place -or distracting themselves from symptoms” (p.80). As there are a small number of items to rate, each item has a fairly lengthy ‘rater instructions’ accompaniment in the manual, of approximately one A4 page per item. This requires the rater to spend time becoming familiar with the measure before using it and handling many pages at once when rating. It may be that a shorter and more practical measure with specific therapist behaviours as items would be more practical and quicker to use.

As discussed in greater detail at the end of this chapter, there is a need for a new ACT fidelity measure. The majority of existing measures use the Hexaflex as a structure. However, recent literature on the ACT model summarises the Hexaflex into three core processes (Harris, 2009; Hayes et al., 2011; Hayes et al., 2012). As the literature and theory has evolved it would be appropriate to develop a new measure that reflects the current state of ACT research. There is also a need for a trans-diagnostic measure that can be used across different clinical presentations and a measure that can be used when trialling ACT to a therapy other than CBT. Additionally, there is a need for a measure that is practically useful with observable therapist behaviours, a

concise manual and a scoring system that can be applied across all items rather than requiring the rater to refer to the manual for individual item guidance.

Key considerations for ACT fidelity measures

Developing and designing the measure

Plumb and Vilardaga (2010) make recommendations for the development of future fidelity measures and key considerations for ACT measures specifically. They note that while there are some techniques or exercises that typically appear near the beginning or end of therapy, there is nothing stated within ACT that requires therapists to adhere to this order. They suggest that adherence needs to be assessed from a functional perspective with clear observable therapist behaviours on the measure. They suggest that as different ACT processes may occur simultaneously, the coder should not be forced to code one primary process at a time but should be able to code all processes. They recommend coding the frequency and depth/extensiveness of behaviours, rather than simply if they were present or not. The authors note that subtleties in therapist behaviours may be difficult to code and so careful consideration needs to go into this when designing the measure and manual.

Plumb and Vilardaga (2010) also suggest that it is important to include items that are ACT inconsistent, for example, encouraging service users to challenge the content of their thoughts. This is the same recommendation that Waltz et al. (1993) make for fidelity measures in general.

In addition to items for treatment adherence, Plumb and Vilardaga (2010) recommend that treatment fidelity manuals should include at least one item of therapist competence. They provide an example: “The therapist consistently addressed the client’s needs, consistently attended to the client’s response to treatment targets, and applied the processes outlined in the manual very clearly and in-depth”.

Exploring the psychometric properties of the measure

Perepletchikova and Kazdin (2005) highlight the importance of validating fidelity measures, otherwise it is not possible to determine if they do actually assess fidelity. However, they also note that there is a lack of published literature on researcher’s efforts to establish the validity of fidelity measures.

When considering CBT fidelity measures, the original CTRS (Young & Beck, 1980) had some of its psychometric properties explored as part of a large trial for treatment of depression. Vallis, Shaw and Dobson (1986) found the CTRS to be internally reliable and they found moderate inter-rater reliability (ICC value of 0.59) for five raters who rated the same 10 tapes from a pool of 94. However, the properties of the updated CTRS (Young & Beck, 1988) have not been tested.

Blackburn et al. (2001) sought to improve on this measure by creating the CTS-R. They asked four expert cognitive therapists to develop the measure based on their experiences with the CTS and taking into account recommendations from two non-CBT practitioners who had made suggestions from a pan-theoretical viewpoint through rating videotapes of cognitive therapists. The experts “met on several occasions to revise the CTS” (p. 435) but no details are reported as to the process of making decisions to develop the measure.

With the aim of thoroughly testing the new measure’s reliability and validity, Blackburn et al. (2001) had four experts rate 102 video tapes of three stages of therapy with 34 service users provided by 21 mental health professionals training in cognitive therapy. They explored the psychometric properties by conducting tests of internal reliability, inter-rater reliability for total scores and individual items, face validity and discriminant validity (trainee’s scores improved on their second therapy case compared to their first). They state that it would have been desirable to explore concurrent validity by correlating the scores with the CTRS, but that this was outside of the scope of their study.

Of the ACT fidelity measures previously mentioned, only a few researchers have attempted to explore the psychometric properties. The measure used by Twohig et al. (2010) in an OCD treatment study was found to have moderate to excellent inter-rater reliability across three raters at the 95% confidence interval, but no other psychometric properties were explored.

Both the DUACRS-R (McGrath & Forman, 2012) and the APACS (Pollard, 2010) have had their psychometric properties explored more thoroughly as part of a larger trial for anxiety (Arch et al., 2012) and psychosis (Shawyer et al., 2017) respectively. These trials involved random assignment of participants to ACT or a control therapy delivered by multiple therapists. Tapes were randomly selected and in both studies were coded by two raters, who discussed discrepancies until an acceptable level of inter-rater agreement was reached (McGrath & Forman, 2012) or for a set number of practice tapes (Pollard, 2010).

McGrath and Forman (2012) found that the DUACRS-R had good interrater reliability and discriminant validity. Pollard (2010) found that the adherence part of the APACS had good inter-rater reliability; however, the competence items and overall competence measure did not. The APACS was found to have good discriminant validity. Convergent validity was demonstrated by correlating the APACS with the therapist self-reported adherence on a session measure.

A need for the development of a new trans-diagnostic ACT fidelity measure

State of the current evidence base

While studies show promising results for the effectiveness of ACT with a range of presentations, taking all available studies together the methodological quality of ACT studies needs to improve before it can be considered a well-established treatment (Öst, 2014). In particular, there is a lack of use of fidelity measures within the ACT literature (Öst, 2014).

Implementing a fidelity measure helps to minimise threats to the validity of a trial (Perepletchikova, Treat & Kazdin, 2007) and they allow for less ambiguous interpretation of the obtained results (Perepletchikova, 2011). It is likely that this lack of use of fidelity measures with ACT is at least in part due to a lack of availability of a practical measure to use. This study aims to address this by developing a new ACT fidelity measure.

Limitations of previous ACT fidelity measures that are addressed in the current study

There are several ways in which a new measure could improve upon existing measures. While the ACT Core Competency Self-Rating Forms have been created for use trans-diagnostically, the reviewed measures that have been developed for testing fidelity in ACT RCTs have been study or diagnosis specific. They therefore include items which are not applicable across all contexts. As ACT is a trans-diagnostic approach that can be applied regardless of diagnosis (Hayes, Levin, Plumb-Villardaga, Villatte & Pistorello, 2013), it follows that a fidelity measure for ACT should also be trans-diagnostic.

While the ideal would be to develop a bespoke fidelity measure for each RCT, Perepletchikova (2011) highlights the issues of cost and lack of validity involved with developing new measures for each new treatment design. She suggests that future research should consider creating more general and pre-validated measures of fidelity which can be adapted within limits to fit the specification of different treatments under investigation. Similarly, Gearing et al. (2011) conducted a meta-analysis of 24 articles with a focus on fidelity. They recommend that future research can reduce costs of implementing fidelity measures by using general measures. Therefore, this thesis aims to develop a novel treatment fidelity measure that is not diagnosis or study specific. The development of a new trans-diagnostic measure will allow the measure to be used across different studies, much like the CTS-R (Blackburn et al., 2001) for CBT.

Additionally, we recognise that it is possible for a therapist to be ACT consistent and inconsistent at the same time, one does not negate the other. Only some existing measures allow for this (e.g. Plumb & Villardaga, 2010), others only include consistent items (e.g. APACS, Pollard, 2010). Perepletchikova, Treat and Kazdin (2007) highlight the need to include *proscribed* tasks as well as *prescribed* tasks as this is necessary to allow the measure to be used for treatment differentiation.

There is a need for a measure to have a greater number of specific items of therapist behaviour rather than a single rating for each of the six processes of psychological flexibility (e.g. APACS, Pollard, 2010). This would allow the rater to see in detail which behaviours are the most indicative, or have the highest fidelity to the ACT model. Having specific behaviours also means that the items are self-explanatory and it is not necessary to have lengthy rater

instructions in the manual. This would make the measure more practically useful and quicker to become familiar with.

Structuring items of therapist behaviours into subscales of processes of psychological flexibility would still allow raters to see if therapists are delivering an unbalanced approach. Clinically, this would pick up on any therapist avoidance of any aspects of ACT, which would be useful to dictate their learning. It would also open up possible areas for research looking at therapist and/or treatment effectiveness by the configuration of ACT processes targeted by therapists.

Additionally, there is a need for a contemporary measure that reflects the most recent literature on ACT suggesting that the six processes of psychological flexibility can map on to three core processes, known as the ‘Tri-flex’ (Harris, 2009). Grouping items around three processes rather than six also allows the measure to be shorter and more practical.

Applications of the developed measure

The development of a trans-diagnostic fidelity measure for ACT would benefit research and clinical work in a number of ways. Its application to RCTs would allow fidelity checks as recommended by Öst (2014), which would strengthen the methodological quality of RCTs.

The development of a fidelity measure would also allow it to be applied to further the research on active components of therapy. It would help us understand which therapist behaviours are effective, inert or harmful and which contribute to processes of change. We currently know that in therapy client’s self-reported psychological flexibility scores change but we do not know if, how or which therapist behaviours lead to changes in client’s psychological flexibility.

In addition, studies could be conducted that look at the relationship between therapist fidelity to ACT and outcomes on standardized measures. If these were found to be correlated then this would provide evidence that it was ACT techniques that contributed to client change, rather than common factors of all therapies.

The development of the measure would benefit clinical work also. New and experienced therapists could use the measure to reflect on their practice, either informally on their work in general or formally rating a video or audio clip of a session. Supervisors could use the measure to identify areas of strength and need for improvement with supervisees.

How fidelity measures are developed

Previous ACT fidelity measures have been developed by a single clinician or small group. Presumably, these are developed based on their clinical experience or they are a checklist of items covering features described in the literature. We suggest that there is a need for a fidelity measure with more validity.

Roth and Fonagy (2006) recommend developing formal rating scales by deriving therapeutic skills and tasks from professional consensus (possibly using structured methods). These are then specified with precision and clarity in a way that they can be rated reliably. Similarly, Plumb and Vilaradaga (2010) recommend that a team of individuals with relevant experience should be consulted to create an ACT fidelity measure.

Integrating the clinical opinions of ACT experts through consensus building would help to develop a measure with high validity. This is possible through a research method called the Delphi, which will be detailed in Chapter Two. To our knowledge, no other ACT fidelity measures have been developed using this methodology.

The research aims

The overall aim of the thesis was to create a valid, reliable and practically useful ACT fidelity measure (the ACT-FM). To achieve this, the thesis was structured into two studies with separate aims.

- i) Through expert consultation in a Delphi study, to develop a measure of therapist fidelity to ACT, including a manual and items that cover a breadth of ACT processes (three ACT consistent and three ACT inconsistent items for each area of the Tri-flex and therapist stance).
- ii) To pilot the developed measure with ACT clinicians, assessing its inter-rater reliability and attaining feedback on its usability.

CHAPTER TWO: USING A DELPHI STUDY TO DEVELOP THE ACT-FM

As outlined in Chapter One, the aim of the first study was to use Delphi methodology to consult experts in ACT to develop an ACT fidelity measure (ACT-FM), including a manual and items that cover a breadth of ACT processes. This chapter covers the Method of the Delphi study.

Decisions regarding the choice of method

Methods for establishing group consensus

When developing an ACT fidelity measure, Plumb and Vilaradaga (2010) recommend that a team of individuals with relevant experience should be consulted to create the manual and measure. Therefore, methods were considered that facilitate consensus building and synthesise judgements through structured group communication. Two such methods are the Delphi method (Dalkey & Helmer, 1963) and the The Nominal Group Technique (NGT; Delbecq & Van de Ven, 1971). These both involve recruiting experts on a topic and allow for phases of independent idea generation, structured feedback and analysis of responses. The Delphi is a method that utilizes iterative rounds of questionnaires (usually online or postal) to structure communication on the opinions of a panel of experts. NGT is a method for bringing experts on a topic together, usually taking place in a face-to-face meeting and using tools such as flip charts (Adler & Ziglio, 1996) to aggregate group judgment.

The Delphi method offers advantages over the NGT for the aims of this thesis. The NGT technique takes place in a face-to-face meeting, which would not have been feasible for the current study due to travel as we aimed to recruit experts internationally. If distance could have been accounted for by using video-calling, it is still unlikely that a time to suit everyone could have been scheduled due to time demands of people in expert ACT positions. Additionally, a face-to-face group meeting would not be anonymous and the panel may therefore have been subjected to social pressures when contributing and when considering other participant's opinions. The questionnaires in a Delphi are completed independently which provides anonymity and increases the chances that participants can be truthful and they can express opinions which might otherwise threaten their reputation, credibility or prestige.

Another limitation of the NGT is that it takes place over one meeting, which puts pressure on participants to generate ideas in a short space of time. In contrast, the iterative rounds of the Delphi allow the participants time to think through their ideas before presenting to the group. This may promote careful and in-depth thinking (Adler & Ziglio, 1996) and time to digest the other panelists' ideas thoroughly before responding.

For these reasons, the Delphi method was chosen to consult a panel of experts to develop the measure, including the items, content of the manual, system for scoring and the

layout. A web based survey was chosen over a postal questionnaire as it has the advantages of reduced costs, faster turnaround and recruiting participants internationally.

The Delphi method

According to Linstone and Turoff (1975, p. 3), the “Delphi may be characterized as a method for structuring a group communication process so that the process is effective in allowing a group of individuals, as a whole, to deal with a complex problem.” The Delphi method was originally developed by the United States RAND Corporation, who used structured surveys to consult expert opinion on US military operations (Dalkey & Helmer, 1963). It has since become a well-used research method for eliciting and combining expert opinion and attempting to gain consensus on a variety of subjects such as government planning and business (Linstone & Turoff, 1975). It is used so that the experts can come together to provide clarity (Hasson, Keeney & McKenna, 2000).

The Delphi method has been applied to a range of research questions relevant to clinical psychology. For example, to consult expert clinical psychologists on how best to train clinical psychology supervisors (Green & Dye, 2002), to consult ACT experts on items for a measure of ACT processes (Francis, Dawson & Golijani-Moghaddam, 2016) and to consult CFT experts to develop a list of therapist competencies for delivering CFT (Liddell, Allan & Goss, 2017).

Features of the Delphi method

Delphi methods are characterised by the following four necessary features: anonymity, controlled feedback of the panellists’ judgements, iteration and statistical aggregation of the panellists’ responses (Rowe & Wright, 2001). Anonymously completing questionnaires allows participants to consider each idea without influence from social pressures, such as the social status that might be gained by a certain viewpoint or agreeing with a dominant individual. Decisions are therefore evaluated on their merit, rather than on who proposed the idea. The opinions and judgments of the panel are fed-back after each round; this usually includes the statistical group response for each item and comments that are made. The feedback process allows participants to see how their judgments compare to others and to contemplate ideas and viewpoints they might not have considered before. This may result in participants reassessing their initial opinions and judgments and provides the opportunity to clarify or change their views. The iterative rounds allow participants to refine their views in light of the findings and to change their opinion anonymously without fear of losing face in the eye of the rest of the panel. For the final round, the researcher calculates the statistical average of the panellists’ judgments, allowing for an interpretation of the data.

It has been suggested that these principles can be effectively adapted depending on the needs of the study (Linstone & Turloff, 1975) resulting in a *modified* Delphi, whereas research studies adhering to the four core principles are referred to as a *classical* Delphi (Skulmoski et

al., 2007). Although these four characteristics remain the same across classical Delphi studies, there are differences in the focus of the definition and procedure of the method. There are some general guidelines for the use of the Delphi method in psychology (Iqbal & Pison-Young, 2009) and nursing (Hasson et al., 2000) for example, but no standardised recommended guidelines have been published, resulting in variation in how the method is applied.

While there are no best practice guidelines, two systematic reviews have created checklists to assess the reporting quality of the Delphi method (Boulkedid, Abdoul, Loustau, Sibony & Alberti, 2011; Sinha, Smyth & Williamson, 2011). These were combined as part of a doctoral thesis to create a 17-item reporting quality criteria checklist to rate the methodological quality of Delphi studies (Earley, 2015). These criteria have been reproduced in Table 1. While these are useful criteria to assess the quality of reporting, this is not equivalent to rating the quality of the study, i.e. a high score indicates thorough reporting, but not necessarily high quality research.

Table 1. Reporting quality criteria checklist developed by Earley (2015)

Aspect of reporting		Specific items for which the reporting quality was assessed
Preparation	1	Research question/aims
	2	How items were generated for first questionnaire
Participants	3	Number of participants invited
	4	Characteristics of participants
	5	How participants were identified/sampled
Delphi methodology	6	Administration of questionnaires (e.g. postal, email)
	7	Information provided to participants prior to the first round
	8	Analysis of qualitative data, if applicable
	9	Details of rating scale, if applicable
	10	What was asked in each round
	11	Feedback to participants after each round
	12	Level of anonymity
	13	A priori definition of “consensus” about whether an item should be measured/dropped
Results	14	Number of respondents invited to each round
	15	Number who completed every round
	16	Results/distribution for each item scored in each round
	17	List of all items that participants agreed should be considered

Scale: 2= clearly reported, 1= partially reported, 0 =not reported/not applicable

Number of rounds

Typically, Delphi studies have two phases: an *exploration phase* and an *evaluation phase* (Adler & Ziglio, 1996). The aim of the *exploration phase* is to fully explore the subject under discussion and gain additional information. Usually, this is done in the first round with open-ended questions asking the panel to generate ideas and data. It is an acceptable and common modification to use a structured questionnaire based on a review of the literature if basic information concerning the target issue is available and useable (Hsu & Sandford, 2007).

The aim of the *evaluation phase* is to gather and assess the panel's opinions, which usually involves completing rounds of structured questionnaires. Two or three rounds of questionnaires are usually considered optimum to achieve consensus. Stopping too soon may result in meaningless results but not stopping soon enough may result in sample fatigue. It is recommended that no more than three rounds are used as more rounds often result in diminishing returns with little change (Linstone & Turoff, 1975).

Consensus definition and data analysis

Von der Gracht (2012) reviewed literature on consensus measurement in Delphi studies and concluded that a general standard of how to measure consensus does not yet exist. As there is no agreed definition of consensus or consensus criteria within the literature, researchers use many different definitions and methods to determine the level of agreement amongst the panel. They commonly set their own level of consensus (Hsu & Sandford, 2007) depending on what their aims are (Diamond et al., 2014; Von der Gracht, 2012). Some studies are vague about how they define consensus, saying that consensus was *implied* by the results, or that it was *most* participants' agreement and some studies leave interpretation of consensus entirely to the reader (Powell, 2003). Diamond et al. (2014) reviewed how consensus was defined in 100 Delphi studies and found that only 72 provided a definition for consensus.

A variety of statistical analysis techniques are suitable to interpret the data and the method used to analyse questionnaire responses varies from study to study. Some calculate the median and interquartile range of the data (e.g. Roos & Wearden, 2009), some calculate the mean and standard deviation (e.g. Cloosterman, Laan & Van Alphen, 2013) and some calculate the percentage of agreement (e.g. Morrison & Barratt, 2009). In their analysis, Diamond et al. (2014) found that the most common calculation was based on percentage agreement. Indeed, Miller (2006; cited in Hsu & Sandford, 2007) recommends that consensus can be decided if a certain percentage of the votes fall within a prescribed range. Given that a specification of consensus is fundamentally an arbitrary cut off, Diamond et al. (2014) recommend that researchers should consider including items that fall just below the threshold but are believed to be important, if justification is provided.

Method

Design

A Delphi method was employed. A panel of international experts in ACT were recruited to take part in three iterative rounds of online questionnaires accessed via Bristol Online Surveys (BOS; University of Bristol, 2009).

Participants

Delphi inclusion criteria

The literature on Delphi methods refers to recruiting a panel of ‘experts’. Participants are selected for their knowledge on the topic and their credibility with the target audience. Experts can be defined as clinicians, researchers and patients in a clinical setting (Powell, 2003).

It is recognised that choosing appropriate participants is the most important decision in the Delphi process (Hsu & Sandford, 2007). Creating a measure informed by experts meeting carefully chosen inclusion criteria is more likely to capture the concept of interest and therefore have higher validity than a measure created by a panel with less expertise. Consequently, to ensure that participants were familiar with ACT principles and theory and were well placed to comment on the development of a fidelity measure, the inclusion criteria were:

- i) Professionals who have worked in the field of ACT either clinically and/or research based for a minimum of 5 years.
and/or
- ii) Professionals who are recognised as a peer reviewed ACT trainer by the ACBS.

To ensure diversity within the ACT expert population was represented, males and females were invited internationally. As ACT is a trans-diagnostic approach and the fidelity measure is intended to be used across clinical presentations, we aimed to recruit ACT experts working with a range of client groups. Additionally, as the measure is intended to be used across clinical and research settings, participants were aimed to be recruited who worked in both clinical and research based settings. If a participant met the inclusion criteria, there were no restrictions or exclusion criteria set.

Delphi panel recruitment

Purposeful and snowball sampling methods were used to recruit participants. We initially recruited ACT experts via existing contacts of one of the supervisors (Dr Christopher Graham) and internationally recognised experts in ACT. Further participants were recruited by snowballing; at the end of the first round, participants were asked to recommend potential participants who they thought might be appropriate. These potential participants were then contacted by email and invited to take part if they met the inclusion criteria.

Delphi sample size

There is no agreement in the literature of how many experts should form the panel (Hsu & Sandford, 2007), with researchers suggesting anywhere between ten and fifty participants

(Turoff, 2002). Powell (2003) describes how a representative sample is not needed for statistical purposes in a Delphi, the qualities of the participants forming the panel are more important than its size or chosen sampling technique. Nevertheless, Rowe and Wright (2001) recommend recruiting between five and twenty participants and Skulmoski et al. (2007) suggest that when the group is homogenous, a sample of ten to fifteen participants may yield sufficient results. As ACT is a well-defined therapy, it can be assumed that the group of participants will be fairly homogenous on the topic area. Therefore, we aimed to recruit a sample size of between ten and fifteen participants.

Research team

The research team consisted of the Psychologist in Clinical Training (Lucy O'Neill), two main supervisors (Dr Christopher Graham and Dr Gary Latchford) and collaboration with Professor Lance McCracken. The team have experience of clinical and research work with ACT. We were required to consider comments and suggestions made by the panel in the context of clinical experience, literature on ACT and literature on fidelity measures. This was to ensure that any proposed developments to the measure were in line with current ACT theory and literature.

Ethical clearance

The Delphi study was approved by the University of Leeds School of Medicine Research Ethics Committee (Approval date: 19/6/2017, Approval ref: MREC16-120; see Appendix A.1). Consent was gained in the first questionnaire and carried forward to subsequent rounds, as no new participants joined in the second and third rounds. In line with Delphi methodology, responses from experts were anonymised when fed back to the group. Emails were all sent individually rather than as a group to ensure confidentiality. Although participation could remain completely confidential, participants were given the opportunity to state if they would like to be acknowledged as a Delphi panellist in the write up of the research. No payment was offered as an incentive in the Delphi study.

Measures

Development of the initial ACT-FM

As it is acceptable and common to use a structured questionnaire in the first Delphi round when there is literature available and usable on the target subject (Hsu & Sandford, 2007), the research team decided to generate an initial item pool. This was in order to ensure each area of the Tri-flex was represented in the item pool following the first round and to provide a starting point for the panel to edit and generate new items.

To develop the initial item pool, we could have derived items from the literature, from previous measures or from clinical experience. The chosen method was to consult Professor

Lance McCracken and Dr Christopher Graham to generate a preliminary pool of 42 items based on their clinical and research experience. As per the aforementioned criteria, both Professor Lance McCracken and Dr Christopher Graham fulfil the criteria to be recognized as an ‘expert’ in ACT. For example, Professor McCracken has over 15 years of clinical and research experience using ACT. He has published extensive research in peer reviewed journals on concepts of psychological flexibility and use of ACT in clinical practice. They were therefore well placed to generate the initial items as they were fully aware of the literature and previous measures and could add their own expert clinical experience.

Items were structured into eight sections based on the ACT therapeutic stance and the Tri-flex, with ACT consistent and inconsistent items within each section; 1) Therapist stance ACT consistent items, 2) Therapist stance ACT inconsistent items, 3) Open response style ACT consistent items, 4) Open response style ACT inconsistent items, 5) Aware response style ACT consistent items, 6) Aware response style ACT inconsistent items, 7) Engaged response style ACT consistent items and 8) Engaged response style ACT inconsistent items.

The design of the fidelity measure was developed by reviewing existing fidelity measures and using supervision to discuss strengths and limitations. The research team created a structure, scoring system and a draft of the manual with instructions. This initial measure is available in appendix B.2. There were several decisions to be made about the design of the first draft of the measure, as outlined here.

Competence and/or Adherence. The first important question was whether to create a measure that captured both adherence to ACT and the therapist’s competence in delivering the therapy. We initially sought to measure both as they are both important when evaluating therapy (Öst, 2014). However, Waltz et al. (1993) discuss how measures of competence need to be context specific and that competence should be defined relative to the treatment manual being used. It was therefore decided that creating a universal and trans-diagnostic measure of therapist competence would be impractical as the items that would be included are dependent on the study that is being evaluated. We settled upon developing a measure assessing adherence to ACT with the recommendation that researchers pair it with a bespoke competence measure for their specific study.

Purpose. Another important decision that was made early on was who the measure was designed for and their purpose for using it. The final measure would look different if it was designed to be used only by ACT experts to test fidelity in RCTs, compared to if it was designed to be used by ACT therapists of all levels to rate their own or others clinical skills. We decided to create the measure with reasonably experienced ACT clinicians (i.e. those who are familiar with the model) as the target user; this was to ensure that the measure was not over-simplified and was intricate enough to be able to be used in RCTs. Having experienced ACT clinicians as the target audience for the measure allows more specific therapist behaviours to be included, as these may contain technical terms that may be less understood by novice therapists.

We also discussed how it would be more achievable to simplify the finished measure at a later date, whereas it would be less practical to make a simple measure more complex as this would require adding detail.

Types of items. The literature was consulted and the research team discussed which type of items to include on the scale. It is necessary to include items of therapist behaviours that are ACT consistent, Waltz et al. (1993, p.624) refers to these as “*Therapist behaviours that are unique to that treatment modality and essential to it*”. As recommended by Plumb and Vilardaga (2010), it is also important to include items that are ACT inconsistent to determine if violations have occurred, Waltz et al. (1993, p. 625) refer to these as “*behaviours that are proscribed*”. We therefore included both ACT consistent and inconsistent items.

Waltz et al. (1993, p. 624) recommend that adherence measures should include items for “*Therapist behaviours that are essential to the treatment but not unique to it*”, these are behaviours that may be present across two treatments if comparing treatment A to treatment B. We chose not to include these types of items because they would vary depending on the therapy ACT is being compared to. Our aim was to develop a trans-diagnostic measure that can be used across RCTs comparing ACT to many therapies, rather than for a specific study.

The other type of items that Waltz et al. (1993, p.624) recommend including are “*behaviours that are compatible with the specified modality and therefore not prohibited, but neither necessary nor unique*”, for example chatting with the client at the beginning of sessions. They recommend including these items to give data on the dosage of the intervention. We chose not to include these items because we wanted to keep the measure as succinct as possible, so we prioritised the types of items that give data on adherence rather than potency of treatment.

Scoring. Rating scales of previous measures were researched and the benefits and limitations of various styles were discussed. Some measures such as the CTS-R (Blackburn et al., 2001) have single items to measure large concepts (e.g. ‘eliciting key cognitions’). These concepts are vague and require a description in the manual for what would constitute a 0, 1, 2, 3, 4 and 5 on the scale for each item. Whilst this is practical for some measures, our aim was to include items that are observable therapist behaviours so that the measure is as objective as possible, increasing the likelihood that it has good reliability. Using specific behaviours means that each item can be scored on the same scale rather than creating a unique scale for each item with descriptions of how to achieve each score like on the CTS-R (Blackburn et al., 2001). A benefit of this is that once the rater is familiar with the scale, less time is needed to score each item; therefore more items can be included on the measure. Including more items allows detailed information to be collected on the therapist’s specific behaviours that have high or low fidelity to the ACT model rather than a vague rating for a large concept.

Some existing measures simply rate if the behaviours are present or absent, but others gain more detailed information by measuring frequency, depth, appropriateness, expertise and extensiveness, amongst other concepts. Waltz et al. (1993) highlight how rating frequency or

extensiveness provides more detailed information than simply rating the occurrence or non-occurrence of therapist behaviours. However, they also warn of using a frequency rating, as greater frequency does not necessarily mean better adherence.

For the greatest accuracy, a scale with separate scoring for each of frequency, depth and appropriateness may give the most precise recordings. However, this would be time consuming for raters to code and therefore we settled on a scoring system combining these factors that is quicker and easier to use, at the expense of some accuracy and detail of the data. We discussed developing a scale where a high score could be achieved because the item was observed frequently but not in depth, or only once but in great depth. This style of rating is used in Plumb and Vilardaga's (2010) measure and so we adapted this for the first draft of our scale to present to the panel.

The scale on Plumb and Vilardaga's (2010) fidelity measure is a five point scale ranging from 1= not at all to 5= extensively. We discussed in supervision about whether to also use this scale or whether to adapt it to a three point scale. Three items would be quicker for raters to use and may have greater reliability, but it might be compromised on sensitivity. We chose to begin with the five point scale with the option of reducing it in response to comments from the panel if necessary.

Another decision made about the scoring system was when the rater should score the items. Some measures (e.g. DUACRS-R; McGrath & Forman, 2012) require the rater to score every five minutes. More commonly, the rater is encouraged to make comments to aide their memory, but to score at the end of the session (e.g. CTS-R; Blackburn et al., 2001). Whilst the first option would give more detailed recordings on frequency, we opted for the second option as it is less demanding for the rater and it was important for the ACT-FM to be practical for rating adherence in clinical practice and in clinical trials. Additionally, it was felt that it was more important to capture the quality of the therapists overall adherence to an item rather than being concerned with exact frequencies.

Measures used to evaluate the ACT-FM in the Delphi

Round 1 questionnaire. This questionnaire was created specifically for this study using BOS. It included an information page, consent page, demographic questionnaire, draft of the ACT-FM manual for comments, list of 42 initial items for scoring and comments and a nomination form. See appendix B.3 for screenshots; a list of initial items is also available in the Results section (Chapter Three).

The draft manual was presented with free text spaces for comments and suggestions. The initial item pool was presented for each of the eight sections item by item with the following questions: 1) 'How well does this item capture the above ACT concept?', 2) 'How observable is this therapist behaviour?' and 3) 'Do you think this item should be included in the final measure?' As recommended by Linstone and Turoff (1975) the questionnaire utilises an

interval scale. We chose a 7-point Likert scale (where 1=not at all, 7=definitely), which allows for statistical analysis to determine if consensus is met (Shelton & Adair Creghan, 2015). There were free text spaces for each item allowing participants to suggest edits to improve the wording for the item, suggest new items and make general suggestions and comments to supplement their ratings.

We ensured that instructions were identical for all items and that questions were framed in a manner that did not encourage the panel to choose one answer over another (Shelton & Adair Creghan, 2015). We also ensured that we provided clear instructions as this can help increase the reliability of the panel's responses (Adler & Ziglio, 1996).

Round 2 questionnaire. This questionnaire was created in response to the panel's scores and comments from round 1 (details are available in the Results section). It was produced on BOS and included a revised draft of the manual for comments, list of revised items and demographic questionnaire. Screenshots of the round 2 questionnaire are in appendix C.4.

The revised draft of the manual was presented with free text spaces for comments and suggestions. The revised items were presented for each of the eight sections item by item with the question 'Do you think this item should be included in the final measure?'. A 7-point Likert scale was chosen to be consistent with round 1. For this round, 1= definitely do not include and 7= definitely do include. Free texts spaces were given for each section allowing participants to suggest edits to improve the wording and make general suggestions and comments to supplement their ratings. Once again, the items were presented with identical and clear instructions (Shelton & Adair Creghan, 2015; Adler & Ziglio, 1996).

Round 3 questionnaire. This questionnaire was created in response to the panel's scores and comments from round 2 (details are available in the Results section). It was created on BOS and screenshots are available in appendix D.4.

The questionnaire was designed to structure feedback on the .pdf of the ACT-FM which was emailed to the panel. Free text spaces were given to structure any final comments or suggestions on 1) the manual and scoring, 2) the items, 3) the appearance / layout / usability, 4) any other comments and suggestions and 5) any reflections on the process of taking part in the Delphi study.

Procedure

Overview

A Delphi method study was conducted through a series of online questionnaires on BOS over three rounds. Each questionnaire took approximately 30 to 60 minutes to complete.

Round 1

Potential participants were individually sent an email inviting them to take part (appendix B.1). If they chose to take part, they could follow the link to the BOS. See the Measures section for details of the round 1 questionnaire and appendix B.3 for screen shots.

On the BOS, participants were shown an information page covering all ethical considerations and contact details for the research team. They were then asked to confirm that they understood and if they would like to consent to take part. Participants entered an email address as a signature and the page did not allow the participant to take part in the following pages of the questionnaire unless they had consented to take part.

The demographic questionnaire asked participants to provide details to be used to describe the whole panel. Participants were asked to state their gender, country of residence, main professional background (mainly clinical work, mainly research work, or clinical and research work equally), their length of experience using ACT in years, whether they are recognized as a Peer Reviewed ACT Trainer by the ACBS and which client group(s) they work with.

Participants were then presented with more information on the structure of the scale and clear instructions of how to approach the following pages of the questionnaire. The next page was a draft of the manual, with a free text space to suggest any edits. Participants were also informed that they would be shown the manual again at the end of the questionnaire if they would prefer to see the items before commenting.

The following 8 pages were structured by the sections of the fidelity measure; i.e. the first page was for 'Therapist stance, ACT consistent items' and so on. A brief description of the ACT Therapist stance and each area of the Tri-flex were provided for the panel to bear in mind when rating the items. The initial pool of items was presented item-by-item. Participants were asked to rate each item in response to the three questions outlined in the Measures section and participants could suggest edits to the wording, suggest new items and provide comments on each section. This was repeated for all eight sections of the measure.

Participants were then shown the manual again and given a free text space to make comments or to suggest any edits. They were given a free text space to make any comments regarding the first round in general. Participants were shown a nomination form. Here they were asked to provide contact details of any other potential participants they thought would be suitable for the study. Finally, participants were given a space to add any final comments before being taken to the 'Thank you' page upon clicking 'Finish'.

Results from round 1 were collated and analysed. Items were ordered within each area of the ACT-FM starting with the item with the highest percentage of participants scoring as a 6 or 7 on the Likert scale for question 3 ('Do you think this item should be included in the final measure?'). See the Data analysis section of this chapter for more details on this. The research team considered each item, taking into account the score it achieved and comments made by the

panel. Any items scoring below the consensus cut off were not kept in their original form. Taking the panellists suggestions into account, items were edited to improve them or deleted. Some highly scoring items were kept in their original form, new items were added that were suggested by the panel and some new items were generated by the research team in response to comments made by the panel that highlighted a need.

The suggestions for the manual were also considered by the research team. Each comment was discussed with reference to literature on ACT and fidelity measures. The panel's suggestions were either actioned or given a rationale for why we chose not to action it. All decisions made in response to the panel's comments and suggestions were made by the research team. This process resulted in a revised version of the items and manual, which formed the content of the round 2 questionnaire.

Round 2

Only participants who took part in round 1 were invited to take part in round 2. An email was individually sent to participants (appendix C.1) with a summary of the group's ratings and comments (appendix C.2) along with a link to the second round questionnaire based on the revised draft of the measure (appendix C.3). If they chose to take part, they could follow the link to the BOS. See the Measures section for details of the round 2 questionnaire and appendix C.4 for screen shots.

On the BOS, the revised manual and scoring was presented to participants with a space to leave comments and suggestions. Next, the panel were asked to rate the revised items and were informed that we would choose three from each section for the final measure, taking their ratings into account. The items were presented to the panel one section at a time where they were asked to rate each item in response to the question outlined in the Measures section. At the end of each section there was a free text box to make suggestions to improve items, sections or the overall measure.

Participants were asked to provide the same demographic details as in the first round and they were given the opportunity to state if they would like to be acknowledged as a panel member in any publications of the study. Participants were shown a thank you message and informed that they would be emailed a developed version of the measure for their comments once the results from round 2 were analysed and the measure had been created.

Results from round 2 were collated and analysed. Once again, items were ordered within each section starting with the item with the highest percentage of participants scoring it as a 6 or 7 on the Likert scale. The research team selected the final 3 items for each section. Where possible, these were the highest scoring items within the section. For some sections, the highest scoring 3 items did not cover a breadth of Hexaflex processes, so items were selected from outside the top 3. This process is detailed in the Results section.

Comments and suggestions from the panel to improve the manual and items were discussed by the research team with reference to literature on ACT and fidelity measures. Each comment was either actioned or given as clinical rationale for why we chose not to action it.

Round 3

All participants who took part in round 1 were invited to take part in round 3. An email was sent to participants (appendix D.1) with a summary of the group's ratings and comments from the second round (appendix D.2). They were also sent a draft of the measure in .pdf form (appendix D.3) and a link to the BOS questionnaire (appendix D.4).

Participants were asked to provide comments and suggestions on the manual and scoring, the items, the appearance / layout / usability of the measure, before being asked for any other comments and suggestions or reflections on the process of taking part in the Delphi study. Once again, participants were asked to provide demographics and they were given another opportunity to state if they would like to be acknowledged as a panel member in any publications of the study. Finally, participants were shown a thank you message and were informed that they would be sent a final version of the measure to use freely once we had developed it further.

The comments from the final round were summarised and discussed by the research team with reference to literature on ACT and fidelity measures. Suggestions were actioned and the measure was developed further in response. Finally, after the field study had been conducted and the ACT-FM developed further, the panel members were emailed with a .pdf of the final draft of the ACT-FM (appendix F.2) along with a summary of their round 3 responses (see appendix D.5).

Data analysis

Participant data

For the Delphi study, response rates for each round and the percentage of participant attrition between rounds was calculated. Demographics of participant data were calculated for each round.

Descriptive statistics

The criterion chosen for consensus in this thesis was achieving 80 percent of participants' votes fall within two categories on the 7 point Likert scale (Ulschak, 1983; cited in Hsu & Sandford, 2007). Therefore, the percentage of participants scoring each item as a 6 or 7 on the 7-point Likert scale was calculated.

As the aim of the current study was to develop three ACT consistent and three ACT inconsistent items for each section of the measure, items were ordered within their section from the item with the highest percentage of participants scoring as a 6 or 7 to the least. Means and

standard deviations were also calculated for each item and these were used to order items that achieved an identical percentage of participants scoring as a 6 or 7. Whilst the appropriateness of using the mean score in Delphi studies has been questioned due to the fact that scales in Delphi studies are often not defined at equal intervals (Witkin, 1984), we chose to use the mean. This is because the mean allows a score to be calculated to decimal places, whereas the median and mode give whole numbers. This is necessary for the data because two items may have the same percentage of participants scoring as a 6 or 7 and median score, but are unlikely to achieve the same mean to two decimal places, so we could arrange the items into the order of consensus as rated by the panel to distinguish between items without losing any information. Arguments that the mean and median can be misleading as there is the possibility that data clusters around two polarized points rather than a single point (Witkin, 1984) are less relevant for our analysis as the items have already been ordered by percentage of participants scoring as a 6 or 7 which overcomes this flaw. The number of items kept, edited, deleted and added was calculated for each round.

Delphi manual and scoring system feedback

Participants' comments on the manual and scoring system in all three rounds were summarised and discussed by the research team. The research team considered the comments in the context of the ACT literature, fidelity measure literature and their clinical experience using ACT to edit and develop the measure.

Delphi item specific feedback

Participants' comments on each item in the first round were summarised and were discussed by the research team. Decisions were made to edit the wording of items and to delete some items. Items were deleted if they did not meet the consensus criterion and there were no suggestions of how to improve the item or if participants suggested that the item was difficult to understand. In the second round, participants were invited to comment on the items within each section as a whole. These were summarised and were discussed by the research team resulting in the wording of some items being edited.

Delphi overall feedback

In all three rounds, participants were invited to make comments on the round in general. These comments were summarised and discussed by the research team and acted upon where necessary.

CHAPTER THREE: RESULTS OF THE DELPHI STUDY

This chapter covers the Results of the Delphi study, including the whole Delphi results and sections for each of the three rounds. There is also a short Discussion specific to this study.

Participants

Response rates and attrition

A flow chart summarising participant involvement is shown in figure 3. A total of 47 potential participants were invited to take part in round 1. Participants who took part in round 1 were invited to take part in rounds 2 and 3. The response rates were as follows: 13/47 (28%) for round one, 10/13 (77%) for round two and 9/13 (69%) for round three. There was an attrition rate of 26.1% for round two and 36.4% for round three.

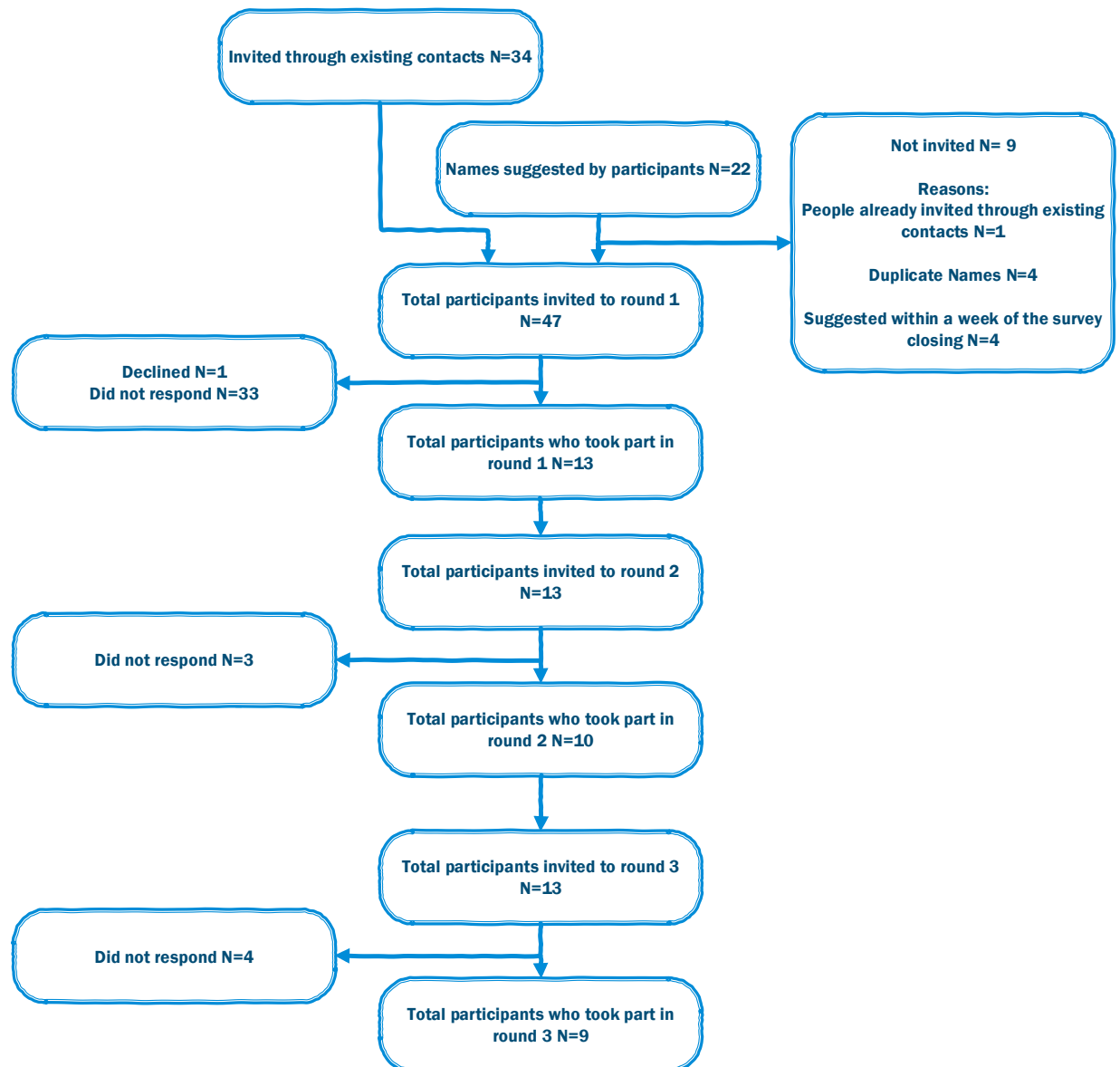


Figure 3. Flow diagram of participant involvement in the Delphi study.

Sample characteristics

Demographics were sampled for each round of the Delphi and are available in Table 2. Additional information on client groups was gathered in round one. The client groups that participants reported working with are as follows: adult mental health (9), physical health (4), chronic pain (3), neuropsychology (3), supervision and training (3), psychosis (2), paediatrics (1), grief (1) and work and sport (1).

Across all three rounds, male and female participants were represented from Europe and two other continents. Participants working clinically and research based were represented with a roughly even split, the mean years of experience working with ACT was around 11 years, and approximately half of the participants in each round were recognised by the ACBS as a Peer Reviewed ACT Trainer.

Table 2. Demographics across the three rounds of the Delphi.

		Round 1	Round 2	Round 3
Number of participants		13	10	9
Male, female		10, 3	7, 3	7, 2
Continent of Residence	UK	8 (61.5%)	7 (70%)	6 (66.7%)
	The rest of Europe	2 (15.4%)	1 (10%)	1 (11.1%)
	North America	2 (15.4%)	1 (10%)	1 (11.1%)
	South America	1 (7.7%)	1 (10%)	1 (11.1%)
Years of experience with ACT	Range	5 - 23	5 - 13	5 - 14
	Mean	11.3	10.8	11.2
	SD	4.2	2.6	2.8
Number Recognised as a Peer Reviewed ACT Trainer by the ACBS	Recognised	6 (46.2%)	5 (50%)	5 (56%)
	Not recognised	7 (53.8%)	5 (50%)	4 (44%)
Type of Work	Mainly Clinical	4 (30.8%)	4 (40%)	3 (37.5%)
	Mainly Research	6 (46.2%)	5 (50%)	3 (37.5%)
	Clinical and Research	3 (23.1%)	1 (10%)	2 (25%)
	Equally			

Whole Delphi results

The first round of the Delphi aimed to move from an initial item pool generated by the research team to an item pool that was developed by the panel by editing, adding and deleting items. The second round aimed to reduce the item pool to three items within each area for inclusion in the final measure. The third and final round aimed to attain any final comments and suggestions from viewing the ACT-FM as it would be used. Figure 4 summarises the pathway of items through the Delphi.

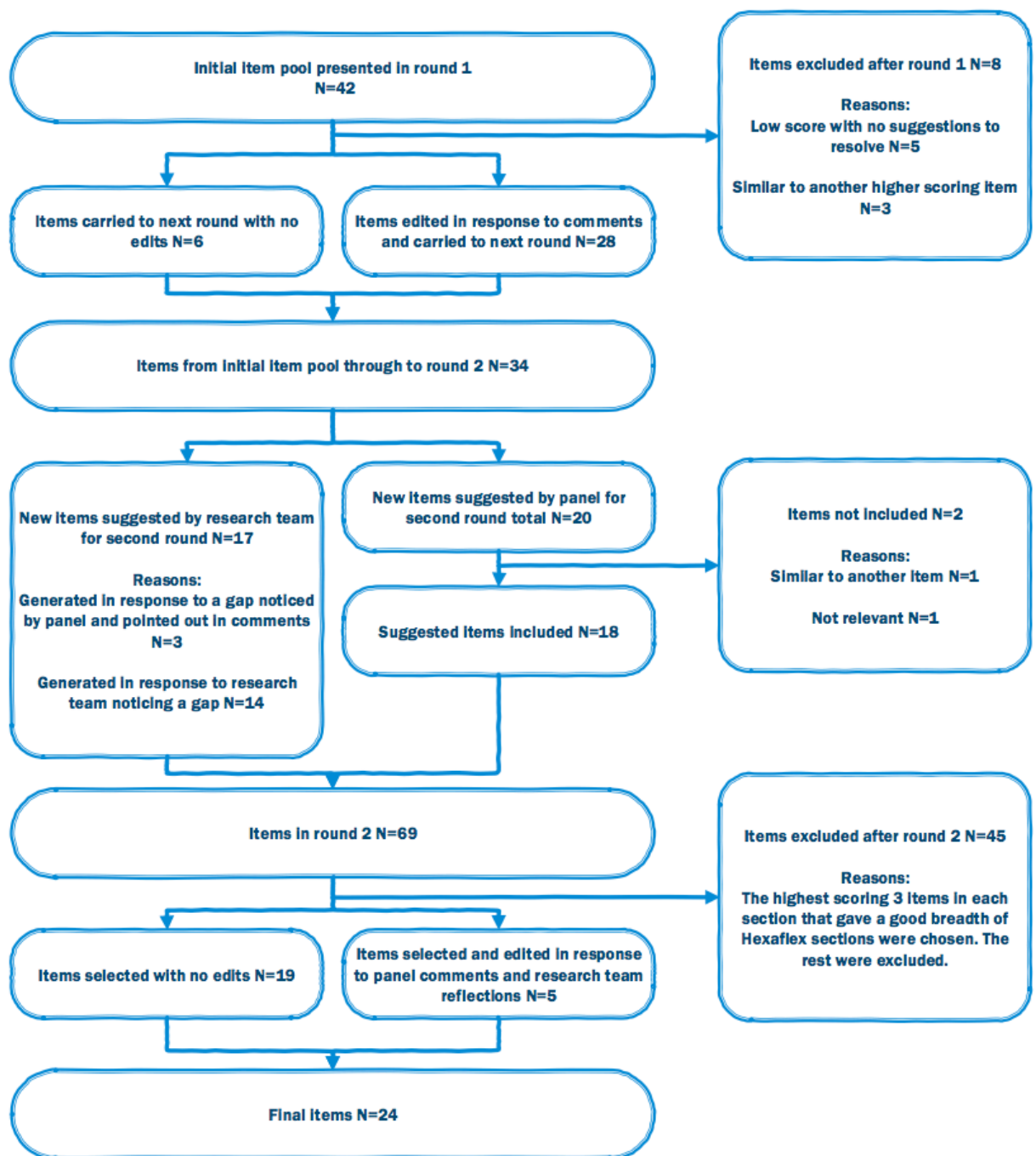


Figure 4. Flow diagram to illustrate the pathway of items.

Round one results

The participants made comments on the fidelity measure in general as well as specific item comments. All of these can be found in appendix C.2. First, the general comments are summarised with the research team's decision on how to action them, then the process for analysing and refining individual items is summarised. Finally, the process of feeding back to the panel is outlined.

Panel comments

Comments on the rating scale

Panel comments. Four participants commented on the scoring system (see Table 3 for the rating scale proposed in round 1). One participant suggested that the scale should start from 0 rather than 1 to allow for an absence of behaviour, rather than an absence still achieving a score of 1. Two participants commented on how the scale to rate items was unclear, with more detail needed as to what we meant by a behaviour being ‘addressed’ and what the definition of ‘depth’ is. Two participants suggested that the scoring should measure frequency instead of depth as it is more objective.

Table 3. Rating scale initially proposed (adapted from Plumb & Vilardaga, 2010).

A rating of:	Would indicate:
1 = Not at all	These behaviours never occurred
2 = A little	At least one of these behaviours occurred at least once (and may have occurred a few times) and was not addressed in an in-depth manner.
3 = Somewhat	Some of these behaviours occurred and at least one was addressed in a moderately in-depth manner.
4 = Considerably	Several behaviours occurred; and some were addressed by the therapist in an in-depth manner.
5 = Extensively	Behaviours occurred with great frequency and at least several were addressed by the therapist in a very in-depth manner.

Research team’s discussion and decisions. The scale was updated to start at 0 in response to the suggestion (see Table 4 for the rating scale revised in response to round 1 comments). The research team considered the comments reflecting a need for more clarity in how to rate therapist behaviours on the scale. While the suggestions to measure frequency would result in more accurate ratings, fidelity literature suggests that the therapist displaying more of a behaviour does not necessarily mean they are doing ACT with greater fidelity (Waltz et al., 1993). As such, the research team moved away from rating absolute frequencies, but settled on using the concepts of ‘rarely’, ‘sometimes’ and ‘consistently’. These descriptions capture frequency in a flexible way that could be achieved by a therapist doing the behaviour more often, in more detail and/or for more time, depending on what is relevant to the item. It was necessary for the scoring descriptions to work in the context of rating ACT consistent and ACT inconsistent therapist behaviours.

Another decision made to promote clarity was to reduce the number of points on the scale from 5 to 4 so that a score of 0 indicates that the behaviour did not occur and a score of 1-

3 indicates that the behaviour was enacted rarely, sometimes or consistently by the therapist. The research team felt that distinguishing between the three levels of occurrence would be more manageable for a rater than four levels and it makes the rating scale clearer.

Table 4. Rating scale revised in response to round 1 comments.

A rating of: Would indicate:		
0	This behaviour never occurred	
1	This behaviour occurred	Therapist rarely enacts this behaviour
2	This behaviour occurred	Therapist sometimes enacts this behaviour
3	This behaviour occurred	Therapist consistently enacts this behaviour

Comments on inconsistent items

Panel comments. Two participants commented on whether the ACT inconsistent items are necessary. Three participants suggested that the rationale for the inclusion of ACT inconsistent items needed to be made clearer.

Research team’s discussion and decisions. The research team discussed these comments and consulted literature on the fidelity measures (e.g. Waltz et al., 1993; Plumb & Vilardaga, 2010) which highlights the importance of including inconsistent or ‘proscribed’ therapist behaviours to determine if errors have occurred. We discussed how it is possible for the therapist to show ACT consistent and inconsistent behaviours at the same time, and a measure of only consistent behaviours would miss these. The manual was therefore developed with a clearer rationale for why the inconsistent items are included, and it was added that these can be omitted if they are not necessary for individual purposes.

Comments about rating the therapist behaviour irrespective of how client responds

Panel comments. The proposed manual stated that the therapist’s behaviour should be scored irrespective of how the client responds. Two participants commented on the client’s response being an important part of rating. The participants suggested that the rater should score whether the therapist’s behaviour had the desired response not just whether the therapist demonstrated the behaviour.

Research team’s discussion and decisions. The research team considered these comments, weighing up the pros and cons of measuring client responses and how this would be done practically. We discussed how this would require the measure to define the client behaviours that would indicate a useful therapeutic technique, but that therapy techniques might not be helpful immediately, or the client may not recognise it as helpful. After discussions about the different narratives that would be required to capture client response in a useful and meaningful way, the research team considered it beyond the scope of the current measure. Whilst client response is important, the focus of the current study was to develop a brief and practically useful measure of therapist fidelity.

Additionally, fidelity literature (e.g. Plumb & Vilaradaga, 2010) emphasizes the importance of rating the therapist behaviour, regardless of whether or not it was met with success on the part of the client. The rationale for this is that the therapist should not be penalised when working with a complex client, or one who is struggling to engage with treatment.

While providing a rationale for not measuring client responses, the research team acknowledged that in ACT it is particularly important for the clinician to be responsive to the client's behaviours. We therefore proposed an item for the ACT consistent Therapist stance section to try to capture this: 'Therapist shows awareness of client's responses to the therapist's behaviour and consequently adjusts their own behaviour accordingly.'

Comments on how ACT focuses on function, not form

Panel comments. Two participants made comments on how it is the function of the therapist's behaviour that is important, not just demonstrating the behaviour, i.e. it is not just what the therapist does, but why. One participant advised to avoid making absolute statements when creating a tool rooted in functional contextualism. They gave the example of 'Therapist does not lecture', and noted that there may be times when it is functional for the therapist to lecture.

Research team's discussion and decisions. The research team discussed these comments in the context of ACT literature that does indeed emphasise the importance of the function of behaviours (e.g. Harris, 2009). ACT is founded in functional contextualism (Hayes, Hayes, Reese & Sarbin, 1993), which looks at how things function in specific contexts. For example, a therapist could demonstrate a behaviour that appears to be consistent with ACT, but functionally is not. The research team recognised the importance of this and had discussions about how this could be incorporated. To rate every item for its function rather than form would require the rater to complete a functional analysis for every therapist behaviour. This could be captured by adding 'when in the service of valued living' to the end of ACT consistent items to ensure that the therapist technique is ACT consistent functionally as well as in form.

The research team also had discussions about how the techniques and procedures based on the processes defining ACT are also important and relevant (Hayes et al., 2004). ACT aims to increase psychological flexibility which does delineate some helpful ways of interacting with experiences, which can be reflected in specific therapist behaviours. The research team therefore decided not to add 'when in the service of valued living' to the end of every item as requiring the rater to complete a functional analysis for every therapist behaviour may be too time consuming and the rater may not always have all of the information about the context to be able to work out the function of the therapist behaviour. Additionally, the repetition of adding 'when in the service of valued living' to every item might cause the phrase to become

overlooked or lose its meaning (much like the ‘milk, milk, milk’ exercise within ACT; Hayes, Strosahl & Wilson, 1999, p.154).

Nonetheless, recognising the weight of these comments, the research team settled upon a couple of updates. Firstly, we proposed some items to the Therapist Stance section to try to capture how well the therapist is aware of the function, e.g. ‘Therapist gives the client opportunities to notice the effectiveness of their behaviours (i.e. whether behaviours help/helped them to achieve results consistent with their values).’ Secondly, we added to the manual that 1) clinical judgement is needed when scoring, 2) the rater will need to bear the context of the therapy session in mind and consider the function of the therapist behaviour and 3) the measure is designed to be used by clinicians who are experienced in ACT and understand the principles of the approach. The research team discussed the comment about avoiding absolute statements and edited any descriptions and items with absolute statements in response to this.

Definitions of Therapist Stance and Open, Aware and Engaged response styles

Panel comments. The proposed manual used quotations from existing literature to define the sections of the measure. Three participants commented on how this needs to be made clearer. One participant commented that the quotations were distracting and that it would be more useful to describe the terms in common English. One participant commented that it would be useful to have descriptions or examples of therapist behaviours for the stance and Tri-flex areas.

Research team’s discussion and decisions. The research team discussed these comments and acted upon them. The descriptions of the sections were written clearly, without quotations and with descriptions of possible therapist behaviours.

Other comments

Minor changes to the manual were also suggested and acted on. For example, including that the therapy sessions may be viewed as well as listened to and being clear that the measure may be used to rate other clinicians or to rate one’s own recording.

Item ratings and analysis

Participants were presented with the initial item pool and asked to rate each item according to three questions, 1) ‘How well does this item capture the above ACT concept?’, 2) ‘How observable is this therapist behaviour?’ and 3) ‘Do you think this item should be included in the final measure?’ on a 7 point Likert scale (where 1=not at all, 7=definitely). We were most interested in the response to the final question as we wanted the panel’s opinions to justify each item’s inclusion or exclusion. As our consensus criteria was set at 80% of participants rating the item as a 6 or 7, any items that did not achieve this were not kept in their original form. They were either edited in response to suggestions from participants, or they were deleted if there were no suggestions to improve the item. Some of the items with high ratings were also

edited in response to comments from the panel if the research team agreed that the suggestions would improve the item based on their clinical experience and ACT literature. New items were added that were suggested by the panel and some new items were generated by the research team in response to comments made by the panel that highlighted a need. Table 5 outlines the percentage of participants rating each item as a 6 or 7 for the final question, along with the mean score achieved by each item for all three questions, and the decision made by the research team regarding whether to keep, edit or delete each item.

The results for the question ‘how well does this item capture the above ACT concept’ appeared less useful as the way that participants interpreted this question for the ACT inconsistent items varied. For example, an ACT inconsistent item in the Engaged response style section ‘Therapist imposes their own, other’s or society’s values upon the client (i.e. suggests what the client should or should not value)’, was scored as a ‘1= not at all’ three times, as a ‘7= definitely’ six times and as a ‘6= almost definitely’ three times. The research team hypothesised that some participants had answered the question with regards to whether it fits consistently with an Engaged response style and other participants had answered it with regards to whether it fits with the opposite of an Engaged response style.

Even though the data was less meaningful, the research team felt that it was still useful to include the first two questions. It meant that when giving their opinion on the inclusion of the item, participants were holding in mind useful characteristics about the ACT concept and how observable the therapist’s behaviour is.

Feedback to panel

A document was prepared for the panel outlining the scores for each item and the research team’s decision of either keeping, editing, removing or adding each item. Each item was illustrated with a distribution graph. This is available in appendix C.2.

Table 5. Table to show the mean score (and standard deviation) for each item that was presented in the first round of the Delphi study and the percentage of participants scoring each item as a 6 or 7 for ‘should this item be included?’

	Mean score for ‘ how well does this item capture the ACT concept?’	Mean score for ‘ how observable is this therapist behaviour?’	Mean score for ‘ should this item be included in the final measure?’	Percentage of participants scoring this item as 6 or 7 on ‘ should it be included?’	Decision
Therapist stance – ACT consistent					
5. Therapist explicitly notices and points out psychologically flexible responses on the part of the client (open/non-avoidant, aware/in contact with present, actively aligned with goals and values).	6.77 (0.44)	6.46 (0.78)	6.62 (0.51)	100	Edited
6. Therapist encourages or shows appreciation for new or developing psychologically flexible behaviour on the part of the client.	6.66 (0.65)	6.16 (0.84)	6.42 (0.90)	92	Deleted
4. Therapist demonstrates interest in the client’s situation and psychological experiences.	6.38 (0.77)	6.15 (0.69)	6.31 (0.95)	85	Kept
2. Therapist states or demonstrates a posture of equality i.e. “we both struggle”.	6.08 (1.04)	6.08 (0.95)	5.85 (1.14)	69	Edited
3. Therapist states or demonstrates understanding that client’s circumstances are experienced as difficult (and of the emotions and thoughts that occur in this context).	5.54 (1.56)	5.92 (1.32)	5.58 (1.73)	50	Edited
1. Therapist states explicitly that they have confidence in the client’s ability to make change.	4.69 (1.38)	5.92 (1.32)	4.38 (1.12)	15	Deleted
Therapist stance – ACT inconsistent					
5. Therapist rushes to reassure or diminish “unpleasant” or “difficult” thoughts and feelings when these arise.	4.92 (2.75)	6.08 (0.95)	5.92 (1.78)	83	Edited
4. Therapist over-rides client goals.	4.62 (2.63)	6.00 (1)	5.31 (2.02)	62	Deleted
3. Therapist uses coercion or attempts to persuade the client.	5.00 (2.38)	5.69 (0.85)	5.15 (1.99)	62	Edited
1. Therapist presents a posture of superiority or authority.	4.85 (2.41)	5.54 (1.05)	5.08 (2.14)	62	Edited
2. Therapist lectures the client.	4.92 (2.40)	5.85 (1.07)	5.23 (1.83)	54	Edited
6. Therapist facilitates sense-making or literal understanding above pragmatic action.	4.38 (1.98)	5.00 (1.22)	4.77 (1.88)	38	Edited

Open response style – ACT consistent						
2.	Therapist facilitates the observing/describing of thoughts and feelings on the part of the client.	6.69 (0.48)	6.46 (0.78)	6.69 (0.48)	100	Kept
1.	Therapist encourages the client to adopt an open and accepting stance to thoughts, feelings and bodily sensations.	6.69 (0.48)	6.23 (1.17)	6.54 (0.66)	92	Kept
3.	Therapist models the observing/describing of thoughts and feelings in their own experience.	6.62 (0.51)	6.69 (0.48)	6.15 (1.34)	92	Kept
5.	Therapist helps the client notice that psychological experiences (thoughts and feelings) are not by themselves causes of actions.	6.64 (0.67)	6.18 (1.17)	6.27 (1.01)	82	Edited
4.	Therapist helps the client to notice that thoughts are separate from the events they describe.	5.92 (1.44)	6.15 (0.90)	5.85 (1.46)	77	Edited
Open response style – ACT inconsistent						
3.	Therapist facilitates detailed discussion of whether client’s thoughts are true or accurate.	5.00 (2.27)	6.46 (0.66)	5.69 (1.80)	69	Edited
1.	Therapist encourages the client to enact behaviours as a means to control or diminish distress (or other emotions).	4.54 (2.57)	6.23 (0.93)	5.46 (1.39)	54	Edited
2.	Therapist encourages the client to “think positive” or to substitute negative for positive thoughts.	5.15 (2.51)	6.38 (0.87)	6.08 (1.44)	43	Edited
Aware response style - ACT consistent						
9.	Therapist encourages the client to notice labels/evaluations/stories that they attach to themselves (conceptualised self).	6.54 (0.66)	6.67 (0.65)	6.54 (0.66)	92	Edited
1.	Therapist directs the client’s attention to the thoughts, feelings and bodily sensations that are present now.	6.54 (0.88)	6.54 (0.66)	6.46 (0.97)	85	Kept
3.	Therapist helps the client to take an observer perspective on thoughts and feelings.	6.17 (1.03)	5.92 (1.16)	6.25 (0.97)	83	Edited
7.	Therapist uses distinction (e.g. “I am separate from/bigger than...”) or hierarchical (“I contain/hold...”) framing in relation to self and perspective.	6.31 (0.95)	6.08 (1.32)	5.92 (1.55)	77	Deleted
2.	Therapist uses present-moment-focus tasks (mindfulness tasks) to increase awareness of the moment including thoughts and feelings.	6.08 (1.12)	6.54 (0.88)	5.77 (1.48)	69	Edited
4.	Therapist helps the client notice deviations from present moment focus.	5.92 (1.83)	6.42 (0.99)	5.75 (1.71)	67	Edited
5.	Therapist helps the client to identify the situation elements (thoughts, feelings, sensations, memories, urges) that can exert influence on behaviour.	6.08 (0.90)	6.42 (0.79)	5.5 (1.68)	67	Deleted
6.	Therapist helps the client to identify potential behavioural choices and their consequences.	5.83 (1.19)	6.33 (0.78)	5.75 (1.48)	58	Deleted
8.	Therapist encourages the client to shift to a different perspective (for, example, an older or younger self, another person).	5.38 (1.56)	6.38 (0.87)	5.08 (1.98)	46	Edited

Aware response style - ACT inconsistent						
1.	Therapist introduces or uses mindfulness and/or self-as-context ideas as methods to control, diminish or distract from, unwanted thoughts, emotions and bodily sensations.	5.38 (2.53)	5.92 (1.38)	6.08 (1.66)	85	Edited
2.	Therapist uses mindfulness and/or self-as-context exercises used to challenge the accuracy of beliefs or thoughts.	4.08 (2.50)	5.83 (1.47)	5.08 (2.07)	50	Edited
Engaged response style - ACT consistent						
2.	Therapist encourages the client to clarify their values (overarching desires and qualities of action).	6.62 (0.51)	6.62 (0.65)	6.69 (0.48)	100	Edited
4.	Therapist encourages the client to clearly state goals/committed actions.	6.83 (0.39)	6.75 (0.62)	6.67 (0.49)	100	Edited
3.	Therapist links behaviour change to client's personal values (i.e. emphasises that behaviour change serves the purpose of greater contact with values).	6.46 (0.78)	6.62 (0.65)	6.54 (0.88)	92	Edited
7.	Therapist helps the client discriminate personal values from social pressures and the wishes and desires of others (possibly also including the therapist).	6.46 (0.66)	6.54 (0.66)	6.31 (0.85)	92	Edited
5.	Therapist facilitates identification of specific actions in response to predictable barriers.	6 (1)	6.46 (0.66)	6.08 (0.95)	77	Edited
1.	Therapist clearly emphasises that behaviour change is the primary focus of therapy.	5.92 (0.95)	6.15 (0.99)	5.85 (0.99)	62	Edited
6.	Therapist uses hierarchical or part-whole framing to connect short term patterns of behaviour or small changes to longer term sources of satisfaction.	5.5 (1.09)	5.17 (1.75)	4.75 (1.60)	33	Deleted
Engaged response style - ACT inconsistent						
3.	Therapist imposes their own, other's or society's values upon the client (i.e. suggests what the client should or should not value).	5.25 (2.60)	6.31 (0.95)	6.23 (1.36)	92	Edited
1.	Therapist encourages activity for "activity's sake" (i.e. emphasis on activity out of the context of values).	4.85 (2.70)	6.08 (0.95)	6.08 (1.12)	85	Kept
2.	Therapist uses actions (even when this is in line with values) as a means for changing thoughts or feelings (to reduce or control unwanted thoughts, emotions and sensations).	5.23 (2.09)	5.62 (1.19)	5.31 (1.70)	62	Deleted
4.	Therapist ignores psychological experiences and coordinates a "just do it" type of responding.	5.08 (1.88)	5.46 (1.27)	5.31 (1.55)	62	Edited

Note: items that did not achieve the consensus criteria were not kept in their original form. They were either edited in response to suggestions from participants, or they were deleted if there were no suggestions to improve the item. Some of the items with high ratings were also edited in response to comments from the panel if the research team agreed that the suggestions would improve the item based on their clinical experience and ACT literature. For details on decisions for individual items, see appendix C.2.

Round two results

In round two, the participants were asked to rate each item and were given opportunities to provide comments on the manual and on each of the eight sections. All of the comments and ratings can be found in appendix D.2. First, the general comments are summarised with the research team's decisions to action them, then the process for analysing and refining individual items are summarised. Finally, the process of feeding back to the panel is outlined.

Panel comments

Comments on the manual and scoring

Fewer comments were made on the manual in the second round compared to the first, with six participants making one comment each. One participant commented that while client's responses should not be taken into account as the therapist cannot know beforehand if an intervention will work, if a client is consistently resisting or avoiding the intervention or not understanding at an experiential level, then this would be meaningful. Another participant commented that a therapist could score well on the measure by offering exercises that cover the relevant bases, but without responding to what is happening in the room. They highlight that this would be the difference between adhering to a protocol or delivering a process-based ACT intervention. Additionally, two comments were to add in more detail for the inconsistent stance/response styles and two were to point out typographical errors.

Research team's discussion and decisions

The research team discussed the first two points and noted that they were repetitious of comments in round 1. We revisited our discussions from the first round results and again weighed up the suggestions in the context of fidelity measure literature and ACT literature (Plumb & Vilardaga, 2010; Hayes et al., 2004). The research team discussed the comment on how it would be meaningful if a client was consistently avoiding an intervention. Clinically, we agreed but we were unsure of how to incorporate this into the ACT-FM without generating guidelines of when this threshold would be met. The measure was intended to be concise and quick for clinicians to use, adding complicated descriptions for different eventualities may detract from the key instructions for using the measure. Ultimately we came back to the literature (e.g. Plumb & Vilardaga, 2010) that emphasizes the importance of rating the therapist behaviour regardless of whether or not it was met with client success and we chose to give credence to this over the participant's comment.

The research team discussed the comment about the difference between delivering a protocol-based or process-based intervention. We agreed with their comment and the point is reflective of ACT literature (Hayes et al., 20014). In response to a similar comment in round 1, we added to the manual that when scoring the items, the rater needs to bear the context of the

therapy session in mind, use clinical judgement and consider the function of the therapist behaviour. We were unsure of how the ACT-FM could be developed further to capture this comment and we felt that this may be a common difficulty when developing a fidelity measure for process-based therapies. This is due to the tension between the need to identify specific therapist behaviours for items and flexibly scoring how well a therapist responds to what is happening in the room. The research team decided that the details already added in response to the first round comments addressed this comment sufficiently for the scope of the current measure.

In response to the other four comments, more details were added in the descriptions, including an example of an ACT consistent and inconsistent behaviour for clarity. Finally, the typographical errors were corrected.

Item analysis and selection

The panel were asked to rate whether they thought each item should be included in the final measure on a 7-point Likert scale (where 1= definitely do not include and 7= definitely do include). As a research team, we discussed one outlier in the data for round 2 who had rated all of the ACT inconsistent items very low (they rated all inconsistent items as 1 apart from a few items as 2 when commenting that the behaviours might be useful in some contexts). We hypothesised that they misunderstood the question and were rating how ACT consistent the items were rather than whether they thought the item should be included in the final measure. This participant's answers for the inconsistent items were therefore excluded from the analysis.

The items were ordered by agreement within each area of the ACT-FM. Each item had been identified with the area of the Hexaflex that it represents. The research team discussed each section and selected three items for each. For four out of the eight sections, these were the highest rated three items. For the other four sections, all of the highest scoring items assessed the same Hexaflex dimension or had an overlap in item similarity, therefore the next highest scoring item that assessed a different dimension or idea was chosen to ensure breadth of ACT concepts. Note that the therapist stance section does not have a corresponding Hexaflex area. The rationale for each of these decisions is outlined next and Table 6 shows each item ranked within its section with the selected items highlighted.

Decisions regarding items within each section

Therapist stance ACT consistent items. In this section, the highest scoring two items were chosen. It was the research team's judgment that the third highest scoring item was covered by other items in the measure and so opted to include the fourth highest scoring item instead. This item is about using methods in a way that is sensitive to the situation and we felt that it was important to include an item that taps into the therapist using techniques considering their function rather than a 'one size fits all' approach because of the ACT literature (e.g. Hayes

et al., 2014) and the comments from the panelists about the need to capture whether the therapist was delivering a process-based intervention.

Therapist stance ACT inconsistent items. The highest scoring three items were selected.

Open response style ACT consistent items. The highest scoring three items gave good breadth of both acceptance and defusion processes and so were chosen.

Open response style ACT inconsistent items. The highest scoring three items also gave good breadth of both acceptance and defusion processes and so were chosen.

Aware response style ACT consistent items. In this section, the three highest scoring items all mapped on to present moment. Therefore, the third highest scoring item was omitted in favour of the fourth highest scoring item which mapped on to self-as-context and therefore gave breadth of the Hexaflex processes.

Aware response style ACT inconsistent items. The research team felt that the two highest scoring items were similar. Therefore the second item was omitted in favour of the fourth highest scoring item. Each of these items maps on to both present moment and self-as-context and therefore a good breadth of Hexaflex processes were covered.

Engaged response style ACT consistent items. In this section, the three highest scoring items were all values based, so the highest scoring committed action item was selected from further down to give breadth of the Hexaflex. The research team felt that the two highest scoring items covered a similar concept, and so part of the second highest scoring item was incorporated into the highest scoring item and the second highest scoring item was then omitted for the committed action item.

Engaged response style ACT inconsistent items. The highest scoring three items gave good breadth of both values and committed action processes and so were selected.

Consensus agreement

Of the 24 items selected for the measure, 20 (83%) achieved consensus of 80% of the panel rating the item as a 6 or 7. Four of the sections achieved all three items scoring above the consensus cut off and the other four sections achieved two out of the three items scoring above the consensus cut off. The item with the lowest percentage agreement that was selected achieved 67%.

Feedback to panel

A document was developed for the panel with the item scores and anonymously summarising the comments that had been made (see appendix D.2). This was emailed to the panel with an invitation to the third and final round.

Table 6. Table to show percentage of participants rating each item as a 6 or 7 and the mean (and standard deviation) for each item that was presented in the second round of the Delphi. Chosen items are highlighted.

Hexaflex area	Therapist Stance - ACT Consistent items	% rating 6 or 7	MEAN (SD)
N/A	5. Therapist demonstrates a willingness to sit with the client's painful thoughts and feelings and the situations that give rise to these.	90	6.8 (0.63)
N/A	4. Therapist conveys that it is natural to experience painful or difficult thoughts and feelings when one is in circumstances such as those experienced by the client.	90	6.4 (0.97)
N/A	3. Therapist highlights psychologically flexible responses on the part of the client (i.e. open/ centred/ actively aligned with goals and values).	80	6.1 (1.20)
N/A	12. Therapist uses experiential methods (e.g. exercises and metaphors) that are sensitive to the situation.	70	6.4 (1.07)
N/A	1. Therapist states or demonstrates a posture of equality (e.g. "we both struggle" or "we all struggle"; or shares a personal example that is contextually relevant).	70	6.3 (0.95)
N/A	13. Therapist admits mistakes, weaknesses, and limits of knowledge.	70	6.1 (1.29)
N/A	11. Therapist gives the client opportunities to notice the consequences of their behaviours.	70	5.6 (1.71)
N/A	6. Therapist helps the client to notice the array of behavioural choices that they have in a given situation	70	5.8 (1.14)
N/A	8. Therapist's behaviour is warm, empathic and encouraging	60	5.8 (1.4)
N/A	10. Therapist gives the client opportunities to notice the effectiveness of his or her behaviours in relation to their own goals or values (i.e. whether behaviours help/helped them to achieve results consistent with their values).	50	6.2 (1.14)
N/A	2. Therapist demonstrates interest in the client's situation and psychological experiences.	50	5.5 (1.35)
N/A	9. Therapist shows awareness of client's responses to the therapist's behaviour and consequently adjusts their own behaviour accordingly.	50	5.3 (1.49)
N/A	7. Therapist acknowledges that the client makes his or her own choices.	40	5.5 (1.18)

Hexaflex area	Therapist Stance - ACT Inconsistent items	% rating 6 or 7	MEAN (SD)
N/A	3. Therapist rushes to reassure, diminish or move on from “unpleasant” or “difficult” thoughts and feelings when these arise.	100	6 (1.83)
N/A	5. Therapist methods/clinical conversations are at a conceptual level (i.e. therapist emphasises verbal understanding of concepts rather than experiential methods and behaviour change).	89	6 (1.89)
N/A	1. Therapist lectures the client (e.g. gives prolonged advice and/or explanations).	78	5.8 (1.87)
N/A	2. Therapist uses coercion (i.e. attempts to coordinate new behaviours simply via their consistency with the therapist’s verbal direction).	78	5.7 (1.83)
N/A	6. Therapist takes the role of expert regarding the client’s own experiences and circumstances.	67	5.6 (1.84)
N/A	4. Therapist conveys sense-making or literal understanding (i.e. aligning beliefs with an objective reality) as a primary goal of therapy.	44	5 (1.94)
Hexaflex area	Open Response Style - ACT Consistent items	% rating 6 or 7	MEAN (SD)
D	5. Therapist gives the client opportunities to notice how they interact with their mind (e.g. when they are struggling with thoughts and feelings, or are allowing thoughts and feelings to be there).	100	6.8 (0.42)
D	4. Therapist helps the client to notice thoughts as separate experiences from the events they describe.	100	6.7 (0.48)
A	9. Therapist encourages the client to “stay with” painful thoughts, feelings and emotions, in the service of their values.	100	6.7 (0.48)
A	1. Therapist encourages the client to adopt an open and accepting stance towards thoughts, feelings and bodily sensations.	90	6.7 (0.67)
A	10. Therapist gives the client opportunities to move towards or deeper into experiences they have previously avoided.	90	6.6 (0.70)
A	7. Therapist helps the client to observe / describe their thoughts, feelings and bodily sensations.	90	6.4 (0.70)
D	6. Therapist guides the client to notice that psychological experiences alone do not have the capacity to cause actions.	90	6.2 (0.92)
A/D	8. Therapist gives the client opportunities to take a non-judgemental stance towards their thoughts and feelings.	80	6.2 (1.03)
A	11. Therapist gives the client opportunities to replace avoidant behaviours with any variety of other behaviours that are not avoidant in quality while in the same situation.	70	5.8 (1.23)
A/D	3. Therapist models the observing/describing of thoughts and feelings in their own experience.	60	5.8 (1.03)

A/D	2. Therapist facilitates the observing/describing of thoughts and feelings on the part of the client.	60	5.7 (1.57)
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Hexaflex area	Open Response Style - ACT Inconsistent items	% rating 6 or 7	MEAN (SD)
D	2. Therapist encourages the client to “think positive” or to substitute negative for positive thoughts as a treatment goal.	100	6.3 (1.89)
A	1. Therapist encourages the client to control or to diminish distress (or other emotions) as the primary goal of therapy.	100	6.2 (1.55)
D	4. Therapist encourages or reinforces the view that fusion or avoidance are implicitly bad, rather than judging them on basis of workability.	89	6.1 (1.91)
A	5. Therapist rushes to reassure, diminish or move on from “unpleasant” or “difficult” thoughts and feelings when these arise.	78	5.9 (1.91)
D	3. Therapist facilitates detailed discussion of whether client’s thoughts are aligned with an objective external truth (i.e. seeking essential coherence as opposed to functional coherence).	78	5.6 (2.27)
D	6. Therapist conveys sense-making or literal understanding (i.e. aligning beliefs with an objective reality) as a primary goal of therapy.	55	5.2 (1.87)
D	6. Therapist guides the client to notice that psychological experiences alone do not have the capacity to cause actions.	90	6.2 (0.92)
A/D	8. Therapist gives the client opportunities to take a non-judgemental stance towards their thoughts and feelings.	80	6.2 (1.03)
A	11. Therapist gives the client opportunities to replace avoidant behaviours with any variety of other behaviours that are not avoidant in quality while in the same situation.	70	5.8 (1.23)

Hexaflex area	Aware Response Style - ACT Consistent items	% rating 6 or 7	MEAN (SD)
PM	4. Therapist helps the client to notice the stimuli (thoughts, feelings, situations) that hook them away from the present moment.	100	6.7 (0.48)
PM	2. Therapist uses present-moment-focus exercises (e.g. mindfulness exercises) to increase awareness of the moment including thoughts and feelings.	100	6.6 (0.52)
PM	1. Therapist directs the client’s attention to the thoughts, feelings and bodily sensations that are present now.	100	6 (0.50)
SAC	10. Therapist helps the client to experience that they are bigger than or contain their psychological experiences.	90	6.5 (0.97)
SAC	3. Therapist helps the client to notice the self as distinct from the thoughts and feelings occurring in the moment (e.g. guides the client to take an observer perspective on psychological experiences).	80	6.5 (0.85)
PM	8. Therapist helps the client to track when they move away from being in the present moment.	80	6.3 (0.82)

SAC	7. Therapist helps the client to notice choices over their actions in the presence of whatever psychological experiences (thoughts and feelings) are present.	80	6.2 (0.79)
SAC	6. Therapist encourages the client to notice when they are attaching labels / evaluations / stories to themselves (e.g. conceptualised self).	70	5.9 (1.20)
SAC	5. Therapist gives the client opportunities to shift to a different perspective (for example, an older or younger self, the observing-self, or another person).	60	5.9 (1.10)
PM	9. Therapist directs the client to notice the thoughts and feelings that arise in a certain context or situation.	60	5.7 (1.34)

Hexaflex area	Aware Response Style - ACT Inconsistent items	% rating 6 or 7	MEAN (SD)
PM/SAC	1. Therapist introduces or uses mindfulness and/or self-as-context exercises as methods to control or diminish unwanted thoughts, emotions and bodily sensations.	100	6.4 (1.58)
PM/SAC	3. Therapist reinforces client behaviours where mindfulness and/or self-as-context methods are used as means to control, diminish or distract from unwanted thoughts and feelings.	100	6.3 (1.89)
PM/SAC	5. Therapist introduces mindfulness or self-as-context exercises as formulaic exercises.	89	5.8 (1.81)
PM/SAC	2. Therapist introduces or uses mindfulness and/or self-as-context exercises to challenge the accuracy of beliefs or thoughts.	67	5.4 (1.71)
SAC	6. Therapist addresses self as a matter of belief or “knowing in the mind”.	33	4.3 (1.89)
SAC	4. Therapist encourages perspective taking as a moral imperative or social rule.	33	4.3 (2.16)

Hexaflex area	Engaged Response Style - ACT Consistent items	% rating 6 or 7	MEAN (SD)
V	2. Therapist gives the client opportunities to clarify their values (overarching life goals and qualities of action).	100	6.9 (0.32)
V	6. Therapist helps the client to discriminate personal values from social pressures/social norms and the wishes and desires of others (possibly also including the therapist).	90	6.5 (0.71)
V/CA	1. Therapist emphasises that changing behaviour to enable greater consistency with values is a focus of therapy.	90	6.5 (0.71)
V/CA	8. Therapist explores distinction between short-term and long-term consequences of behaviours.	90	6.5 (0.71)
V/CA	5. Therapist directs the client to notice barriers to values-based actions and helps the client notice patterns of workable/unworkable responses	90	6.5 (0.97)

V/CA	4. Therapist gives the client opportunities to clearly state goals/committed actions in pursuit of values.	90	6.4 (0.70)
V/CA	10. Therapist helps the client to identify different values-based actions they might take in the presence of potential barriers.	90	6.4 (0.97)
V/CA	3. Therapist helps the client to link their behaviour change to their personal values (i.e. therapist emphasises that behaviour change can serve the purpose of greater contact with values).	80	6.4 (1.07)
CA	12. Therapist helps the client to make plans and set goals likely to meet reinforcing consequences or otherwise shape effective action.	80	6.2 (1.03)
CA	9. Therapist draws client's attention to previous or on-going examples of committed action which client has not seen in those terms.	70	6.1 (0.88)
V	11. Therapist helps the client to see the connection between consequences experienced or available and their stated values.	60	5.6 (1.35)
V/CA	7. Therapist encourages client to differentiate positive from negative reinforcement in identifying values.	50	5.3 (1.49)

Hexaflex area	Engaged Response Style - ACT Inconsistent items	% rating 6 or 7	MEAN (SD)
V	2. Therapist imposes their own, other's or society's values upon the client (i.e. suggests what the client should or should not value or what valuing something should look like).	89	6.1 (1.91)
CA	4. Therapist encourages the client's proposed plans even when there are clear impracticalities (e.g. clearly excessive goals).	89	5.5 (1.96)
CA	3. Therapist coordinates a "just do it" type of responding; i.e. encourages action without first hearing or exploring, showing curiosity regarding the client's psychological experiences (e.g. painful thoughts feelings and emotions) when undertaking new activities.	78	5.9 (1.91)
V/CA	1. Therapist encourages activity for "activity's sake" (i.e. emphasis on increasing activity out of the context of values).	78	5.7 (1.49)
V/CA	5. Therapist encourages goal-directed activity that is not in the context of values (i.e. behaviour is about achieving a particular goal, which is not explored in the context of values).	78	5.6 (1.90)

Note: D=defusion, A=acceptance, PM=present moment, SAC=self-as-context, V=values, CA= committed action. Where possible, the highest rated three items were selected. Where the highest scoring items assessed the same Hexaflex dimension or had an overlap in item similarity, the next highest scoring item that assessed a different dimension or idea was chosen to ensure breadth of ACT concepts.

Round three results

Participants were emailed with a .pdf of the ACT-FM and a link to the final BOS. They were asked to provide comments and suggestions on the manual and scoring, the items, the appearance/layout/usability of the measure and any other comments. These are summarised with the resulting changes to the measure, details of the revised items and a summary of the final feedback to the panel.

Panel comments

Comments on the manual and scoring

Panel comments. Six participants commented that they did not have any suggestions for changes. One participant raised the discussion about how the manual outlines that the therapist's behaviour should be scored irrespective of the client's response, and that a therapist's behaviour might not seem ACT consistent but if it leads to the client showing higher psychological flexibility then it was a pragmatic behaviour.

Another participant made a few comments. They suggested that the descriptions for the different areas could be presented in a table with an example of an item for each, rather than just an example for one area. Other comments were to add clarity to the wording of the scoring system and grammatical changes.

Research team's discussion and decisions. The research team discussed the comment on how the therapist's behaviour should be scored irrespective of the client's response and noted that this had been raised at each of the three rounds. Although fidelity literature emphasizes the importance of rating the therapist behaviour regardless of whether or not it was met with success on the part of the client (e.g. Plumb & Vilardaga, 2010), we felt that the wording in the manual could be softened slightly to reflect the persistence of these comments. The wording was therefore developed from "The clinician's behaviour should be scored irrespective of how the client responded to the clinician's attempt" to "The focus of this measure is on the therapists behaviour". The research team felt that this wording keeps the focus of scoring on the therapist's behaviour but is a less absolute statement.

In response to the other participants comments, the manual formatting was edited. However, displaying the descriptions in a table with an example of a consistent and inconsistent item for each lengthened the manual to over one page. As the ACT-FM is intended to be quick and practical to use, we prioritised keeping the manual on one page and edited the wording to make it clearer that the existing example is just for one section.

Comments on the items

Panel comments. Seven participants commented on the items. Five of the comments were to state that they are in agreement with them. One participant commented with minor

suggestions to two of the items and another participant commented on the need to add in an item getting at workability exploration and/or functional analysis. They commented that without including a workability item a therapist could score highly who was using ACT compatible techniques but in a way that was “throwing techniques at a problem”.

Research team’s discussion and decisions. The research team discussed the comment on functional analysis/workability and felt that it was an important point, especially as a comment on ensuring the measure gets at function was raised at each round. The items introduced in response to a similar comment in round 1 were not scored high enough in round 2 to be included in the final measure. The research team referred back to the data from round 2 and found an item on workability that achieved consensus with 90% of the panel rating it as a 6 or 7 in the ACT consistent Engaged response style section (item 5 in table 6). After a discussion, we agreed to simplify the item to make it purely about workability and to include it instead of item 1, as we felt that item 1 was similar to item 2 which achieved a higher score (see Engaged response style consistent section of table 6 for details). We therefore added in the following item in the ACT consistent Engaged response style section: “Therapist gives the client opportunities to notice workable and unworkable responses (i.e. whether their actions move them towards or away from their values).”

Additionally, the research team discussed how item 1 in the Therapist stance ACT consistent section (appendix D.3) taps into the therapist using ACT processes in an way that is sensitive to the situation, i.e. as opposed to “canned” ACT interventions or throwing techniques at a problem without considering the context/function. This item reads “Therapist uses experiential methods (e.g. exercises and metaphors) that are sensitive to the situation.”

Comments on the appearance/layout/usability of the measure

Panel comments. Eight participants commented on the layout. Five of the comments were to say that it appeared easy to use and they had no suggestions. One participant recommended that we check the readability with a small panel. One participant commented on how the items are numbered (running through the ACT consistent items first then the ACT inconsistent items) and made a suggestion to re-number them in a more logical way (running through each section with the ACT consistent item and ACT inconsistent items, then moving on to the next section). Another participant suggested to add information to capture how the session was rated (direct observation, audio or video recording) and the name and qualification of the person doing the recording.

Research team’s discussion and decisions. The research team noted the comment on checking the readability with another group, and discussed that this would be achieved through the field study. The research team considered the comment on re-ordering the items and agreed that it made more sense. The suggestions to add more information capturing how the session was rated were added in.

Other comments

Six participants left comments in this section. One participant recommended that we ask a panel of laypeople to provide feedback on the measure. Five participants left positive comments about the project being a valuable piece of work and a worthwhile project and tool.

Refined item results

While one of the items was exchanged within the ACT consistent Engaged response style section, both items met the consensus cut-off so there was no change from the consensus results from round 2 (83% of items achieved consensus of 80% of the panel rating the item as a 6 or 7). Of the eight sections, four had all three items meeting consensus cut off, and four sections had two of the three items meeting consensus cut off. Four of the eight sections were comprised of the top rated three items and the other four sections contained at least 1 item that was rated further down. Of the 24 items selected for the final measure, none were identical to the items proposed by the research team in round 1.

Feedback to panel

A document was developed for the panel anonymously summarising the comments from the third round (see appendix D.5). This was emailed to participants along with a final version of the ACT-FM after the field study for their use (appendix F.3).

Delphi study discussion

Summary of findings

The aim of the first part of this thesis was “Through expert consultation in a Delphi study, to develop a measure of therapist fidelity to ACT, including a manual and items that cover a breadth of ACT processes (three ACT consistent and three ACT inconsistent items for each area of the Tri-flex and therapist stance).” This aim has been achieved and the ACT-FM produced at the end of the Delphi can be found in appendix E.4.

Of the 24 items selected for the ACT-FM (3 for each of the 8 sections), 20 items (83%) achieved consensus of 80% of the panel rating the item as a 6 or 7 in response to how much they think the item should be included in the final measure (where 1= definitely do not include, 7= definitely do include). Four of the sections achieved all three items scoring above the consensus cut off and the other four sections achieved two out of the three items scoring above the consensus cut off (with one item in each section below the cut off). Two of these were just below the cut off at 78%, one was at 70% and the lowest percentage agreement was 67%. No section had more than one item below the cut off, so the items not meeting the specified consensus criteria were spread across different sections, suggesting that there was not a particular section with less agreement. While some items did not meet consensus criteria, the

research team discussed the need to balance the consensus methodology with creating a measure that covered the required areas within ACT.

Evaluation of the method

The expert panel

The demographic details illustrate how highly experienced the panel was, with 50% of participants recognised as a peer reviewed trainer by the ACBS in each round and an average of 11 years' experience using ACT in each round. We can be confident that we recruited an expert sample while maintaining diversity in terms of gender, geographical location, client group and clinical and research based work.

Recruiting an expert panel increases the validity of the findings as validity increases with the participant's knowledge and interest on the topic under question (Goodman, 1987). Dalkey (1969) states that panellist's knowledge of the subject matter is the most significant parameter in the Delphi method. The basis of the Delphi method is the assumption of safety in numbers (Hasson et al., 2000), in that a group of people are less likely to arrive at a wrong decision than an individual. Of the 24 items selected for the final measure, none were identical to the items proposed by the research team in round 1. Additionally, aspects of the manual were developed e.g. the scoring system and descriptions of the areas in the measure. This implies that the Delphi method was successful in structuring group communication to enable the creation of a fidelity measure with higher validity than the measure the research team originally generated.

Methodology of the Delphi

There are some general guidelines for the use of the Delphi method in psychology (Iqbal & Pison-Young, 2009), but no gold standard guidelines have been published, resulting in a large variation in how the method is applied. We believe that there is a need for clearer guidelines for researchers aiming to conduct a Delphi, perhaps with something along the lines of CONSORT guidelines used in RCTs.

Earley (2015) developed quality criteria for his thesis, which we have rated the methodological quality of the current Delphi against in table 7. As far as we can see, we believe that each of the specified quality criteria was clearly reported in the current study.

Table 7. Reporting quality criteria checklist developed by Earley (2015) applied to the current study.

Aspect of reporting		Specific items for which the reporting quality was assessed	Score attained
Preparation	1	Research question/aims	2
	2	How items were generated for first questionnaire	2
Participants	3	Number of participants invited	2
	4	Characteristics of participants	2

Delphi methodology	5	How participants were identified/sampled	2	
	6	Administration of questionnaires (e.g. postal, email)	2	
	7	Information provided to participants prior to the first round	2	
	8	Analysis of qualitative data, if applicable	2	
	9	Details of rating scale, if applicable	2	
	10	What was asked in each round	2	
	11	Feedback to participants after each round	2	
	12	Level of anonymity	2	
	13	A priori definition of “consensus” about whether an item should be measured/dropped	2	
	Results	14	Number of respondents invited to each round	2
		15	Number who completed every round	2
		16	Results/distribution for each item scored in each round	2
		17	List of all items that participants agreed should be considered	2

Scale: 2= clearly reported, 1= partially reported, 0 =not reported/not applicable

Consensus criteria

Although not all of the items achieved the specified consensus cut off in round 2, Diamond et al. (2014) recommend that researchers should consider including items that fall just below the threshold if they are believed to be important and if justification is provided. The research team discussed how the agreement of items was good enough for our purposes, especially considering there is no agreement in the literature on the definition of consensus (Von der Gracht, 2012). It was felt that the cost of undertaking another round to aim to achieve all items at our specified consensus criteria outweighed the benefits. There would be no guarantee that items would meet the criteria and the items were presented to the panel in the ACT-FM form for the third round, allowing the panel to suggest any last refinements to the items. We considered the impact of sample fatigue as the panel had already dedicated a large amount of time to the project and we considered the need to keep the thesis project workable and focused. The extra time spent on an additional round refining the items may have impacted the scope to complete the field study, which we prioritised because of the need to ensure the ACT-FM is practically useful and reliable.

Although consensus is often stated as the aim of the Delphi process, definitions of consensus vary widely and are poorly reported (Diamond et al., 2014). In their review, Diamond et al., (2014) found that achievement of consensus was the stop criterion in 23 of studies, but 70 studies chose to stop after a specified number of rounds. Indeed, Linstone and Turoff (2011) state that the “Delphi is a method for structuring a group communication process, not a method aimed to produce consensus” (p.1714). This suggests that it is acceptable that we stopped the consensus ratings in round 2 as round 3 was used more productively gaining qualitative feedback rather than repeating rating the items.

Von der Gracht (2012) and Linstone and Turoff (2011) highlight the importance of group stability and suggest that the rounds should end when panellists responses are consistent over rounds. With our data, the items developed over the rounds; comments and suggestions made by the panel resulted in items being updated accordingly. Therefore, to continue until responses were stable would mean undertaking two rounds with the same final items. This would have required more time and energy (on both the researchers and participants behalf) and the costs may have outweighed the benefits as it may have impacted on the scope to complete the field study. Particularly because the literature on Delphi methodology is so varied with no identified 'gold standard' guidelines, so the aim of reaching stability is a matter of opinion. Indeed, Linstone and Turoff (1975) suggest that commonly, any more than three rounds tends to show little change as a point of diminishing returns is reached. They highlight how "excessive repetition was unacceptable to the participants" (Linstone & Turoff, 1975, p.229).

Deviations from the Delphi method for this study

Typically, in a Delphi study the panelist's opinions and ratings directly inform the results. However, in the current study there were a couple of aspects in which the research team was required to filter the results in the context of literature on ACT and fidelity measures. This was to ensure that the developed measure was in line with best practice for fidelity measures and consistent with ACT theory, covering a breadth of ACT processes.

Tension between the panel's opinions and literature on ACT and fidelity measures.

The panel members made comments and suggestions to improve the ACT-FM, which were all discussed by the research team. Many of these suggestions were in line with the literature and the research team could action them to improve the measure. For example, suggestions to make the rating scale clearer, avoiding absolute statements and re-wording the descriptions of therapist stance and Tri-flex processes.

However, some suggestions made by the panel may not have been consistent with the literature and the research team discussed these comments at length. We made decisions not to action some comments. For example, the suggestion that ACT inconsistent items are not necessary was in contradiction of fidelity measure literature which recommends their inclusion (e.g. Waltz et al., 1993; Plumb & Vilardaga, 2010). Therefore, the items were not taken out, however the comments did provoke the research team to add a rationale for why they were included into the manual.

Another example of a suggestion that we did not fully action were the comments about how the client's response to a behaviour is important, not just the therapist's behaviour. While the research team acknowledged that this was important, we discussed it at length and came back to literature on developing fidelity measure that emphasises that only the therapist's behaviour should be scored (e.g. Plumb & Vilardaga, 2010). While we did not extend the

measure to include clients' responses, we did soften the language used in the manual to make it less absolute.

Balance between the panel's ratings and ensuring a breadth of coverage of ACT processes. The items were ordered by consensus agreement, however the items were structured within their therapist stance and Tri-flex sections rather than being altogether, and even within their sections, the top scoring three items were not necessarily chosen. The research team considered this a necessary adaptation to ensure that the included items covered a breadth of ACT processes without significant overlap. If we had developed the measure led completely by the panels' ratings (i.e. taking the top 24 rated items from all items), it may be that some items were repetitious of each other and that some ACT processes were overly represented or not represented. Therefore, we considered it necessary to impose the structure.

Limitations

While anonymity is a key principle of the Delphi, it has been critiqued as it may lead to a lack of accountability of panel's expressed views and may result in hasty judgments (Sackman, 1975) or a lack of commitment (Mitchell, 1991). However, the thoroughness of the comments provided by the panel suggests that they did not make hasty judgments and the acceptable levels of attrition suggest adequate commitment to the research. Additionally, the Delphi method overcomes critiques of other methods that do not provide anonymity as it reduces the influence of dominant participants.

It could be argued that recruiting through existing contacts may bias the data. However, Delphi studies do not require a random selection of participants as they "should be chosen for their expertise rather than through a random process" (Stone Fish & Busby, 2005, p.242). Looking at the competence of the recruited participants we can be confident that they are highly qualified and diverse.

For the initial pool of items generated by the research team, some of the ACT-FM sections only had a few items to choose from. We had hoped that the panel would suggest plenty more items for these sections and that a surplus of items would be generated. However, they generated a limited number so there was only slightly more than the final number needed. If I could repeat the study I would set a minimum number of initial items, be consistent with the number of items initially suggested in each section and perhaps put more emphasis on encouraging new items from the panel.

It might have been preferable to ask the expert panel to generate an initial pool of items, as is common in some Delphi methodologies. According to Adler and Ziglio (1996), the aim of the exploration phase is to fully explore the subject under discussion and gain additional information. This is often done in the first round with open-ended questions asking the participants to generate ideas and data. Panellists may be less likely to drop out if they see their contributions represented in further rounds and feel like their expertise is being utilised

(Mitchell, 1991). To use an entirely open ended questionnaire would have taken more time and it is considered appropriate to begin with a closed questionnaire when enough information on a topic is available (Hsu & Sandford, 2007).

We opted for a mixed questionnaire, with closed questions to rate items proposed by the research team, but with ample space for participants to suggest improvements to items, add new items and general comments about the measure. This fulfils the criteria of the exploration phase and panellists could see their contributions in later rounds. If we had asked the panel to generate all of the items then it may have been the case that not all areas of the Hexaflex were represented and some areas may not have had enough items generated. The methodology chosen by the research team ensured that items covered a breadth of Hexaflex areas and these were added to and edited in response to the panels suggestions. No items from the initial pool were carried forward to the final measure without being edited; this shows how the final items were developed by the panel's opinions.

Reliability and validity

Tavana, Szabat and Puranam (2016) report that there is no evidence in the literature to indicate the reliability of the Delphi method. Test-retest reliability would be difficult to explore as a group of experts are unlikely to tolerate being given the same questionnaire twice (Stone Fish & Busby, 2015).

Validity is assumed to be related to the selection of the panel of experts (Stone Fish & Busby, 2015). While recruiting experts in ACT to develop the items and manual is likely to increase the content validity of the measure, it does not ensure that the measure is understandable and practical for all ACT clinicians to use or that it has good reliability. To address this, a field study was conducted.

CHAPTER FOUR: FIELD TEST OF THE ACT-FM

The usability and inter-rater reliability of the ACT-FM were explored in a field study. The aims of the field study were 1) to assess inter-rater reliability, 2) to attain feedback on the ease of use of the measure in order to develop it further.

Method

While developing the measure using Delphi methodology to consult a panel of experts in ACT increased the likelihood of it having high validity, further research was necessary to test its practical usability and to begin to explore its psychometric properties. This would ideally have been conducted as a large study following a similar method to Blackburn et al. (2001) who explored the psychometric properties of the CTS-R. They collected a large dataset of 102 tapes with four raters, 34 service users and 21 cognitive therapists, allowing analysis of internal reliability, inter-rater reliability, face validity and discriminant validity.

Although collecting a large data set would allow for a thorough test of the measure's psychometric properties, this was outside of the scope of this thesis. We therefore designed a smaller study that was achievable. The aims for this study were to ensure the ACT-FM was practically useful and had a reliable scoring method.

Design

A pragmatic evaluation was conducted with ACT clinicians. Participants used the ACT-FM to code a 20 minute ACT therapy video for each of the 24 items.

Participants

Inclusion criteria

For this study, it was necessary to ensure the recruited clinicians had enough ACT experience to understand the principles of the approach and a current knowledge of how to apply them clinically, but it was not necessary for them to be experts. The inclusion criteria therefore were:

- i) Clinicians who currently use ACT in their practice.
and
- ii) Clinicians with a minimum of three years' experience with ACT in a clinical and/or research capacity.

Recruitment

Opportunity sampling was used to recruit participants. The organisers of two local ACT Special Interest Groups (SIGs) were contacted by email and invited to take part. The SIGs are

comprised of local clinical psychologists who work using ACT. They meet to share learning and to offer peer supervision on ACT cases. The participant information sheet was emailed to the organisers who distributed it to members. Both groups agreed to take part and the data collection was arranged for convenient times.

Sample size

To calculate inter-rater reliability analyses, the Intra-class Correlations Coefficients (ICC) was used. Because the aim was to determine the level of inter-rater reliability, and it is not already known if the ratings are consistent, the null hypothesis was that the ICC would be equal to zero. As the total number of observations (items rated) per participant was 24, a minimum sample size of 5 raters was required to achieve the statistical significance for an alpha-value set at 0.05 and with the minimum power of at least 80% (Bujang & Baharum, 2017, table 1b).

Ethical clearance

The field study was approved by the University of Leeds School of Medicine Research Ethics Committee (Approval date: 12/02/2018, Approval ref: MREC17-007; see Appendix A.2). Participants were offered £30 for their time when taking part outside of work hours.

Participants were fully informed of the need to share answers in order to discuss items with a discrepancy in scoring. It was made clear that the emphasis was on the usability of the measure and improving ambiguous or difficult to understand items, rather than a test of their ability to rate the items 'correctly'. Because of this it was also not possible for participants to withdraw their data after taking part, and this was made clear to participants before consenting to take part.

Measures

Usability questionnaire

This questionnaire was designed specifically for this study using Microsoft Word and can be found in appendix E.5. Participants were asked to provide demographics and then rate the following questions on a 7 point Likert scale (where 1= not at all and 7=extremely); a) How easy to understand was this fidelity measure? b) How easy to use was this fidelity measure? c) How easy to use was the response format? d) Were any items particularly difficult to understand? e) Were any items particularly difficult to rate? There was space to specify items that were difficult to understand or rate and to give reasons for their answers and suggestions for improvement. They could also comment on the fidelity measure in general.

Procedure

Two ACT clinicians who organise local ACT SIGs were identified through existing contacts. They were approached via email (see appendix E.1) with the study information sheet attached (see appendix E.2) and were asked if their SIG would be interested in taking part. They distributed the information to SIG members and members from both groups agreed to take part.

Participants met with the researcher in two groups at their workplaces. They were given an information sheet and the opportunity to ask questions before consenting to take part (appendix E.3). Participants then independently became familiar with the fidelity measure developed in study 1 (appendix E.4) before rating a 20 minute therapy video. The therapy video was available online on Vimeo and was created by Dr David Gillanders (Clinical Psychologist and Peer Reviewed ACT Trainer) who models an ACT therapy session with another clinician who is role playing a client living with Irritable Bowel Syndrome. The video can be found here: <https://vimeo.com/davidgillandersactvideos>. I received permission to use the video for the purpose of testing the fidelity measure.

After rating the video, participants were invited to share their scores for each item with the group and discrepancies were discussed where there was a variation in scores. This enabled us to identify items that might be misunderstood or worded ambiguously and interpreted in different ways. Following this discussion, participants filled in the demographic form and a usability questionnaire commenting on the ease of use of the measure and identifying any items that were difficult to score with suggestions on how to improve them (appendix E.5).

Data analysis

Participant data

Participants' demographic data was calculated. This included the mean and standard deviation for number of years practicing ACT, whether they mainly work clinically, research based or a mix and which client groups participants have used ACT with.

Usability and inter-rater reliability tests

The means and standard deviations were calculated for each item on the usability questionnaire and the comments were summarised. To calculate the inter-rater reliability, the ICC was used as this is suitable for ordinal, interval and ratio variables, whereas kappa is used for nominal variables (Bujang & Baharum, 2017). ICC is a measure of reliability that reflects both degree of correlation and agreement between measurements (Koo & Li, 2016). Koo and Li (2016) outline how decisions regarding the Model, Type and Definition of the ICC should be reported.

The chosen ICC Model was “two way random” (ICC 2) because the raters were chosen randomly from a population of potential raters and all raters coded all of the items on the measure allowing it to model two effects, the effect of rater and of item (Landers, 2015).

The Type of ICC chosen was single rater rather than the mean of the raters/measurements. This is because it is more useful to gain data on each individual item for measure development (Landers, 2015).

The Definition of relationship considered to be important was ‘absolute agreement’ rather than ‘consistency’. Absolute agreement refers to different raters coding the same score for each item, whereas consistency refers to the assigned scores being correlated. Absolute agreement was chosen because for a fidelity measure, it is important not only to see if the rater’s scores correlate with each other, but if they rate items with the same score. ICC (2, 1) estimates and the 95% confidence interval were therefore calculated using SPSS version 22 (IBM, 2013) based on a single-rating, absolute-agreement, 2-way random-effects model.

Results

Participants

Response rates

In total, 10 participants were eligible and interested in taking part and 9 could attend the proposed dates. It is unknown how many participants were invited initially due to the ACT SIG organisers sending on the study information.

Sample characteristics

Seven female participants and two male participants took part. Eight participants (88%) reported mainly doing clinical work and one participant (11%) reported mainly doing research. The client groups that participants reported working with were as follows: adult physical health (5), neurological conditions (4), adult mental health (2), paediatrics (2), adult pain (1) and older adults (1). The length of experience working with ACT ranged from 3 to 10 years, with a mean of 4.7 (SD= 2.19).

Inter-rater reliability

Based on criteria given by Koo and Li (2016), ICC values less than 0.5, between 0.5 and 0.75, between 0.75 and 0.9, and greater than 0.90 are indicative of poor, moderate, good and excellent reliability respectively. The obtained ICC (2, 1) value was 0.73 indicating moderate interrater reliability. The 95% confidence interval ranges between 0.60 and 0.93, so the level of reliability at 95% confidence is moderate to excellent. SPSS output is available in appendix F.2.

Usability feedback

Ratings made by participants

The means and standard deviations were calculated for each item. Table 8 shows participants ratings of the usability of the measure and items. On a 7 point Likert scale where 1=not at all and 7=extremely, the mean scores for ‘how easy to understand was this fidelity measure’, ‘how easy to use was this fidelity measure’ and ‘how easy to use was the response format?’ were 5.22, 4.78 and 5.11 respectively. This indicates that clinicians found it fairly acceptable and usable. On the same 7 point Likert scale where 1=not at all and 7=extremely, the mean scores for ‘were any items particularly difficult to understand?’ and ‘were any items particularly difficult to rate?’ were both 3.33 indicating that the participants did find some items a bit difficult to understand and rate.

Table 8. Participants scores on the usability questionnaire.

Usability question	Mean	SD
a) How easy to understand was this fidelity measure?	5.22	1.20
b) How easy to use was this fidelity measure?	4.78	1.39
c) How easy to use was the response format?	5.11	1.05
d) Were any items particularly difficult to understand?	3.33	1.66
e) Were any items particularly difficult to rate?	3.33	1.12

1-7 Likert scale, where 1=not at all and 7=extremely

Summary of suggestions and details of the development of the ACT-FM

Typed out comments on the ease of use of the measure and difficult items with suggestions can be found in appendix F.1. A summary of comments is given here with the research team’s discussions and decisions. The ACT-FM was developed in response and the final version is available in appendix F.3.

Comments on the use of the measure and suggestions to improve it. Four participants commented on the need to emphasise the instructions to take notes during the session and score at the end and to outline the rationale for this (i.e. ratings may change). One participant noted that once they had used the measure it made sense but before beginning, they were concerned they might not be able to remember well enough to score at the end. Two participants recommended that the bullet points in the manual on ‘how to use the ACT-FM’ could be ordered more clearly.

Two participants commented on how they had perceived the ACT consistent and inconsistent items would be opposites of each other, but that this was not the case. They recommended for this to be clarified in the manual. One participant commented on how some processes will not be done within one therapy session and so the therapist might appear less

competent. One participant commented that some of the items overlap and they were not sure if they should find the most suited item to score an observed behaviour or if it could score across a couple of items. Another participant commented on how there are no items explicitly on educating the client to ACT or pointing at 'creative hopelessness'. One participant commented that they found it hard to hold it all in mind and wondered if the ACT inconsistent part could be disregarded when using the measure clinically. They also commented that ACT feels like more of an approach with implicit behaviours rather than defined specific therapist behaviours.

Research team's discussion and decisions. In response to these comments, the instructions in the 'how to use the ACT-FM' section were made more succinct and emphasised to make notes and score the session at the end. A rationale was added for this and the bullet points were formatted to be easier to read (spaced out and defined by a text box).

We added a detail to the measure to indicate the length of the therapy session that is being rated and the session number. As such, when the therapist's score is being reviewed the length of opportunity to demonstrate the skills can be taken into account as well as details such as if it is a first session. It was also clarified in the manual that the consistent and inconsistent items are not opposites of each other and that a therapist behaviour can be scored across all relevant items, not just the most suitable one. This decision was based on Plumb and Vilardaga's (2010) recommendation that the rater should not be forced to code one process at time because different ACT processes may occur simultaneously.

The research team discussed the comment about there not being items for educating the client to ACT or creative hopelessness. We acknowledged that the participant might feel that these are important aspects of using ACT in their own practice, however items along these themes were not generated by the expert panel in the Delphi study. To ensure the ACT-FM is manageable, a practical limit had to be set on the number of items. Additionally, we felt that item 19 does address creative hopelessness: "Therapist gives the client opportunities to notice workable and unworkable responses (i.e. whether their actions move them towards or away from their values)."

The research team also discussed the comment about ACT feeling like an approach with implicit behaviours rather than defined specific behaviours. This point relates to ACT literature on going with what the client brings rather than protocol-based interventions (Strosahl et al., 2004) and using experiential methods. Additionally, a therapist behaviour might be working on any of the ACT processes depending on its context and the rater is required to bear this in mind and consider the function of the behaviour. This may be difficult for less experienced ACT clinicians who are likely to initially develop skills in ACT by learning techniques to explicitly work on each of the processes. This is one of the reasons that the manual emphasises that the ACT-FM is "intended to be used by clinicians who are experienced in ACT and understand the principles of the approach" and also that the rater will need to use "clinical judgment when scoring, bearing in mind the context of the therapy session and considering the function of the

therapist behaviour”. The comment about disregarding the inconsistent behaviours when using the measure clinically is already addressed in the manual where it states “If rating the inconsistent items is not relevant for your purposes, then please feel free to omit these items” so this comment was not actioned.

Suggestions to improve items that were difficult to understand or rate. In total, 7 items were identified as difficult to understand or rate by the participants. These are outlined in table 9 with the number of participants in agreement. Participants outlined the reasons why the items identified were difficult to understand or rate and made suggestions to improve them.

Table 9. Items identified as difficult to understand or rate.

Item identified as difficult to understand or rate	Number of participants
1 Therapist uses experiential methods (e.g. exercises and metaphors) that are sensitive to the situation.	8
4 Therapist lectures the client (e.g. gives prolonged advice or tries to convince the client).	2
6 Therapist methods/clinical conversations are at an excessively conceptual level (i.e. therapist overly emphasises verbal understanding of concepts rather than experiential methods for behaviour change).	3
9 Therapist encourages the client to “stay with” painful thoughts, feelings and emotions, in the service of their values.	6
13 Therapist uses present-moment-focus exercises (e.g. mindfulness exercises) to increase awareness of the moment, including thoughts and feelings.	8
15 Therapist helps the client to experience that they are bigger than or contain their psychological experiences.	4
19 Therapist gives the client opportunities to notice workable and unworkable responses (i.e. whether their actions move them towards or away from their values).	1

For item 1, participants felt that the wording of the item led them to solely look for exercises and metaphors. They were unsure how to score the item as the therapist did use experiential processes in a way that was sensitive to the situation, but not specific exercises or metaphors as detailed in the item description. They suggested that the word ‘methods’ should be changed to ‘processes’ and that the examples in brackets should be more inclusive by adding ‘etc.’ on the end so that the rater is not limited to scoring only exercises and metaphors.

Participants suggested that the wording for item 4 was ambiguous and some participants had perceived it to mean the therapist talking for a long period of time, whereas others had interpreted that the emphasis was on *how* the therapist was talking. They suggested that the word ‘prolonged’ should be taken out to ensure that the emphasis is on the therapist lecturing the client, even if only for a short time.

For item 6, two participants suggested changing the word ‘methods’ to ‘processes’ to be more inclusive of possible therapist behaviours. Another participant suggested making it very clear that the focus is on verbalising/ intellectualising a lot.

For item 9, six participants commented on how values had not yet been discussed in the therapy video that they watched so whilst the therapist was encouraging the client to “stay with” their emotions, as a rater it was unclear if this was in the service of the client’s values. One participant suggested that this item is more about willingness than values.

For item 13, eight participants commented that the item should read ‘Therapist uses present moment focus’ without the word ‘exercises’ because an exercise is just one example of being present moment focussed. One participant commented that the example given in brackets of using mindfulness exercises would be more inclusive if it was mindfulness processes and it would include less formal techniques. Participants commented that the therapist used lots of present moment focus but no explicit exercises, so they were unsure how to score the item.

Four participants indicated that item 15 was difficult to understand. Three commented that the phrase ‘contain their psychological experiences’ could be misinterpreted as managing emotions. It was suggested to change it to “bigger than and/or separate from their psychological experiences”.

One participant commented on item 19, stating that it was difficult to score as the therapist had talked about workable and unworkable responses but not explicitly in the context of values. The participant suggested taking out the part about values.

Research team’s discussion and decisions. Item 1 was discussed at length by the research team. Participants did not comment on the therapist’s use of methods that were sensitive to the situation, they focused on whether he used experiential exercises and what these were defined as. This led the research team to realise that the wording could be interpreted in two different ways. The emphasis of the item could be on using techniques that are sensitive to the situation (in contrast to manualized or ‘one size fits all’ interventions), or it could be on the therapist using experiential techniques (in contrast to didactic methods). The research team discussed how both of these interpretations would be ACT consistent. We decided that the item needed to be made unambiguous and therefore focus on one of the interpretations.

We debated this issue at length and ultimately felt that both interpretations needed to be represented because they both were essential for an ACT fidelity measure. We did not think one interpretation could be deleted at this stage as it would feel like a fundamental aspect of the ACT approach would not be represented. Without an item on using experiential methods, the measure would not allow the rater to capture whether the therapist used experiential or didactic methods. Without an item on choosing methods sensitively, the measure would not allow the rater to distinguish between therapists who use a ‘one size fits all’ approach/protocol-based intervention and those who show skills in going with what the client brings/using ACT techniques sensitively and functionally.

The research team therefore decided to capture the two interpretations of the item with the following two new items: 1) Therapist uses experiential methods/questions (i.e. helps the client to notice and use their own experience rather than thoughts about their experience), 2) Therapist chooses methods that are sensitive to the situation and context (i.e. in a flexible and responsive way rather than a 'one size fits all' approach).

Item 4 was updated to reflect the comments, the word 'prolonged' was deleted to ensure the focus is on the language the therapist uses rather than the length of time they talk for. For item 6, the misleading part was deleted, so the item reads "therapist conversations are at an excessively conceptual level..."

For item 9, participants suggested taking out 'in the service of values' as the therapist did encourage the client to "stay with" painful thoughts and feelings, but there was not the contextual information to indicate if this was done in the service of their values. The research team discussed how taking out the part about values would then be taking the therapist behaviour out of context and might lend itself to being scored for 'one size fits all' ACT interventions that are warned against (Strosahl et al., 2004). The part about values was added in response to comments from the Delphi panel about the function of the therapist's behaviour being important. We decided to put the part about values in brackets, so that it is still there, but not absolutely necessary to score on the item. A similar comment and suggestion was made for item 19, the research team discussed how the part in brackets about moving towards or away from values could be changed from an "i.e." to an "e.g." so that it is one example of how the therapist might explore workable and workable responses.

Item 13 was updated to take out the word 'exercises' and replace it with 'methods' so that it does not only apply to explicit exercises. The examples in brackets were updated to be more inclusive of possible therapist behaviours demonstrating this so they include "mindfulness tasks, tracking, noticing, etc". Finally, item 15 was updated to reflect the comments about the word 'containing' being ambiguous as it can also mean managing emotions. This word was taken out and 'separate from' was added as suggested by participants.

Final check

While the research team were discussing the comments and amending the ACT-FM we performed a final check of the measure and noticed a few minor faults which we edited. We made typographical corrections, for example we noticed a long sentence in the description of Engaged response style in the manual, so we divided it into two. Inspired by participants comments on the use of the word 'exercises' being excluding as it implies that an explicit exercise is required, we changed this word in items 20 and 21 to 'methods'. Additionally items 8 and 21 were updated to 'and/or' to be more inclusive than their former wording of 'or' and we added 'etc' into the brackets for item 14 to again be more inclusive of possible therapist behaviours. Finally, for item 8 ("Therapist gives the client opportunities to notice how they

interact with the content of their thoughts or feelings e.g. whether avoidant or open”), ‘the content’ was deleted as the research team discussed how this part of the item was redundant and emotions may not have a ‘content’.

Field test discussion

Summary of findings

The aim of the second part of this thesis was “To pilot the developed measure with ACT clinicians, assessing its inter-rater reliability and attaining feedback on its usability.” Nine clinicians were recruited to rate a 20 minute therapy video and provide feedback on its usability with suggestions to improve it.

Inter-rater reliability

The inter-rater reliability was found to be moderate to excellent at the 95% confidence interval. This implies that the clinicians independently gave the therapist’s behaviours similar scores on the items on the ACT-FM. While this is a good result, we would hope this would improve further if repeated again with a different group as the items with large discrepancies have been discussed and have been altered to be less ambiguous.

Usability feedback

The measure. Generally, the participants scored the ACT-FM as fairly easy to understand and use. They made suggestions to improve the parts that were difficult (e.g. making it clearer to make notes throughout and score at the end) so we would anticipate that with these changes, the ACT-FM is now easier to use. None of the participants made comments about the scoring system being difficult or suggestions to improve it. This coupled with the moderate to excellent inter-rater reliability finding suggests that the scoring system developed by the research team in response to the Delphi comments was easy to use and reliable.

The items. The participants identified seven items as difficult to understand or rate. They made suggestions to improve them and reduce the ambiguity. One of these items was described as difficult to understand due to the clinicians not understanding it (item 15), due to confusion with the word “contain” having different meanings in ACT and in therapy in general, i.e. containing emotions might be interpreted as managing them rather than in the self-as-context meaning of being *bigger than* them. The other items were identified due to ambiguities in the wording rather than the clinicians not understanding their meaning. This implies that overall the items within the measure were pitched at the level we had aimed for. We intended for the measure to be understood and used by reasonably experienced ACT clinicians, rather than necessarily being used by novice ACT clinicians or only accessible to experts. This was so that the level of complexity and technical terms was at a high enough standard and specific enough to be used in RCTs.

In response to the field study, both interpretations of item 1 were captured by splitting it into two items on using experiential methods and using methods sensitive to the situation. It could be argued that introducing two new items at this stage invalidates the initial test of the measure's inter-rater reliability. However, we felt that removing part of the item to make it unambiguous would lose a fundamental part of the ACT stance. We noted how the aim of the field study was also to gain feedback on the measure's usability, and so developing an item that was identified by eight of the nine participants as difficult to understand or rate was consistent with this aim.

This also means that the therapist stance ACT consistent section has four items, whereas the other sections only have three. We discussed this imbalance and noted that the priority was to develop a useful ACT fidelity measure, rather than rigidly sticking to the template that we had envisioned. We discussed whether we should add an item into the therapist stance inconsistent section to make the sections even. However, we decided that making the sections even was not enough of a rationale to introduce a new item at this stage. While this does mean that the consistent section has one more item than the inconsistent section, the two scores are not compared to each other and so it does not make a difference if they have different totals. We decided to convert the total score from 12 to 9 to maintain consistency with the other sections, and added to the ACT-FM that the 4 items should be added, divided by 4 and multiplied by 3. Ultimately, we chose practicality and usefulness of the measure over vanity. We discussed how over time the ACT-FM would likely be developed further and the items may be refined and made even at a later stage.

Evaluation of the method

Diversity of the sample

The recruited clinicians worked across a broad range of client groups covering the life span and breadth of physical and mental health (adult physical health, neurological conditions, adult mental health, paediatrics, adult pain, older adults). All participants were currently working clinically and ranged from 3 to 10 years' experience with ACT (mean= 4.7). The majority had a mainly clinical background and were female, although one participant had a mainly research background and two participants were male.

The demographics illustrate how diverse the sample was in terms of client groups and length of experience using ACT. The participants were therefore in a good position to evaluate the ACT-FM from a variety of perspectives.

Chosen methodology

When providing feedback and suggestions to improve the ACT-FM and difficult items, the participants were given free text space in the feedback questionnaire. They filled this in following a discussion as a group where each item was considered and participants compared

scores to identify items that could be interpreted ambiguously or were difficult to understand. In hindsight, richer data may have been generated if we had gained ethical approval and consent to record the verbal discussion. This would have allowed a qualitative analysis of the key points. The chosen methodology relied on participants writing a thorough summary of their suggestions. However, the chosen methodology resulted in concise comments being made, which were quicker to analyse than conducting a qualitative analysis of a focus group. Additionally, some participants made suggestions that were not discussed in the group. It may be that they felt more comfortable giving some feedback anonymously and that analyzing the discussion as a focus group may have missed out on some feedback.

Limitations

The field study was conducted using a therapy video. Although the measure is designed to be used for both audio and video recordings, it has not yet been tested for its usability with audio only. When rating a video session, the participants may gain additional information from non-verbal information such as body posture. It is unknown how much the participants took these factors into account when rating and it is unknown if they would have given different ratings if the recording was audio only. This has implications for the inter-rater reliability also. While it was found to be moderate to excellent, it is unknown if this same result would have been achieved if the participants rated an audio clip. The ACT-FM would benefit from further research testing its inter-rater reliability and other psychometric properties with both audio and video recordings. This would allow us to determine if the ratings are comparable or if allowances need to be made when scoring.

Another limitation is possible bias in the ratings. Although the clinicians were not told they would be rating an ACT therapy video specifically, the psychologist in the video is a well-known ACT trainer so he may have been recognised by the participants. This may have influenced their ratings to have been biased towards rating the items as more ACT consistent.

The same researcher who co-developed the ACT-FM led the field test. This may have led to an unconscious bias to want to portray it favourably. However, the researcher held this in mind and did not view the field study as a test of whether the ACT-FM is good or not, but as an opportunity to gain honest feedback to improve it further. A minimal explanation was given to participants in the field study, with little other than what was documented in the participant information sheet. They were asked to rate the therapy video based on their knowledge from reading the ACT-FM manual. This was so that any ambiguities in the measure that clinicians would face in the real world when trying to use the measure would be noticed and could be corrected.

Finally, the usability measure was designed for this study and consisted of items generated by the research team. It was therefore not validated, however it was succinct and served the purpose of structuring the more useful and important qualitative feedback.

CHAPTER FIVE: GENERAL DISCUSSION

Review of background and aims

This thesis aimed to develop a measure of therapist fidelity to ACT, including a manual, scoring guide and items covering a breadth of ACT processes developed through expert consultation. The second aim was to conduct a small field study to test the usability of the measure and to assess its inter-rater reliability.

This study was necessary because a practical, contemporary, validated, trans-diagnostic and non-study specific measure of ACT therapist fidelity did not exist previously. ACT RCTs have been criticized for not having good enough methodology to be considered as a ‘well-established’ treatment for any disorder (Öst, 2014). It has been recommended that the methodological quality of studies needs to be improved, specifically checking the adherence and competence of therapists (Öst, 2014; A-Tjak et al., 2015). The development of the ACT-FM will make this more convenient for future RCTs and may benefit further research and clinical work, such as allowing research on active components of therapy and providing a structure to develop ACT skills clinically.

Summary of findings and contributions

Using Delphi methodology, the ACT-FM has been developed. 83% of the final items met the consensus criteria and items covered a breadth of ACT processes. ACT experts participated in three iterative rounds of Delphi questionnaires to develop and revise the manual and items. The ACT-FM was then tested by clinicians to check its practical usability and initial inter-rater reliability.

The ACT-FM is the first ACT fidelity measure to be developed through Delphi methodology, integrating the opinions of ACT experts. The measure has been developed following Roth and Fonagy’s (2006) recommendation that formal rating scales should be developed by deriving therapeutic skills and tasks from professional consensus and specifying them with precision and clarity in a way that they can be rated reliably. Additionally, the methodology fits with Plumb and Vilaradaga’s (2010) recommendation for developing ACT fidelity measures that a team of individuals with relevant experience should be consulted to create the manual and measure.

This suggests that it may plausibly have higher content validity than existing ACT fidelity measures which have been developed by a single clinician or small group without formal consensus methodologies. As recommended by Plumb and Vilaradaga (2010), the items are clear observable therapist behaviours; they are scored for extensiveness rather than just a presence or absence, and there are ACT consistent and ACT inconsistent items.

Evaluation of the methods

The Delphi method and field study complimented each other as methodologies to create the ACT-FM. Using the two studies allowed us to meet the aims of creating a valid, practically useful and reliable measure. While developing the items through expert consensus increased the likelihood of the items having high content validity, this methodology alone would not have ensured the measure was practically useful or reliable.

There are several ways in which the field study highlighted ambiguity in the measure which had gone unnoticed by the research team and the Delphi panellists. For example, they pointed out that the phrase ‘contain their psychological experiences’ for item 15 may be misinterpreted. There were some ambiguities that they did not point out but that were picked up by comparing their scores which allowed a discussion of how some items had been interpreted differently by different participants. These were often subtle wording ambiguities such as the word ‘prolonged’ for item 4 and ‘exercises’ for item 13.

These subtleties may not have been noticed by the Delphi participants because they were reviewing each item in terms of how much they thought it should be included, which could have been done with a fairly quick evaluation of how ACT consistent or inconsistent the item was. The panel may not have been considering issues such as how specific or unambiguous the item was. The participants in the field study may have engaged with the items differently and developed a deeper understanding of what each item was capturing because they were required to apply the items to a therapy session. Additionally, the experts on the Delphi panel may not have noticed the issue with using the word ‘contain’ because they view it in terms of the ‘self-as-context’ meaning. However, the clinicians who were less specialist in ACT may have been more aware of its meaning in other therapies when referring to managing emotions.

The adaptations made to the measure in response to the field study highlight how important it was to test out its usability before publishing for the ACT community to use. If the ambiguous and difficult items had not been identified and amended then there would have been issues with the measure when in public use.

Findings in the context of the wider literature

ACT-FM in the context of functional contextualism

ACT is rooted in the functional contextualism philosophy of science (Hayes et al., 1993). With this line of thinking, behaviours should be considered within the context in which they occur and the purpose of the behaviour is important. This has implications for a therapist fidelity measure.

Different behaviours can have the same *function* but vary in *form*. For example, to achieve the function of helping a client defuse from an unhelpful thought, the therapist might use an experiential exercise with the client such as ‘leaves on a stream’, the ‘milk, milk, milk’

exercise (Hayes, Strosahl & Wilson, 1999, p.154) or use a metaphor such as ‘thoughts are like clouds in the sky’, etc. Conversely, different therapist behaviours can take the same *form* but vary in *function*. For example, the therapist might introduce a mindfulness body scan to achieve the following functions: to help the client notice present bodily sensations, to open up to an uncomfortable feeling in their stomach or to distract them from a painful thought or memory, etc. Some of these functions are ACT consistent and some are ACT inconsistent. Strosahl et al. (2004, p. 54) emphasise how “simply applying these techniques in a vacuum is not consistent with good ACT practice. The techniques must ‘fit’ with the contextual properties of the therapeutic interaction”.

This is important, because when rating how ACT consistent a therapist is, we are interested in the *function* of their behaviour, rather than necessarily the *form* it takes. This is harder to rate because the person scoring needs to know the *context* in which the behaviours are taking place and what the purpose is, which they might not know if it is a clip of a single therapy session or a session from mid-therapy. The same therapist behaviours observed by the rater could be ACT consistent or inconsistent depending on their function.

It may be possible to rate the function of a therapist behaviour if the information required is in the immediate context, but sometimes the required information will not have been observed by the rater. Take the following example, a therapist and client had previously had a discussion about values and the client had identified that they value independence. They made a values-based action plan of going to the local shop each day to pick up any items that the client needs. If the therapist asks the client in the section of therapy that is being rated ‘have you been to the shop this week?’ the observer would not know the whole context of values behind the question. Therefore, they might not be able to score this as an ACT consistent therapist behaviour, as taken in isolation it could also be perceived as a generic conversation question.

Equally, a rater might observe a behaviour that they assume is in the context of values and rate it as ACT consistent, when it might not be. This complication occurred in the field study when the rater’s were unsure how to score item 9: “Therapist encourages the client to “stay with” painful thoughts and feelings in the service of their values”. They noted that the therapist did encourage the client to “stay with” their feelings but it was unknown if it was in the service of their values. The function or purpose of a behaviour is often unobservable because we cannot know what the therapist is thinking.

Delphi comments relating to functional contextualism

Throughout the Delphi, panelists made comments about the function of the therapist’s behaviour being important. Item 1 was the main item tapping into the therapist using ACT in a way that is sensitive to the situation and what the client brings, as opposed to a "canned" ACT intervention or protocol: “Therapist uses experiential methods (e.g. exercises, metaphors, etc) that are sensitive to the situation.” It became clear in the field study that this item was

ambiguous and could also be interpreted with the emphasis on the therapist using experiential methods rather than didactic methods. It was therefore made clearer and re-written as “Therapist chooses methods that are sensitive to the situation and context (i.e. in a flexible and responsive way rather than a 'one size fits all' approach)”.

In addition to including a specific item tapping into function, the manual was updated to contain guidance for rating. In response to Delphi comments in the first round, the manual was updated to state that the rater will need to use their clinical judgment when scoring, bearing in mind the context of the therapy session and considering the function of the therapist behaviour.

Field study comments relating to functional contextualism

In the field study, participants suggested editing two items which were presented in the context of values: ‘Therapist encourages the client to “stay with” painful thoughts, feelings and emotions, in the service of their values’ and ‘Therapist gives the client opportunities to notice workable and unworkable responses (i.e. whether their actions move them towards or away from their values).’ Participants commented that it is not always known to the rater what the client’s values are and so this part of the items should be deleted.

However, the counter argument (which was emphasized in the Delphi panel’s comments about the measure needing to point at function rather than form) is that the therapist’s behaviour may only be ACT consistent if it is helping the client move towards valued living. The research team discussed how these are two opposing views and either extreme may be problematic for the measure. We settled upon a stance in the middle and kept the parts about values for these two items but softened them by putting them in brackets or as an “e.g”.

In the context of using the measure to rate a clinician’s own session or a supervisee’s session then the values of the client would be known to the rater. However, in a RCT if the tapes are randomly selected the rater might not know what had been discussed in previous sessions.

Conclusions on the functional contextualism debate

In summary, the rater may not always know enough about the context of a therapist’s behaviour to be able to confidently know its function and therefore rate it as ACT consistent or inconsistent. This is an issue with fidelity measures in general where items are trying to get at observable therapist behaviours, but it is particularly important for ACT as its very foundations are in functional contextualism (Hayes et al., 1993).

Throughout the development of the ACT-FM, we attempted to ensure that it is rooted in functional contextualism as best we could. This has been done in three ways, 1) the rater is required to consider the function of the therapist behaviour when scoring: "You will need to use your clinical judgment when scoring, bearing in mind the context of the therapy session and considering the function of the therapist behaviour." 2) There is an item mapping on to the

therapist helping the client to notice the function of their behaviours: "Therapist gives the client opportunities to notice workable and unworkable responses (e.g. whether their actions move them towards or away from their values." 3) There is an item mapping on to the therapist using ACT consistent techniques in a functional way rather than just in form: "Therapist chooses methods that are sensitive to the situation and context (i.e. in a flexible and responsive way rather than a 'one size fits all' approach)".

Strosahl, Hayes, Wilson and Gifford (2004) describe how describing ACT as a fixed set of exercises, tasks, metaphors and homework assignments does not do it service. However, they also describe how "with such a rich set of treatment strategies to draw from, it is silly to insist that techniques are unimportant in producing good results" (p.51). This is the rationale that they give before outlining the competencies they describe that make up the 'ACT Core Competency Self-Rating Form' published on the ACBS website and in Learning ACT (Luoma, Hayes & Walser, 2007, 2017). This implies that there are specific techniques that a therapist can use with the aim of increasing psychological flexibility.

The research team discussed the difficulty in balancing observable therapist behaviours with understanding the function of the behaviours at length throughout the research process. Ultimately, we felt that it would always be an issue when developing a fidelity measure for ACT. However, we did not feel it was such a crucial obstacle that would undermine any attempt at creating a fidelity measure and we have done the best we can with the suggestions received by the panel. It may be that researchers and clinicians generate ideas of how to improve the measure through using it, and it may be developed further in the future. Additionally, if raters felt that the ACT-FM gave too much credence to specific therapist behaviours out of the context of function for their purposes, they could use the Therapist Stance section alone.

Implications of findings and recommendations for further research

Testing the psychometric properties of the ACT-FM

This thesis has focused on constructing the ACT-FM through Delphi methodology and beginning to test its psychometric properties in the form of inter-rater reliability. This was found to be moderate to excellent and we would expect this to improve further following the adaptations made to ambiguous items identified in the field study. Further exploration of the ACT-FM's psychometric properties was not attempted due to the limits of the scope of this thesis and due to the likelihood of the measure being developed further in response to the usability feedback. It therefore would not have been useful to have data on its psychometric properties in a past form.

Now that the ACT-FM is in its final publishable form, a study investigating the psychometric properties would be beneficial. It would be useful to repeat inter-rater reliability investigations with a larger set of data with more variance, i.e. multiple therapy sessions, therapy contexts, therapists and clients. As we only used a 20 minute video of a therapy session,

not all Tri-flex processes were covered. It would be useful to use a variety of therapy videos with emphasis on different areas of the Tri-flex.

Rating a wider variety of therapy sessions would also allow for tests of restricted range to take place. It would be useful to investigate any floor and ceiling effects when looking at the total and item scores. This has not been possible in the current study as any observed floor and ceiling effects may be reflective of the one therapy session that has been rated, rather than the measure.

It would be beneficial to explore convergent, divergent and discriminant validity with data from multiple therapy sessions. This could be explored by rating ACT and CBT sessions using the ACT-FM, Plumb and Vilardaga's (2010) measure and the CTS-R. Convergent validity would be demonstrated by a correlation between the ACT-FM and Plumb and Vilardaga's (2010) measure for ACT therapy tapes. Divergent validity would be demonstrated by the ACT-FM scoring higher than the CTS-R for ACT tapes and scoring lower than the CTS-R for CBT tapes. Discriminant validity would be demonstrated by ACT tapes scoring higher on the ACT-FM than on the CTS-R.

For an RCT it is necessary to know what classes as high fidelity in order to be able to state that the therapy being used in the trial met this condition. Currently it is unknown what score would indicate high or low therapist fidelity to ACT. Further research could focus on gaining normative data from a large pool of therapists, raters and settings to begin to classify high or low adherence using the ACT-FM.

Use in RCTs

Öst (2008, 2014) noted that a significant portion of ACT studies in his meta-analyses neglected to include treatment fidelity checks. This may be due to a lack of an appropriate transdiagnostic measure for ACT, meaning researchers need to create their own or adapt an existing one.

The ACT measure commonly used in RCTs currently is the one published by Plumb and Vilardaga (2010). However, this measure was developed for a trial for OCD and therefore some of the items are not generalizable to be used with other ACT interventions for other clinical populations. Plumb and Vilardaga (2010) recommend that researchers use their measure as a starting point and then adapt it to suit the needs of their study. However, this is not always done (e.g. Wicksell et al., 2013). It may be that the time and costs associated with adapting the measure are off-putting. Indeed, Perepletchikova et al. (2009) found that psychotherapy researchers reported time, cost, labour constraints and lack of guidelines were the biggest barriers to implementing treatment fidelity procedures.

As ACT is a transdiagnostic approach (Hayes & Hofmann, 2017; Hayes, Levin, Plumb-Vilardaga, Villatte & Pistorello, 2013) it follows that a fidelity measure should be transdiagnostic also. The ACT-FM is transdiagnostic and therefore can be used with any client

group in an RCT without the need for adapting it. Perepletchikova (2011) suggests that general and pre-validated measures of fidelity should be created which can be adapted within limits to fit different specifications in order to address issues of cost and lack of validity involved with developing new measures.

Additionally, ACT theory has evolved since the creation of Plumb and Vilardaga's (2010) measure. The six processes of psychological flexibility are more commonly coupled together to create three process (Luoma, Hayes & Walser, 2017; Hayes, Strosahl & Wilson, 2012), termed the "Tri-flex" (Harris, 2009). The ACT-FM is structured around the Tri-flex, making it more contemporary than Plumb and Vilardaga's (2010) measure.

Use in process research

While lab based research (e.g. Levin, Hildebrandt, Lillis & Hayes, 2012) and mediational research (e.g. Ciarrochi, Bilich & Godsell, 2010) provide evidence that ACT appears to work through the proposed mechanisms, further research on therapist behaviours would help to understand this further. Hayes et al. (2006) have suggested that using behavioural and observer measures would increase the strength of claim of the mediational effect of hypothesised processes. The ACT-FM would allow measurement of which aspects of psychological flexibility the therapist is working on in the session and how this relates to client psychological flexibility and outcomes. Combining research on therapist behaviours and on mediating variables as reported by client (e.g. using the AAQ-II; Bond et al., 2011) would help us to conduct research on the procedures intended to bring about change, and the change itself.

Investigations into the specific active components allow us to improve clinical interventions by refining them and understanding what works for whom (Roth and Fonagy, 2006). This could be explored as total therapist adherence to ACT, or separated Tri-flex subscales to explore the impact of different therapist behaviours on client psychological flexibility. This could be for single sessions or for tracking change throughout therapy. Research could be conducted to explore whether some parts of the Tri-flex have a bigger impact on client psychological flexibility or whether some specific therapist behaviours have a bigger impact than others.

The AAQ-II gives a total score for psychological flexibility, but does not have scope to separately analyse the three main processes within it, or indeed the six further defined processes in the Hexaflex. Francis, Dawson and Golijani-Moghaddam (2016) have developed a 23-item measure of ACT processes named the Comprehensive assessment of ACT processes (CompACT). In addition to a total score indicating psychological flexibility, the CompACT allows a subscale score to be obtained for each of the three main processes which they term 'Openness to Experience', 'Behavioural Awareness' and 'Valued Action'. Using this measure alongside the ACT-FM would allow interesting research into how the therapist's behaviours and client's processes of psychological flexibility interact with each other. We might predict that the

corresponding subscales would correlate. For example, if in a session the therapist scores highly on the Aware response style subscale, it would be interesting to see if this is characterised by a change in clients scores before and after the session on the Behavioural Awareness subscale of the CompACT.

Use for therapist development and training

The ACT-FM may be useful for clinicians to evaluate and improve their skills in ACT. Although a measure exists for this currently, The ACT Core Competency Self-Rating form (Luoma, Hayes & Walser, 2017), it is a longer measure with 50 items. If only using the ACT consistent part of the ACT-FM there are only 13 items to consider. The ACT Core Competency Self-Rating form may be practical for therapists to reflect on their practice in general when willing to spend time on the exercise, but the ACT-FM may be a much quicker and practically useful measure to meet the needs of busy therapists. It could be used for self-rating or for a supervisor to give feedback to a supervisee when there is limited time. Additionally, the ACT-FM may be more valid and reliable than the ACT Core Competency Self-Rating form. It is unclear how the items were initially developed as they are presented without a description of their development (Strosahl, Hayes, Wilson & Gifford, 2004). It is also unclear if different rater's scores would vary significantly as the inter-rater reliability has not been assessed.

As McHugh and Barlow (2010) have highlighted, little is known about the effectiveness of different training approaches when learning a therapeutic approach and how competence following training is maintained over time. Clinicians learn a therapy in a number of different ways, such as listening to a trainer, experiential exercises, role plays, using the techniques for themselves, etc. The ACT-FM could have a use in assessing therapist skills in ACT before and after training and at follow up. This would help us to understand more about which training procedures and strategies are the most effective.

Other implications and further research

It would be interesting to research the relationship between therapist's self-reported ACT adherence and ACT adherence measured by a rater watching/listening to the same session. This could be achieved by both rating with the ACT-FM and exploring if the scores are similar. Research like this would give us data on accuracy of therapist's self-reported adherence, which would be useful considering some trials use this as a measure of fidelity. It is also interesting from the point of view of research on self-assessment bias. Previous research has found that clinicians tend to overestimate their abilities (Walfish, McAlister, O'Donnell & Lambert, 2012).

Further research could examine the relationship between treatment fidelity and outcomes. The ACT-FM would allow us to ask questions about whether therapists who score highly on fidelity also get better therapy outcomes. If this is found to correlate significantly then

the ACT-FM could have another use as a measure of service quality with recommendations for improvement (Bond, Becker & Drake, 2011).

It would also be interesting to research the concept of therapist drift, i.e. therapists becoming less adherent to therapy models over time. This has mostly been researched in CBT (e.g. Waller & Turner, 2016) and it would be interesting to research this in ACT.

Limitations

The methodology specific limitations for the Delphi and field study have been considered in Chapters Three and Four. Here, limitations of the thesis as a whole are discussed.

Usefulness of RCTs and EST lists

One of the main arguments for a need for a trans-diagnostic fidelity measure for ACT was so it could be applied to improve the methodological quality of RCTs as recommended by Öst (2014). The development of lists of ESTs has advantages in that it allows treatment-seeking individuals to learn about and seek information regarding well-validated treatments and it encourages clinicians to practice scientifically based treatments (Tolin, McKay, Forman, Klonsky & Thombs, 2015). However, these lists are not exhaustive and have been critiqued. Tolin et al. (2015) outline how there are issues with how the research evidence is synthesised and evaluated. For example, the criteria to be a “well-established” treatment requires two well designed studies showing efficacy; an approach could meet this criteria while also being found to have no effect or even a negative effect in other studies.

Tolin et al. (2015) critique the overemphasis on symptoms reduction as outcomes and suggest that an emphasis on functional improvement would be more relevant, such as wellness, quality of life and wellbeing. This could be considered particularly important for ACT, as ACT does not aim to reduce symptoms directly. Tolin et al. (2015) also raises concerns about the generalisability of RCT findings to routine clinical practice and they suggest that effectiveness research in non-research settings may be more representative. They suggest that research should move on from exploring which treatment protocols work, to which are the active and/or inert components of a treatment. As Atkins et al. (2017) point out “The era of meta-analyses focused on an overall “horse race” question such as “is ACT better than CBT?” is over” (p.268). Once a treatment is reasonably well established there is less need scientifically to ask questions about outcomes. It is more interesting clinically and scientifically to conduct research into evidence-based components and evidence-based processes. Rosen and Davison (2003) call for research to be conducted on Empirically Supported Principles of change (ESPs) rather than ESTs.

This may be particularly important for ACT and other third wave behavioural therapies because they are more focused on trans-diagnostic processes of change and evidence-based procedures that cut across diagnostic categories, than protocols for different diagnoses (Hayes & Hofmann, 2017). As ACT can be applied regardless of any diagnosis and trans-diagnostically

(Hayes, Levin, Plumb-Villardaga, Villatte & Pistorello, 2013), it does not follow that research should focus on conducting RCTs on specific client groups.

Having said that, the other main argument for developing a trans-diagnostic fidelity measure for ACT was to allow research on processes of change in the form of therapist behaviours to be conducted. The ACT-FM may be a useful tool whether being used to check treatment fidelity in an RCT or if it is used to isolate therapeutic techniques to investigate ESPs.

Fidelity measures

Fidelity measures can include both the therapist's adherence to the model and the therapist's competence (Nezu & Nezu, 2008). Adherence is the extent to which the therapist uses interventions and approaches that are prescribed by the manual and avoids intervention procedures that are proscribed by the manual, and competence is the level of skill shown by the therapist delivering the treatment, i.e. the extent to which the therapist considers and responds to the relevant aspects of the context (Waltz et al., 1993). In other words, competency is how well the prescribed behaviours are implemented (Perepletchikova, Treat & Kazdin, 2007).

Plumb and Villardaga (2010) recommended that treatment fidelity manuals should include at least one item of therapist competence and both adherence and competence are important for evaluating therapy (Öst, 2014). However, we only set out to develop items for adherence because Waltz et al. (1993) describe how competence measures need to be context specific and defined relative to the specific treatment being used. We decided that it would be impractical to attempt to create a universal and trans-diagnostic measure of therapist competence to ACT as the items that would be included are dependent on the study that is being evaluated.

Despite this, when reflecting on the final measure, the items do appear to cover competence as well because as previously discussed it is not possible to take ACT techniques out of context (Strosahl et al., 2004). The comments received from the Delphi participants, and holding in mind ACT literature about avoiding 'one size fits all' interventions (Strosahl et al., 2004) caused the items to evolve in a way that may have captured competence in addition to adherence. Therefore, the final items in the measure do not only record if the behaviour occurred or not, but some items tap into how well it was done, for example item 1. The ACT-FM may capture competence in a way that is integrated throughout the measure, rather than a separate competence section or scale.

While a strength of the ACT-FM is that it can be used trans-diagnostically, it is possible that researchers and clinicians may still need to supplement items to fully capture intervention specific features. For example, if using the ACT-FM to evaluate therapist fidelity in a trial with individuals with acquired brain injuries, the researchers may want to rate adherence to unique aspects such as a recap of the previous session at the start, patients being given written materials to aide memory, etc.

Conclusions

This thesis aimed to create a valid, reliable and practically useful ACT fidelity measure (the ACT-FM). ACT is a fairly young third wave behavioural therapy with a developing evidence base. Research into the effectiveness of ACT has been critiqued for lacking methodological quality (Öst, 2014), in particular there is a lack of therapist adherence and competence checks. Existing ACT fidelity measures have limitations for this use and the current study aimed to overcome them by developing a trans-diagnostic measure that is coherent with contemporary ACT theory and can be used when ACT is being compared to a therapy other than CBT. Additionally, the measure aimed to be practically useful with a concise manual and specific observable therapist behaviours.

The aims were achieved by completing two studies. A Delphi method was used to develop a measure with high content validity through expert consensus, and a field study was used to test the measure's practical usability and inter-rater reliability with clinicians.

ACT experts were consulted through three iterative rounds of questionnaires in a Delphi study to develop the manual and items. Items were structured around therapist stance and the Tri-flex, covering a breadth of Hexaflex processes. The selection of highly experienced experts helped to ensure validity of the developed measure. The research team was required to consider the panel's comments and suggestions in the context of ACT literature and fidelity measure literature to ensure that the ACT-FM remained theoretically coherent and in line with recommendations.

Piloting the ACT-FM in a field study with ACT clinicians evidenced that it had moderate to excellent inter-rater reliability and ensured it was practically useful. Any aspects that were identified as difficult to understand to rate were altered in response to the participant's comments.

While we aimed to develop a contemporary measure, we also attempted to ensure it was congruent with the philosophical foundations of ACT, i.e. functional contextualism. This was achieved in three ways; 1) by including in the manual that the rater is required to consider the context of the therapy session and the function of the therapist behaviour when scoring, 2) by including an item capturing whether the therapist uses ACT techniques in a way that is sensitive to the situation and context rather than a 'one size fits all' approach and 3) by including an item capturing whether the therapist gives the client opportunities to notice the function of their own behaviours.

The development of this measure has implications for research and clinical practice. It can be used to assess therapist fidelity in RCTs, to research therapist behaviours as active components in therapy and to research the relationship between treatment fidelity and outcomes. It can be used as a supervision tool to feedback supervisee's strengths and areas for development, as a self-rated tool to reflect on ACT skills and also as a tool for evaluating training effectiveness.

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APPENDICES

Appendix A. Ethical approval

A.1 Delphi study ethics approval letter



UNIVERSITY OF LEEDS

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22 May 2017

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Dear Lucy

Ref no: **MREC16-120**

Title: **Developing a fidelity measure for Acceptance and Commitment Therapy**

Your research application has been reviewed by the School of Medicine Ethics Committee (SoMREC) DClin Psych SEP Sub-REC and we can confirm that ethics approval is granted based on the following documentation received from you and subject to the following conditions, which must be confirmed as being fulfilled prior to the study commencing:

- Evidence of permission from the gatekeeper for the Association for Contextual Behavioural Science (ACBS)
- Evidence of permission from the gatekeeper for ACT Special Interest Group (SIG)

Document	Version	Date Submitted
MREC16-120 application version 2	2.0	21/04/2017
MREC16-120 BOS v2	2.0	21/04/2017

Please notify the committee if you intend to make any amendments to the original research ethics application or documentation. All changes must receive ethics approval prior to implementation. Please contact the Faculty Research Ethics Administrator for further information (fmhuniethics@leeds.ac.uk)

Ethics approval does not infer you have the right of access to any member of staff or student or documents and the premises of the University of Leeds. Nor does it imply any right of access to the premises of any other organisation, including clinical areas. The committee takes no responsibility for you gaining access to staff, students and/or premises prior to, during or following your research activities.

Please note: You are expected to keep a record of all your approved documentation, as well as documents such as sample consent forms, and other documents relating to the study. This should be kept in your study file, which should be readily available for audit purposes. You will be given a two week notice period if your project is to be audited.

It is our policy to remind everyone that it is your responsibility to comply with Health and Safety, Data Protection and any other legal and/or professional guidelines there may be.

We wish you every success with the project.

Yours sincerely

Dr Roger Parslow
Co-Chair, SoMREC, University of Leeds

A.2 Field study ethics approval letter



Faculty of Medicine and Health Research Office
School of Medicine Research Ethics Committee (SoMREC)

Room 9.29, level 9
Worsley Building
Clarendon Way
Leeds, LS2 9NL
United Kingdom

+44 (0) 113 343 1642

12 February 2018

Lucy O'Neill
DClin Psych Student
Leeds Institute of Health Sciences
Medicine and Health
Institute of Health Sciences
University of Leeds
School of Medicine
Level 10 Worsley Building
Clarendon Way
LEEDS LS2 9NL

Dear Lucy

Ref no: **MREC17-007**

Title: **Testing a fidelity measure for Acceptance and Commitment Therapy**

Your research application has been reviewed by the School of Medicine Ethics Committee (SoMREC) and we can confirm that ethics approval is granted based on the following documentation received from you:

Document	Version	Date Submitted
MREC17-007 ethics V2	2.0	07/11/2018
Christopher Graham LoA BH	1.0	07/11/2017
LoA Christopher Graham KCL	1.0	07/11/2017
LoA Lucy O'Neill KCL	1.0	07/11/2017
Lucy O'Neill LoA BH	1.0	07/11/2017
MREC17-007 PIS V2	2.0	07/11/2017
MREC17-007Fieldwork_Assessment_Form_V1	1.0	07/11/2017

Please notify the committee if you intend to make any amendments to the original research ethics application or documentation. All changes must receive ethics approval prior to implementation. Please contact the Faculty Research Ethics Administrator for further information (fmhuniethics@leeds.ac.uk)

Ethics approval does not infer you have the right of access to any member of staff or student or documents and the premises of the University of Leeds. Nor does it imply any right of access to the premises of any other organisation, including clinical areas. The committee takes no responsibility for you gaining access to staff, students and/or premises prior to, during or following your research activities.

Please note: You are expected to keep a record of all your approved documentation, and all other documents relating to the study, including any risk assessments. These should be kept in your study file, which should be readily available for audit inspection purposes. You will be given a two week notice period if your project is to be audited.

It is our policy to remind everyone that it is your responsibility to comply with Health and Safety, Data Protection and any other legal and/or professional guidelines there may be.

We wish you every success with the project.

Yours sincerely

Dr Naomi Quinton
Co-Chair, SoMREC, University of Leeds

Appendix B. Delphi round 1 materials

B.1 Recruitment invitation email for first round

Dear...,

I am a Psychologist in Clinical Training at the University of Leeds. For my thesis, I am developing a fidelity measure for Acceptance and Commitment Therapy (ACT) that can be used across clinical presentations. We are using a Delphi method study to gather the opinions of ACT experts on what the measure should look like and which items should be included. Once finalised, the developed measure will be made freely available for use.

We are looking to recruit professionals who have been working with ACT in a clinical and/or research capacity for five years or more or professionals who are recognised as a peer reviewed ACT trainer by the ACBS.

In collaboration with Dr Lance McCracken, we have developed a provisional measure but would welcome the opinion of ACT experts in order to develop the measure further. If you choose to take part, you will be invited to complete a Bristol Online Survey where you will be asked your opinion on the inclusion and exclusion of items in the measure as well as being asked to comment on the measure in general. The comments will be used to revise the measure and a summary of the anonymised responses will be sent out with a further questionnaire with the items updated accordingly. We anticipate that this should be sufficient to achieve consensus; however, a third questionnaire may also be sent out.

You do not have to take part in this study and you may leave questions blank or discontinue at any time. You are free to withdraw before starting any of the rounds of questionnaires; however, your data cannot be removed once questionnaires have been submitted as it will be merged with other participant's data. All the information that you provide will be anonymised. Individual email addresses will not be visible to other participants and when the results of each round are fed back this will be done in an anonymous way. This research has received ethical approval from the University of Leeds School of Medicine Ethics Committee (approval date: 19/6/2017; approval ref: MREC16-120).

To find out more or if you have any questions, please contact me on ps07lo@leeds.ac.uk

If you would like to take part in this Delphi study, then please follow this link to access the full study information and to complete the first questionnaire:

<https://leeds.onlinesurveys.ac.uk/creating-an-act-fidelity-measure-a-delphi-study-round-1>

Many thanks,
Lucy

Lucy O'Neill
Trainee Clinical Psychologist
Institute of Health Sciences
University of Leeds
Level 10 Worsley Building
Clarendon Way
Leeds
LS2 9NL

Supervised by Dr Christopher Graham: C.D.Graham@leeds.ac.uk and Dr Gary Latchford: G.Latchford@leeds.ac.uk and in collaboration with Dr Lance McCracken.

B.2 First draft of ACT-FM for rating and feedback

The ACT Fidelity Scale (ACT-FS)

This scale is intended to be used by clinicians who are experienced in ACT and understand the principles of the approach. Before scoring the session, familiarize yourself with the scale and the items within it so that you can easily find an item when you see the clinician evidence it during the session.

- As you listen to the session you may find it helpful to make notes in the space next to each item to aide your memory.
- Do not score the items until the end of the session.
- Only score based on behaviours you have observed, not what you think the clinician would have achieved if they had been given longer. This means that it is common to not be able to demonstrate some of the items, especially in a first session.
- Raters should have specific examples in mind when scoring, which are useful to note in the space for comments for each item.
- The clinician's behaviour should be scored irrespective of how the client responded to the clinician's attempt.

The items capture four key areas within ACT: Therapist stance, Open response style, Centred response style and Engaged response style. These are outlined below with definitions. In the scale, there are items to score the therapists behaviours as consistent with these areas, and also inconsistent.

Therapist Stance

An ACT stance is equal, non-coercive, and non-judgemental. The therapist should show interest, empathy and warmth. The therapist does not presume to change the client's mind – rather to direct them to their own experience - to guide noticing. The therapist does not lecture.

Open response style

“Acceptance and defusion are key skills that support one's openness to direct experience” (Hayes, Strosahl & Wilson, 2012, p68). “Acceptance is the willingness to experience undesirable thoughts, feelings, and sensations when doing so serves one's goals. Cognitive defusion involves distancing or separation from the content of one's thoughts, a process that reduces cognitive influence without necessarily changing cognitive content” (Yu and McCracken, 2016, p1).

Centred response style

"It is not possible to be open and engaged in life without also being centred in consciousness and in the social, physical, and psychological present. The centre column of the hexaflex functions like a hinge of conscious and flexible contact with 'the now'" (Hayes, Strosahl & Wilson, 2012, p78). “Being present involves being aware of ongoing events. Self as context entails an experience of taking a perspective, or a stance as observer, with respect to one's psychological experiences without getting attached to them, needing to defend them as a matter of identity or to defend against them as if they present a threat” (Yu and McCracken, 2016, p2).

Engaged response style

The Engaged response style is about making “connections with closely held values through daily life actions.” (Hayes, Strosahl & Wilson, 2012, p92). “Values are ongoing qualities that one defines as important and desired and that guide one's goals and actions. Committed action is the ability to flexibly persist in actions guided by values, to meet difficulty and to persist again.” (Yu and McCracken, 2016, p2).

Scoring of frequency and extensiveness (adapted from Plumb and Vilardaga, 2010).

Give a rating for each of the areas based on the clinician's behaviours you have observed.

Ratings are from 1 to 4 where:

A rating of:	Would indicate:
1 = Not at all	These behaviours never occurred
2 = A little	At least one of these behaviours occurred at least once (and may have occurred a few times) and was not addressed in an in-depth manner.
3 = Somewhat	Some of these behaviours occurred and at least one was addressed in a moderately in-depth manner.
4 = Considerably	Several behaviours occurred; and some were addressed by the therapist in an in-depth manner.
5 = Extensively	Behaviours occurred great frequency and at least several were addressed by the therapist in a very in-depth manner.

The starting point for each area is 1. Only assign a score higher than 1 if the rater hears examples of the behaviour specified in the items. Be careful not to start rating from the midpoint (3) out. Please only give whole point answers, e.g. do not score 2.5.

ACT consistent Stance = score out of 5

ACT consistent Open Response Style = score out of 5

ACT consistent Centred Response Style = score out of 5

ACT consistent Engaged Response Style = score out of 5

ACT consistency = score out of 20

ACT Inconsistent Stance = score out of 5

ACT Inconsistent Open Response Style = score out of 5

ACT Inconsistent Centred Response Style = score out of 5

ACT Inconsistent Engaged Response Style = score out of 5

ACT inconsistency = score out of 20

Therapist stance – ACT consistent

1. Therapist states explicitly that they have confidence in the client's ability to make change.
2. Therapist states or demonstrates a posture of equality i.e. "we both struggle".
3. Therapist states or demonstrates understanding that client's circumstances are experienced as difficult (and of the emotions and thoughts that occur in this context).
4. Therapist demonstrates interest in the client's situation and psychological experiences.
5. Therapist explicitly notices and points out psychologically flexible responses on the part of the client (open/nonavoidant, aware/in contact with present, actively aligned with goals and values).
6. Therapist encourages or shows appreciation for new or developing psychologically flexible behaviour on the part of the client.

Therapist stance – ACT inconsistent

1. Therapist presents a posture of superiority or authority.
2. Therapist lectures the client.
3. Therapist uses coercion or attempts to persuade the client.
4. Therapist over-rides client goals.
5. Therapist rushes to reassure or diminish "unpleasant" or "difficult" thoughts and feelings when these arise.
6. Therapist facilitates sense-making or literal understanding above pragmatic action.

Open response style – ACT consistent

1. Therapist encourages the client to adopt an open and accepting stance to thoughts, feelings and bodily sensations.
2. Therapist facilitates the observing/describing of thoughts and feelings on the part of the client.

3. Therapist models the observing/describing of thoughts and feelings in their own experience.
4. Therapist helps the client to notice that thoughts are separate from the events they describe.
5. Therapist helps the client notice that psychological experiences (thoughts and feelings) are not by themselves causes of actions.

Open response style – ACT inconsistent

1. Therapist encourages the client to enact behaviours as a means to control or diminish distress (or other emotions).
2. Therapist encourages the client to “think positive” or to substitute negative for positive thoughts.
3. Therapist facilitates detailed discussion of whether client’s thoughts are true or accurate.

Centred response style - ACT consistent

1. Therapist directs the client’s attention to the thoughts, feelings and bodily sensations that are present now.
2. Therapist uses present-moment-focus tasks (mindfulness tasks) to increase awareness of the moment including thoughts and feelings.
3. Therapist helps the client to take an observer perspective on thoughts and feelings.
4. Therapist helps the client notice deviations from present moment focus.
5. Therapist helps the client to identify the situation elements (thoughts, feelings, sensations, memories, urges) that can exert influence on behaviour.
6. Therapist helps the client to identify potential behavioural choices and their consequences.
7. Therapist uses distinction (e.g. “I am separate from/bigger than...”) or hierarchical (“I contain/hold...”) framing in relation to self and perspective.
7. Therapist encourages the client to shift to a different perspective (for, example, an older or younger self, another person).
8. Therapist encourages the client to notice labels/evaluations/stories that they attach to themselves (conceptualised self).

Centred response style - ACT inconsistent

1. Therapist introduces or uses mindfulness and/or self-as-context ideas as methods to control, diminish or distract from, unwanted thoughts, emotions and bodily sensations.
2. Therapist uses mindfulness and/or self-as-context exercises used to challenge the accuracy of beliefs or thoughts.

Engaged response style - ACT consistent

1. Therapist clearly emphasises that behaviour change is the primary focus of therapy.
2. Therapist encourages the client to clarify their values (overarching desires and qualities of action).
3. Therapist links behaviour change to client’s personal values (i.e. emphasises that behaviour change serves the purpose of greater contact with values).
4. Therapist encourages the client to clearly state goals/committed actions.
5. Therapist facilitates identification of specific actions in response to predictable barriers.
6. Therapist uses hierarchical or part-whole framing to connect short term patterns of behaviour or small changes to longer term sources of satisfaction.
7. Therapist helps the client discriminate personal values from social pressures and the wishes and desires of others (possibly also including the therapist).

Engaged response style - ACT inconsistent

1. Therapist encourages activity for “activity’s sake” (i.e. emphasis on activity out of the context of values).
2. Therapist uses actions (even when this is in line with values) as a means for changing thoughts or feelings (to reduce or control unwanted thoughts, emotions and sensations).
3. Therapist imposes their own, other’s or society’s values upon the client (i.e. suggests what the client should or should not value).
4. Therapist ignores psychological experiences and coordinates a “just do it” type of responding.

B.3 Screenshots of round 1 BOS

Page 2: PARTICIPANT INFORMATION

An invitation

THE UNIVERSITY OF LEEDS

I am inviting you to take part in a research study, which is being conducted as part of my Doctorate in Clinical Psychology at the University of Leeds. Please read the following information carefully before deciding whether to take part.

Study aims

This study aims to develop a pragmatic, multi-domain treatment fidelity measure for Acceptance and Commitment Therapy (ACT), by drawing a consensus from experts in the field regarding which items should be included.

The Delphi study will be run completely online and we expect there to be two or three rounds of consultation.

The data gathered will be used to develop a therapy fidelity measure (that will be made publicly available for free). It is thought that this could be used to assess treatment fidelity in research evaluating the effectiveness of ACT. It may also be used as a tool for self-evaluation or evaluation of a supervisee's skills in adhering to the ACT model.

What is a Delphi study?

The Delphi method is used to consult experts through a series of questionnaires with the aim of combining opinions and achieving agreement and consensus. The responses from each round of questionnaires are fed back to the experts and an updated questionnaire is presented.

Why am I being approached?

You have been identified as a potential 'expert participant', that is as having expertise in the field of ACT (e.g. how it 'works'). You were identified by one of the supervisors of this thesis (or collaborators at King's College London - Professor Lance McCracken) through their knowledge of the field and/or nominated by another participant as a potential participant.

What will I need to do?

We will ask you to participate in a series of online questionnaires via Bristol Online Surveys. We estimate that there will be two rounds of questionnaires, however if consensus is not achieved within these rounds there may be three. We anticipate that the questionnaires should take around 20 to 40 minutes to complete, but this may vary. If you agree to take part, we would ask you to complete the

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Creating an ACT Fidelity Measure- A Delphi Study (Round 1) v2

Page 1: NAVIGATION

Important information

You can save this survey and complete it at a later time using the 'Finish Later' facility. This allows the bookmarking of an incomplete survey or an email to be sent to you which details how to resume a survey. Any email address provided will only be used at the time the email is sent to you and then it will be discarded i.e. it is not stored by Bristol Online Surveys. It would be your responsibility to make sure you enter a valid and correct email address or accurately record the web address given to you on the 'Finish Later' page, otherwise it is unlikely that you would be re-united with your incomplete survey.

Also, once you have clicked on the **submit and continue** button at the bottom of each page you will be unable to return to previously completed pages (even if you were to use the finish later facility).

Please note that cookies, personal data stored by your Web browser, are not used in this survey.

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questionnaires within two weeks of receiving them, in order to allow sufficient time for analysis of the results and re-development of the measure. With your permission, we will send an email reminder after one week if we have not received your response.

Do I have to take part?

It is up to you whether to take part. If you decide to take part, you will be asked to complete a consent form. You will then be directed to the questionnaire. You may choose not to respond to any of the individual questions asked to you in the questionnaire and you may discontinue at any time. You do not have to give a reason for not responding or for discontinuing the questionnaire. If you do decide to take part, we ask that you complete the questionnaire within two weeks. Once we have received the questionnaire responses, these will be anonymously fed back to the panel of experts and a revised version of the measure will be emailed out via an online questionnaire to repeat the process. It is again up to you whether to take part in the second and potentially third rounds of questionnaires.

Can I withdraw from the study?

You are free to withdraw before starting any of the two or three rounds of the study (i.e. not complete any further rounds). However, we cannot remove your data once questionnaires have been submitted. This is because questionnaires are completed anonymously and so cannot be matched to the sender. Once submitted, your questionnaire data will become merged with that of other participants. Please feel free to contact me using the details below if you have any questions before taking part.

Confidentiality and ethics

This study has been approved by the University of Leeds School of Medicine Research Ethics Committee (Approval date: 19/6/2017, Approval ref: MREC16-120). Questionnaires can be completed anonymously. None of your personal details will be published without your consent. The research supervisory team will have access to the anonymised data to assist with data analysis.

What will happen to my data?

The data gathered will be used to develop a fidelity measure. The results from the study will be written up as part of a thesis and disseminated (e.g. possibly via conferences, poster presentations, and academic papers). The measure will be available for free. Anonymised quotes from the questionnaires may be used in this write up and dissemination.

How will my data be stored?

Questionnaire data will be stored online on BOS. Anonymised data will be extracted from BOS to, for example, SPSS, excel, and/or microsoft word computer programmes for analysis. Extracted data will be stored securely at all times in password protected files on password protected computers. This will only be accessible to members of the research team and a participant number will be assigned

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immediately. Any identifiable information such as your name or contact details will be stored separately to your questionnaire responses. The anonymised data which cannot be linked to you will be securely stored for up to ten years and will then be deleted.

Are there any benefits to taking part?

There is no direct benefit (e.g. monetary payment) for taking part. However, your data will be useful in helping to create a new pragmatic, multi-dimensional fidelity measure for ACT. This will be made freely available to all, and will hopefully give us a new way to assess ACT fidelity across aspects of psychological flexibility. We also hope that you may also find it interesting and useful to have access to other peoples' opinions during the study - to help grow your own ACT proficiency. The measure developed from the study will be made publicly available and the findings from the study will be shared with the ACT community - for example via the ACBS website, ACT/CBS Facebook groups.

Are there any risks involved in taking part?

We do not expect that there will be any obvious risks. Completion of the study will take time (i.e. questionnaires will need to be completed over a number of rounds). Sometimes people find it uncomfortable to share their views with others.

Complaints and concerns

You are welcome to raise any complaints or concerns about this study with me using the contact details below and I will do my best to address them. You can also contact the supervisors of this project using the contact details below if you wish. A formal complaint can be made by contacting:

Claire Skinner (C.E.Skinner@leeds.ac.uk)

Faculty Head of Research Support

Faculty of Medicine and Health Research Office

Room 10.110, Level 10

Worsley Building

University of Leeds

Clarendon Road

Leeds

LS2 9NL

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(Tel: 0113 343 4897)

Thank you for taking the time to read this.

Contact details

Lucy O'Neill (Psychologist in Clinical Training, ps07b@leeds.ac.uk)

The University of Leeds
Leeds Institute of Health Sciences
Doctorate in Clinical Psychology
Level 10

Worsley Building
Clarendon Way
University of Leeds

LS2 9NL

Supervised by Dr Christopher Graham (C.D.Graham@leeds.ac.uk) and Dr Gary Latchford (G.Latchford@leeds.ac.uk); address as above.

In collaboration with Professor Lance McCracken at the Institute of Psychiatry, Psychology and Neuroscience, King's College London.

Page 3: CONSENT FORM

1. If you would like to consent to take part, then please read the statements below and indicate that you agree. Please note that the survey will only let you proceed if you have consented to take part. Please contact the lead researcher (ps07b@leeds.ac.uk) if you have any questions.

I have read and understood the study information.	Agree
I have had the opportunity to ask questions about the study before taking part.	<input type="radio"/>
I give my consent to take part in the study.	<input type="radio"/>
I am aware that I do not have to take part and understand when I can withdraw from the study.	<input type="radio"/>
I give my consent to be sent a reminder email to complete the questionnaire after one week.	<input type="radio"/>
I understand what will happen with my data, how it will be stored, and who will have access to it.	<input type="radio"/>
I agree that anonymised quotes from my completed questionnaires can be used in the write-up and dissemination of findings from the study.	<input type="radio"/>

2. Please provide your email address to act as a signature to consent. This will also be used to send you the link to the second round of the Delphi.

Please enter a valid email address.

If you agree with the information above and want to participate in the study please click on the submit and continue button. Note that this form will act as consent for the whole study i.e. will not be repeated in future questionnaires.

Page 4: DEMOGRAPHICS FORM

Please provide the following details. Your details will be used to describe the overall demographic of the expert panel and will not be linked to your individual answers in the following questionnaire.

3. Gender

4. Age

5. Country of residence

6. Main professional background

Please select exactly 1 answer(s).

- Mainly research work
- Mainly clinical work
- Research and clinical work equally

7. Length of experience with acceptance and commitment therapy (in years)

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Note that experience can mean time spent researching and/or working clinically with acceptance and commitment therapy.

8. Are you recognised by the Association of Contextual Behavioural Science as a Peer Reviewed ACT Trainer?

- Yes
- No

9. Which client group(s) do you work with?

Please select between 1 and 7 answers.

- Chronic pain
- Psychosis
- CAMHS
- Paediatrics
- Physical health
- Adult mental health
- Neuropsychology
- Other

9.a. If you selected Other, please specify:

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Page 5: ROUND 1 QUESTIONNAIRE

The Tri-flex model of psychological flexibility

Psychological flexibility can be defined as "...the capacity to persist or to change behavior in a way that

1) includes conscious and open contact with thoughts and feelings, 2) appreciates what the situation affords, and 3) serves one's goals and values." (McCracken & Morley, 2014, p. 225). These three processes have been termed the 'Tri-flex' model of psychological flexibility (Harris, 2009), where *acceptance* and *cognitive defusion* are referred to as an 'open' response style, *contact with the present moment* and *self-as-context* are referred to as a 'centred' response style, and *values* and *committed action* are referred to as an 'engaged' response style (Hayes, Strosahl & Wilson, 2012).

The ACT Fidelity Scale (ACT-FS)

Christopher Graham and Lance McCracken have drafted an initial version of the ACT fidelity scale as a starting point. There is an instruction manual and four areas in the measure: Firstly, 1. *Therapist stance*, then reflecting the 'tri-flex' model, 2. *Open*, 3. *Centred* and 4. *Engaged*. Each domain has ACT consistent and ACT inconsistent items. Aspects of this initial version are part-informed by early ACT fidelity measures (e.g. Plumb & Viladarga, 2010).

What we are asking of you

We would like you to rate the utility of existing items, help improve their wording, and/or suggest alternative/additional items that you think might perform well in the measure.

When reviewing the manual please consider any feedback in relation to the instructions and scoring procedure.

Based on your expert opinion and knowledge of ACT, please rate each item on the three Likert scales that follow it:

How well does this item capture the ACT concept it is designed to capture?

How observable is this therapist behaviour?

Do you think this item should be included in the final measure?

There will be an option to make suggestions to change the wording of existing items and also to suggest additional items that you think should be added that aren't already covered. Several areas currently have a surplus of items (although some have too few items) that have been generated for you to consider.

What next?

When the Delphi closes in two weeks we will collate the responses and analyse them. We will send all participants an anonymised summary of the results.

The items will be edited according to feedback and a second round of the Delphi will take place. This will follow a similar procedure, with the aim of achieving consensus. A third round may be necessary.

Harris, R. (2009). *ACT Made Simple: An Easy-to-Read Primer on Acceptance and Commitment Therapy*. Oakland: Raincoast Books.

Hayes, S. C., Strosahl, K., & Wilson, K. G. (2012). *Acceptance and Commitment Therapy, Second Edition: The Process and Practice of Mindful Change* (2nd ed.). New York, NY: Guilford Press.

McCracken, L. M., & Morley, S. (2014). The psychological flexibility model: A basis for integration and progress in psychological approaches to chronic pain management. *The Journal of Pain*, 15(3), 221-234.

Plumb, J. C., & Viladarga, R. (2010). Assessing treatment integrity in acceptance and commitment therapy: Strategies and suggestions. *International Journal of Behavioral Consultation and Therapy*, 6(3), 263.

Page 6: MANUAL GUIDELINES

Below is our draft of the manual guidelines. Please provide any comments in relation to the instructions and the scoring procedure. There is an option to add your comments on this page or at the end of the questionnaire if you would prefer to see the items in the measure before commenting.

The ACT Fidelity Scale (ACT-FS)

This scale is intended to be used by clinicians who are experienced in ACT and understand the principles of the approach. Before scoring the session, familiarize yourself with the scale and the items within it so that you can easily find an item when you see the clinician evidence it during the session.

- As you listen to the session you may find it helpful to make notes in the space next to each item to aide your memory.
- Do not score the items until the end of the session.
- Only score based on behaviours you have observed, not what you think the clinician would have achieved if they had been given longer. This means that it is common to not be able to demonstrate some of the items, especially in a first session.
- Raters should have specific examples in mind when scoring, which are useful to note in the space for comments for each item.
- The clinician's behavior should be scored irrespective of how the client responded to the clinician's attempt.

The items capture four key areas within ACT: Therapist stance, Open response style, Centred response style and Engaged response style. These are outlined below with definitions. In the scale, there are items to score the therapists behaviours as consistent with these areas, and also inconsistent.

Therapist Stance

An ACT stance is equal, non-coercive, and non-judgemental. The therapist should show interest, empathy and warmth. The therapist does not presume to change the client's mind – rather to direct them to their own experience - to guide noticing. The therapist does not lecture.

Open response style

"Acceptance and defusion are key skills that support one's openness to direct experience" (Hayes, Strosahl & Wilson, 2012, p68). "Acceptance is the willingness to experience undesirable thoughts, feelings, and sensations when doing so serves one's goals. Cognitive defusion involves distancing or separation from the content of one's thoughts, a process that reduces cognitive influence without necessarily changing cognitive content" (Yu and McCracken, 2016, p1).

Centred response style

"It is not possible to be open and engaged in life without also being centred in consciousness and in the social, physical, and psychological present. The centre column of the hexaflex functions like a hinge

of conscious and flexible contact with 'the now' (Hayes, Strosahl & Wilson, 2012, p78). "Being present involves being aware of ongoing events. Self as context entails an experience of taking a perspective, or a stance as observer, with respect to one's psychological experiences without getting attached to them, needing to defend them as a matter of identity or to defend against them as if they present a threat" (Yu and McCracken, 2016, p2).

Engaged response style

The Engaged response style is about making "connections with closely held values through daily life actions." (Hayes, Strosahl & Wilson, 2012, p92). "Values are ongoing qualities that one defines as important and desired and that guide one's goals and actions. Committed action is the ability to flexibly persist in actions guided by values, to meet difficulty and to persist again." (Yu and McCracken, 2016, p2).

Scoring of frequency and extensiveness (adapted from Plumb and Vilardaga, 2010).

Give a rating for each of the areas based on the clinician's behaviours you have observed. Ratings are from 1 to 5 where:

A rating of:

Would indicate:

- 1 = Not at all These behaviours never occurred
 - At least one of these behaviours occurred at least once (and may have occurred a few times) and was not addressed in an in-depth manner.
- 2 = A little
 - Some of these behaviours occurred and at least one was addressed in a moderately somewhat in-depth manner.
- 3 =
- 4 = Several behaviours occurred; and some were addressed by the therapist in an in-considerably depth manner.
- 5 = Behaviours occurred great frequency and at least several were addressed by the extensively therapist in a very in-depth manner.

The starting point for each area is 1. Only assign a score higher than 1 if the rater hears examples of the behaviour specified in the items. Be careful not to start rating from the midpoint (3) out. Please only give whole point answers, e.g. do not score 2.5.

ACT consistent Stance = score out of 5

ACT consistent Open Response Style = score out of 5

ACT consistent Centred Response Style = score out of 5

ACT consistent Engaged Response Style = score out of 5

ACT consistency = score out of 20

Page 7: ROUND 1 QUESTIONNAIRE

The measure is divided into four areas (therapist stance, open response style, centred response style and engaged response style), each with consistent and inconsistent items. We would like you to read the proposed items and informed by your expert experience, rate the item on the Likert scales. You may also suggest edits to the wording of the items and you may suggest new items.

Therapist stance

An ACT stance is equal, non-coercive, and non-judgemental. The therapist should show interest, empathy and warmth. The therapist does not presume to change the client's mind – rather to direct them to their own experience - to guide noticing.

Therapist stance - ACT consistent items

11. Therapist states explicitly that they have confidence in the client's ability to make change.

	Not at all <-----> Definitely						
	1	2	3	4	5	6	7
How well does this item capture the above ACT concept?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
How observable is this therapist behaviour?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Do you think this item should be included in the final measure?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

- 11.a. If you would like to suggest any edits to the wording, please re-write the item here:

12. Therapist states or demonstrates a posture of equality i.e. "we both struggle".

	Not at all <-----> Definitely						
	1	2	3	4	5	6	7
	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

- ACT Inconsistent Stance = score out of 5
 ACT Inconsistent Open Response Style = score out of 5
 ACT Inconsistent Centred Response Style = score out of 5
 ACT Inconsistent Engaged Response Style = score out of 5
 ACT Inconsistency = score out of 20

10. Please suggest any edits here:

Remember you will be shown this manual again at the end if you would prefer to comment on it once you have seen the items.

Hayes, S. C., Strosahl, K., & Wilson, K. G. (2012). *Acceptance and Commitment Therapy, Second Edition: The Process and Practice of Mindful Change* (2nd ed.). New York, NY: Guilford Press.

Plumb, J. C., & Villardaga, R. (2010). Assessing treatment integrity in acceptance and commitment therapy: Strategies and suggestions. *International Journal of Behavioural Consultation and Therapy*, 6(3), 263.

Yu, L., & McCracken, L. M. (2016). Model and Processes of Acceptance and Commitment Therapy (ACT) for Chronic Pain Including a Observer Look at the Self. *Current pain and headache reports*, 20(2), 1-7.

How well does this item capture the above ACT concept?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
How observable is this therapist behaviour?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Do you think this item should be included in the final measure?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

12.a. If you would like to suggest any edits to the wording, please re-write the item here:

13. Therapist states or demonstrates understanding that client's circumstances are experienced as difficult (and of the emotions and thoughts that occur in this context).

	Not at all <-----> Definitely						
	1	2	3	4	5	6	7
How well does this item capture the above ACT concept?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
How observable is this therapist behaviour?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Do you think this item should be included in the final measure?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

13.a. If you would like to suggest any edits to the wording, please re-write the item here:

14. Therapist demonstrates interest in the client's situation and psychological experiences.

	Not at all <-----> Definitely						
	1	2	3	4	5	6	7
How well does this item capture the above ACT concept?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
How observable is this therapist behaviour?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Do you think this item should be included in the final measure?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
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14.a. If you would like to suggest any edits to the wording, please re-write the item here:

15. Therapist explicitly notices and points out psychologically flexible responses on the part of the client (open/nonavoidant, aware/in contact with present, actively aligned with goals and values).

	Not at all <-----> Definitely						
	1	2	3	4	5	6	7
How well does this item capture the above ACT concept?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
How observable is this therapist behaviour?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Do you think this item should be included in the final measure?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

15.a. If you would like to suggest any edits to the wording, please re-write the item here:

16. Therapist encourages or shows appreciation for new or developing psychologically flexible behaviour on the part of the client.

	Not at all <-----> Definitely						
	1	2	3	4	5	6	7
How well does this item capture the above ACT concept?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
How observable is this therapist behaviour?	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Do you think this item should be included in the final measure?	<input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/> <input type="radio"/>
16.a. If you would like to suggest any edits to the wording, please re-write the item here:	<input type="text"/>
17. Any new items you would like to suggest for this section?	<input type="text"/>
18. Any comments on the above section? (Please leave below).	<input type="text"/>

NOTE: this last section was repeated for each of the other 7 areas in the measure (Therapist stance inconsistent items, Open Response consistent items, Open Response inconsistent items, Aware response style consistent items, Aware Response inconsistent items, Engaged response style consistent items, Engaged response inconsistent items). The manual was then presented in the same format as before. These pages have not been reproduced here due to their length and repetitiveness.

Page 16: NOMINATION FORM

This study relies on input from experts in the field of Acceptance and Commitment Therapy.

Providing Nominations

71. Do you know any other experts who might like to take part in this study? If so, and you are happy to, please provide their details below.

	Name of Person	Contact Email Address	Any Other Comments
Nomination			
Nomination			
Nomination			
Nomination			
Nomination			

Note that nominated persons will be contacted in the same way that you were and they will not be told who nominated them.

Additional Comments

72. If you have any other comments regarding the above that you wish to share please provide these below.

Page 17: THANK YOU

Thank you for completing this questionnaire.

We will contact you again via email once the next stage of the study (and corresponding questionnaire) is ready for completion.

Please follow this link to return to the:

[Bristol Online Surveys Homepage](#)

Appendix C. Delphi round 2 materials

C.1 Recruitment invitation email for second round

Dear...,

Re: Developing a fidelity measure for Acceptance and Commitment Therapy: A Delphi Study

Thank you for contributing your time to take part in the first round of the Delphi study. Your input is greatly valued and appreciated. We are confident that we have an expert panel of participants and we are delighted with the level of demonstrated expertise and extremely grateful for the level of engagement that people have volunteered for this.

The quality and amount of comments has given us a happy but demanding task and we have met on several occasions to discuss them – particularly items about which a range of opinions were expressed. Of necessity, we have made some tough decisions, made changes to the manual and removed, added and edited different items. For your information, an anonymised summary of ratings and responses is provided in the attached (very long) document, should you wish to read it.

We would appreciate your participation in a second questionnaire to feedback on the revised version of the measure. You will see that some items are similar with different wording due to differences in opinion in the first round, this is intentional and we are asking you to choose which you prefer.

The aim of this round is to choose a small set of final items from a larger pool of possible items. If you are unsure about an item, please feel free to give it a low rating as this will help us to distinguish popular items from unpopular items.

The questionnaire can be accessed by following this link:

<https://leeds.onlinesurveys.ac.uk/creating-an-act-fidelity-measure-a-delphi-study-round-2>

We anticipate that this should be sufficient to achieve consensus. Once we have processed ratings from this round, we will send a final version of the measure for any final comments.

All the information that you provide will be anonymised. Individual email addresses will not be visible to other participants and the results of the second round will be fed back in an anonymous way, similar to the attached document for the first round. This research has received ethical approval from the University of Leeds School of Medicine Ethics Committee (approval date: 19/6/2017; approval ref: MREC16-120).

Whilst your contribution can remain anonymous, we would also like to offer the opportunity of being acknowledged as a Delphi panelist in the write up of this research. Your name would be published but it will not be linked to any of your individual responses. There is an item to state your preference for this in the questionnaire or you can reply by email. If you choose not to take part in this second round and I do not hear from you then I will assume that you wish to remain anonymous.

If you have any questions, please contact me on ps07lo@leeds.ac.uk.

Many thanks,
Lucy

Lucy O'Neill
Trainee Clinical Psychologist, Institute of Health Sciences, University of Leeds, Level 10
Worsley Building, Clarendon Way, Leeds, LS2 9NL

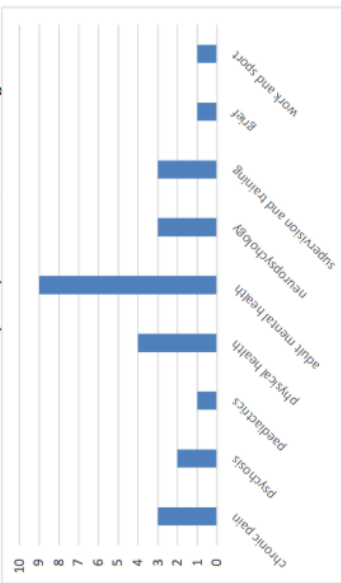
(Supervised by Dr Christopher Graham: C.D.Graham@leeds.ac.uk and Dr Gary Latchford: G.Latchford@leeds.ac.uk)

C.2 Summary of round 1 responses, sent as attachment

ACT-FS feedback summary for Delphi round one

Demographics of participants

- 13 participants
- 10 male, 3 female
- age 32 – 53 years, mean=41.38, SD=6.55
- Mainly research: 6 participants (46.2%), mainly clinical work: 4 participants (30.8%), research and clinical work evenly: 3 participants (23.1%)
- Length of experience with ACT: range 5-23 years, mean=11.31, SD=4.21
- 6 participants (46.2%) recognised by the Association of Contextual Behavioural Science as a Peer Reviewed ACT Trainer
- Area of work: Number of participants who stated working with each client group:



Summary of comments

We are very grateful for the time that participants took in responding to the first round of this Delphi study. The quality of the comments was beyond what we were expecting and we had a lot to consider. We have met on numerous occasions to discuss the comments and after some very interesting conversations we have made some tough decisions. We have made changes to the manual and rating scale, removed some items, edited some items, and added some new items in. Some of the themes that ran through the comments are addressed in these following paragraphs. For further information, the following pages detail the ratings that each item received, along with the anonymised comments from all members of the panel with our responses.

Inconsistent items

Several participants commented on whether the ACT inconsistent items are needed. In response, the manual has been made clearer with an explanation of why the inconsistent items are included, and states that these can be omitted if they are not necessary for the user's purposes. The reason for including inconsistent items here is that a therapist could concurrently demonstrate ACT consistent behaviours and inconsistent behaviours at the same time and these would not be picked up on the positively worded items alone. Literature on Fidelity measures (e.g. Waltz, 1993; Plumb and Villardaga, 2010) highlights the importance of including inconsistent or 'proscribed' therapist behaviours to determine if errors have occurred.

Rating scale

Several participants commented on how the scale to rate items is unclear, with more detail needed as to what we mean by depth. This is a critical point, and across our meetings we debated this at length. Although we see that rating frequency is more objective, in the end the key point we considered is that the therapist displaying more of a behaviour does not necessarily mean they are doing higher-fidelity ACT. Thus, we changed the scale to note whether the behaviour occurred or not with higher points then awarded for doing so more consistently. We recognise that clinical judgement is needed, and a drawback of this decision is that it introduces debate over what 'consistently' means. We have added into the manual that the scale is designed to be used by clinicians who are experienced in ACT and understand the principles of the approach.

It is the function of the therapist's behaviour that is important, not just demonstrating the behaviour

Some participants made the comment that individual therapist techniques were less important than the function of these techniques. This is a strong point that we debated at length, and it proved tricky to make a decision. Some discussion was had around the idea that to rate in this way would require functional analysis for every behaviour – which may be impractical for raters. We also had a discussion about adding 'when in the service of client's goals and values' to the end of consistent items and to add 'when not in the service of client's goals and values' to the ACT inconsistent items to capture the function of the therapist behaviour. But that again might arguably require functional analysis of each technique. We also discussed that ACT is about improving psychological flexibility, which incorporates functional contextualism. Psychological flexibility does delineate some specific 'healthy' ways of behaving, which could then be reflected in specific therapist behaviours.

Recognising the validity of these comments, we have added some items to the therapist stance section to try to capture how well the therapist is aware of the function, e.g. 'Therapist gives the client opportunities to notice the effectiveness of their behaviours (i.e. whether behaviours help/helped them to achieve results consistent with their values)'. We have also added into the manual 'The rater will need to bear the context of the therapy session in mind and consider the function of the therapist behaviour.' The rating scale may also provide an option for users to decide to use the ACT Consistent Stance section alone, if they felt that the complete measure gives too much credence to specific therapist behaviours out of the context of function.

Comments on the draft manual for the ACT FS

Your comments	Our response
I think the direct quotations are distracting and hard to actually make sense of without A LOT of other experience working with these concepts. I wonder if it might be more useful to describe the kinds of things folks should be looking for without using the hexaflex terms. It also feels odd to discuss the trifold, then define it in terms of the hexaflex. Maybe just say in common English what these things mean. I assume the items drill down into these categories, but you want these descriptions to help rather than confuse things.	This has been changed in response to this comment.
I would avoid scoring items on a 1-5 Likert scale, and would use 0-4 to allow for the complete absence of a behaviour (rather than a complete absence achieving a score). Each of the ACT stance, open, centred and engaged descriptors should have examples of how this would appear	This has been changed in response to this comment. This has been changed in response to this

<p>behaviourally.</p> <p>I think the 'ACT Inconsistent...' rating scales would need some narrative to explain them.</p> <p>Is it necessary to have the 'inconsistent' scales? Do fidelity measures of other therapies have such inconsistency scales?</p> <p>Are separate ratings of ACT - consistent and ACT-inconsistent behaviours being asked for? If so, need to be clearer about this requirement and operationalise the ACT-inconsistent criteria in equivalent detail to ACT-consistent</p>	<p>comment:</p> <p>A narrative has been added to the manual to explain why the inclusion of inconsistent items.</p>
<p>Some of the descriptions are topographical rather than functional. For example: 'The therapist does not lecture'. It may sometimes be functional for the therapist to lecture, and I would avoid absolute statements when developing a tool rooted in functional contextualism.</p> <p>It may be the case that a session is 'viewed' as well as 'listened to'.</p> <p>Is there a broader conceptual issue here related to a therapist 'doing ACT' vs. a therapist 'facilitating' ACT. For example, a therapist can facilitate a centred response style in their client, but it is unlikely that they themselves will be 'centred' when formulating on the fly. Is it necessary for the therapist to embody and display the ACT principles, to be doing ACT therapy well?</p> <p>On the therapist stance section I would add something about the therapist's mission also being about uncovering/eliciting/discovering choices in the patient's life and enhancing behavioural repertoire.</p> <p>On ratings 3,4 and 5 it would be useful to have some anchoring points about frequency. So what would be considered "some", "several" or "great frequency". The use of a range of frequencies could be illustrative.</p> <p>Under "would indicate" section, "5=extensively" item, should read "behaviours occurred with great frequency"</p>	<p>This has been changed in response to this comment.</p> <p>This has been added</p> <p>Do you mean that we should or shouldn't add in an item or statement about the therapist embodying ACT principles?</p> <p>This has been changed in response to this comment.</p> <p>The rating scale has been worked on in response to this comment</p> <p>Edited</p>
<p>I don't see how you can rate a therapist behavior irrespective of how the client responds to it. Therapist behavior is only functional insofar it changes clients behavior in a psychological flexible way.</p>	<p>We have added an item into the stance section to try to capture this – "Therapist shows awareness of client's responses to the therapist's behaviour and consequently adjusts their behaviour accordingly."</p> <p>See general comments section</p>
<p>It may be useful to emphasise that ACT goes for function, not form; so, a therapist may be displaying a particular behaviour without explicitly referencing that behaviour or action.</p> <p>Three things on a first reading:</p> <p>a) The first part moves from making this feel like self-rating into making it clear that it's for a clinician rating another clinician. (However, I suspect the authors also intend that it could be self-rated, e.g. via recording.) I think this could usefully be set out from the very beginning, i.e. "This is a scale intended to be</p>	<p>a) This has been added</p> <p>b) We have edited the scoring so this has (hopefully) been</p>

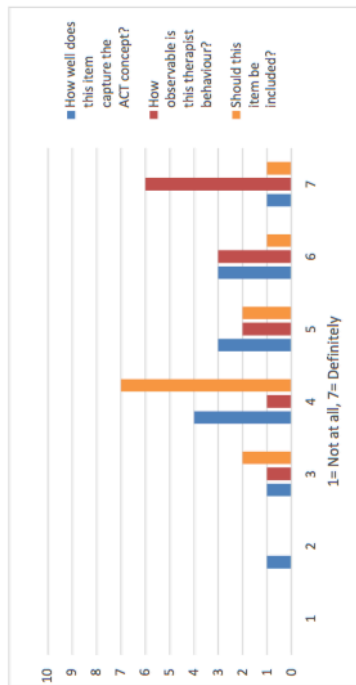
<p>used as a way of clinicians rating other clinicians, or rating themselves from a recording' (or similar).</p> <p>b) I'm not clear as to what the authors mean by "addressed" in the scoring. This may of course become clearer as I progress with this survey.</p> <p>c) I'm confused at this stage as to how there can be both a consistency "and" inconsistency score: again, this may of course become clear. However, if these instructions are going to be people's first introduction to the measure, it might be helpful to consider this.</p>	<p>made clearer now.</p> <p>Glad it became clearer as the survey progressed. We will add clearer instructions from the start.</p>
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Further comments on the draft manual from the end of the survey

Your comments	Our response
<p>Add behavioural descriptors/examples of the therapist engaging in ACT consistent and ACT inconsistent behaviours</p>	<p>Added</p>
<p>Re: my earlier comments on the manual ...</p> <p>a) stands as before.</p> <p>b) I continue to be unsure about "addressed". Having been through the questions as they stand, the scale appears to be about observation of therapist behaviours. So, frequency of the described behaviour strikes me as something that can certainly be scored ... but, if I was trying to score this, I would be flummoxed by what e.g. 'addressed in a moderately in-depth manner' actually meant.</p> <p>c) Makes sense now – ignore my previous comment.</p>	<p>See general comments section</p>
<p>I worry about "The clinician's behavior should be scored irrespective of how the client responded to the clinician's attempt." I feel like how the client responds is crazy important. e.g., if the therapist is TRYING to reinforce values clarification, but it's not working because they haven't identified good reinforcers for this client, they're not doing good ACT.</p>	<p>See above comment</p>

Therapist stance – ACT consistent

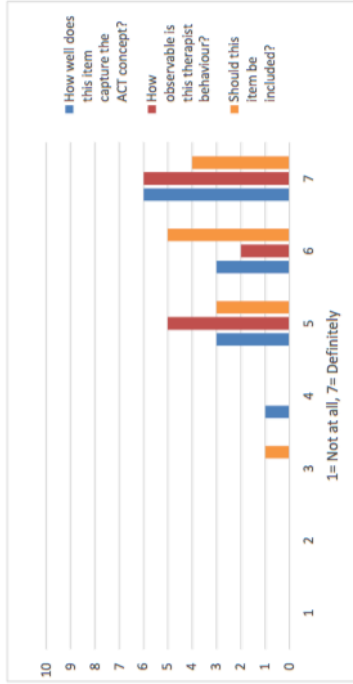
1. Therapist states explicitly that they have confidence in the client's ability to make change.



(Should this item be included? total score= 57, mean score= 4.38)

Your comments	Our response
Depends on stage of therapy. Creative hopelessness? What if the client hears 'I have confidence that you can change, and if you can't, you are a failure'?	This item received a low score in answer to 'should this item be included', the comments and suggestions are mixed with no clear way to resolve. This item has therefore been deleted from the scale.
I would not say "explicitly". Usually, the therapist show that he/she have confidence with the client's ability with his/her behavior within the session, not necessarily stating it explicitly.	
Could be delivered in a compliance focussed way. Could be nudging / cajoling. That's the trouble with this kind of item, it could be said in a highly functional way or it could be mistimed, done poorly, or simply reinforce compliance.	
Therapists conveys to the client that they have confidence in the client's ability to make change.	
I'm not sure about this one, something about the word confidence. May be better to be more tentative 'I've seen some people really get on board with this, whilst others do not.'	
Maybe "...indicates explicitly..."? I'm thinking, for example, of something like saying, "And what would changing all this involve?" In this way, I'm not stating that I think it's possible, but I am indicating this pretty explicitly and in a way that helps me assess client rigidity. Maybe they just accept the shift and answer, but if they don't, if they say "I can't! It's too hard!" that's meaningful, too.	

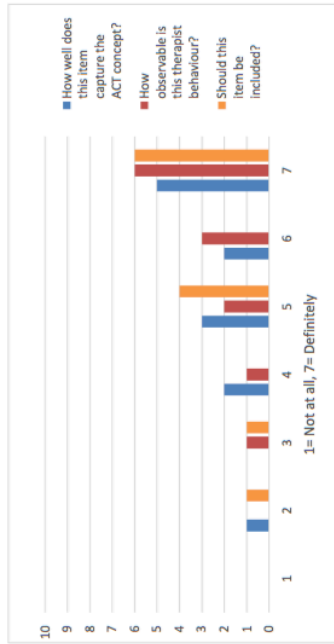
2. Therapist states or demonstrates a posture of equality i.e. "we both struggle".



(Should this item be included? total score= 76, mean score= 5.85)

Your comments	Our response
All people struggle	-This has been added to the item. -I.e. changed to e.g.
We "all" struggle.	
As stated, but ending e.g. "we all struggle" ((because i.e. implies specified wording is the only acceptable form))	
3a - it demonstrates it fairly well, but would we see it in enough frequency across clients to include?	The item has been broadened to include more behaviours.
This is a tricky one as it can be demonstrated in several ways beyond just verbal cues. Some other examples could be given (e.g. therapist shares a personal struggle in a contextually sensitive manner)	This has been added to the item
Again, this is usually seen in the therapist's behavior within the session, but not necessarily with explicit sentences such as "we both struggle".	We've added in or shares an example that is contextually relevant' to cover this
How might this better acknowledge the different magnitude of individual struggle: e.g. we both struggle, but I recognise that perhaps you are currently struggling more; that more things have happened to you, with which you might be struggling? Etc	We have decided not to add this part in as it may not always be true and would therefore narrow down the opportunities that the therapist would get for scoring this item.
The "we both struggle" piece throws the item off, I think. I don't know that the equality piece is always about explicit or implied self-disclosure, but I think this suggests such.	Item has been edited

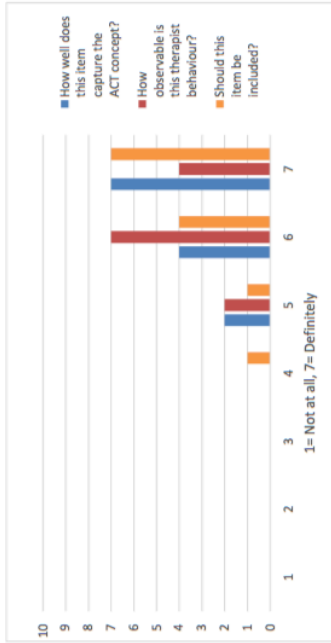
3. Therapist states or demonstrates understanding that client's circumstances are experienced as difficult (and of the emotions and thoughts that occur in this context).



(Should this item be included? total score= 67, mean score= 5.58)

Your comments	Our response
Not unique to ACT though - will overlap with general therapy skill regardless of approach, which may have unintended shared variance if this measure was to be later used in clinical trials with comparisons against other therapies	We discussed this point but we decided that it would difficult to ensure that all included items were specific to ACT alone.
Therapist states or demonstrates that it is natural to experience distress or struggle in presence of circumstances such as those experienced by client	This suggested item has replaced the original
This item's wording feels quite cumbersome and not straightforward enough. Maybe us a wording connected to the following question including the aspect of the clients experiences (psychological, physiological, social)	Replaced with above suggestion
I don't get the parenthetical bit. The circumstances are of the emotions and thoughts? Can you reword to clarify?	Replaced with above suggestion

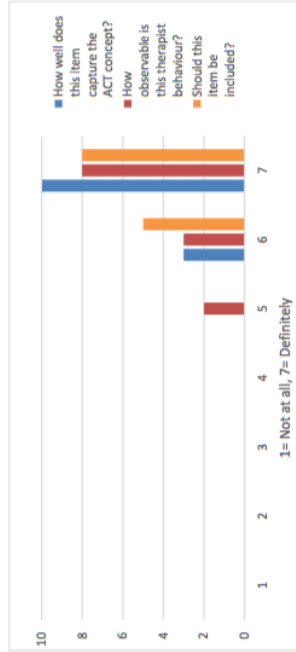
4. Therapist demonstrates interest in the client's situation and psychological experiences.



(Should this item be included? total score= 82, mean score= 6.31)

Your comments	Our response
Not unique enough	It is not unique to ACT, but it is still a necessary skill for ACT to be effective and achieved a fairly high score, and therefore we believe it warrants inclusion in the next round

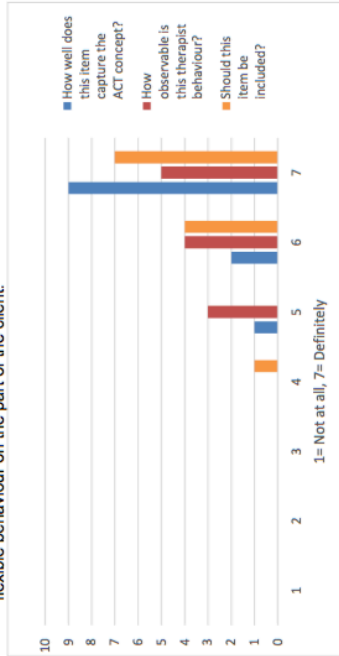
5. Therapist explicitly notices and points out psychologically flexible responses on the part of the client (open/nonavoidant, aware/in contact with present, actively aligned with goals and values).



(Should this item be included? total score= 86, mean score=6.62)

Your comments	Our response
rather than 'points out' - 'highlights' or 'identifies' might be better.	Wording changed to 'highlights'

6. Therapist encourages or shows appreciation for new or developing psychologically flexible behaviour on the part of the client.



(Should this item be included? total score= 77, mean score=5.92)

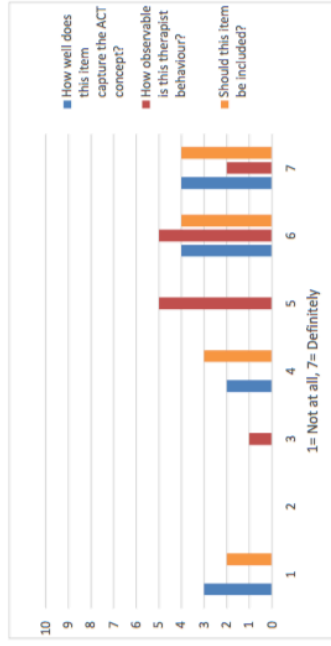
Your comments Could be tricky to identify/might be functionally equivalent to an avoidance behaviour. Some anchoring examples could be provided maybe add "or otherwise reinforces"? Just thinking functionally - some clients' repertoires aren't reinforced by appreciation or encouragement.	Our response Item deleted. It is similar to the above, more popular item. This item also runs the risk of piance related reinforcement.
--	---

New items you suggested for this section Therapist explicitly acknowledges that the client makes his or her own choices and the role of the therapist is to help the client to make those choices the best he or she can. 1. The therapist demonstrates a willingness to sit with difficult subject matters. 2. The therapist promotes active willing choice (e.g. willingness form the client to disclose or to address difficult experiences). 3. The therapist promotes choice and expansion of behavioural repertoire. Therapist facial expression, tone of voice and other non verbal behaviour could be described as warm, empathic and encouraging	Our response This item has been added This has been edited slightly and added This item has been added
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Your comments on this section Very hard to get past the form versus function aspect. Every one of these therapist behaviours could be delivered in a functional manner or could be just formal and non functional	Our response See main comments section
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Therapist stance – ACT inconsistent

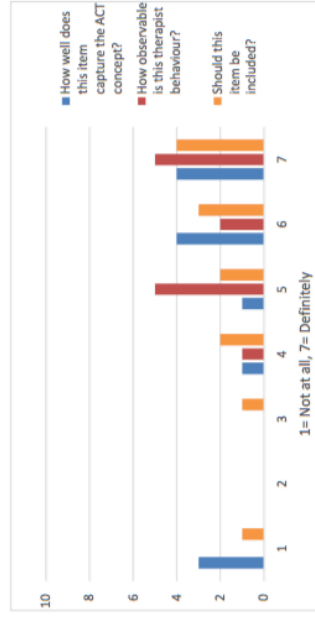
1. Therapist presents a posture of superiority or authority.



(Should this item be included? total score= 66, mean score=5.08)

Your comments Could be tricky to identify/might be functionally equivalent to an avoidance behaviour. Some anchoring examples could be provided maybe add "or otherwise reinforces"? Just thinking functionally - some clients' repertoires aren't reinforced by appreciation or encouragement.	Our response This item has been edited.
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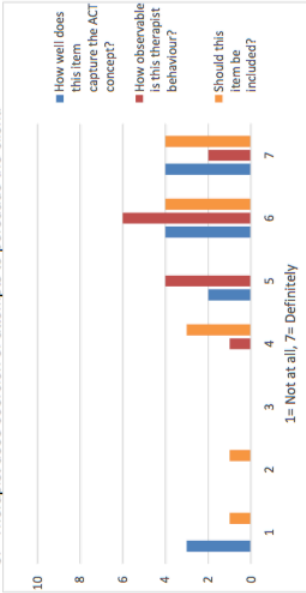
2. Therapist lectures the client.



(Should this item be included? total score= 68, mean score=5.23)

Your comments	Our response
As above - function?	See main comments section
(need to operationalise "lectures") Therapist gives prolonged explanations, or suggests client is incorrect	Changed to reflect this comment
I think a definition of "lectures" might usefully be provided here. Might providing psychoeducation be seen in some contexts as "lecturing", for example?	Changed to reflect this comment
This is a difficult one to assess, as some aspects of ACT involve some form of psychoeducation which depending on the therapist's own style could be perceived as lectury.	Changed to reflect this comment

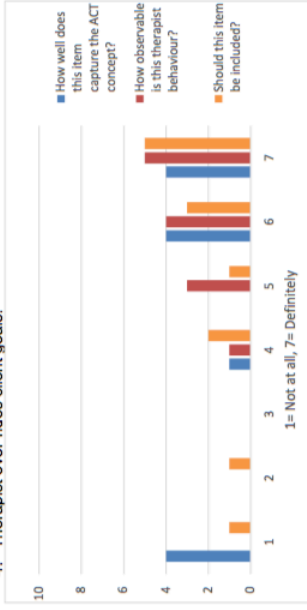
3. Therapist uses coercion or attempts to persuade the client.



(Should this item be included? total score= 67, mean score=5.15)

Your comments	Our response
Despite what ACT says, the whole process of the therapy is an attempt to persuade the client to do things differently (it just uses different - language and skills to achieve those aims).	We have made this item clearer now so that it is getting at episodes of coercion rather than overarching therapy
Not clear what you mean by coercion	Changed to reflect this comment

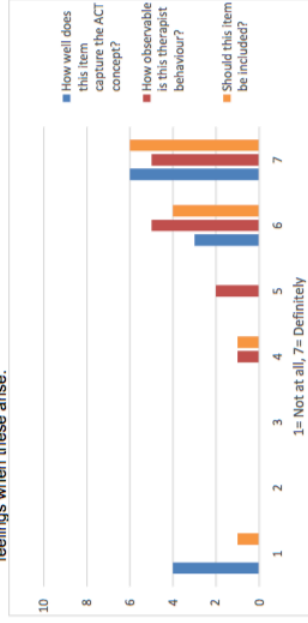
4. Therapist over-rides client goals.



(Should this item be included? total score= 69, mean score=5.31)

Your comments	Our response
'Over-rides' is not so clear - consider an alternative	This item has been deleted. It received a low score and another item in the 'engaged response style' section covers this in a clearer way.
Again difficult to evaluate. First suggestion would be to re-word goals for values. Secondly it is often difficult at early stages to assess if a client has or has not a specific value or if they just haven't discovered it themselves (lack of awareness of what is really important for them).	
The therapist might be able to observe some clues regarding specific valued directions and try to explore these with the client for further clarification. This could be perceived as over-riding the clients values.	
I think this is too broad. If a client goal at the first session is "never be anxious again", a degree of "over-riding" is indicated. This may be a question of semantics, but I think it's an important one.	

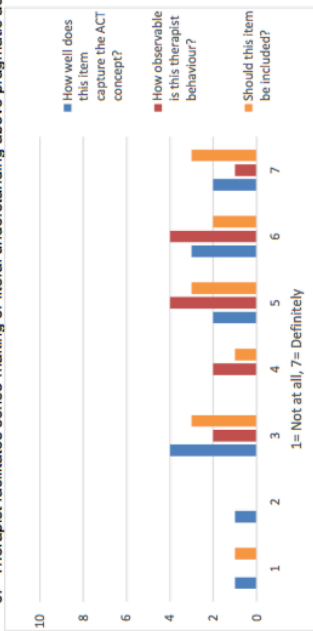
5. Therapist rushes to reassure or diminish "unpleasant" or "difficult" thoughts and feelings when these arise.



(Should this item be included total score= 71, mean score=5.92)

Your comments	Our response
Functionally this is a good item. I think I'd prefer all of these items to be recast in positive terms, I'm not sure why - its just a hunch. I also think you could get greater subtlety if it were worded something like "The therapist is a little too quick to move on from difficult material or diminish unpleasant feelings" or "Therapist keeps the conversation at a conceptual level, in order to avoid difficult feelings" - these are more like what you see in therapists, rather than a 'rush to diminish' - its more subtle.	Changed to reflect this comment and new item added

6. Therapist facilitates sense-making or literal understanding above pragmatic action.



(Should this item be included total score= 62, mean score=4.77)

Your comments	Our response
The meaning of this item as currently expressed will not be immediately clear to everyone. This should be rearticulated - I am not clear on what the key purpose of the question is. The item makes it sound like sense making is bad. Pragmatism and integrations are ways to make sense in ACT. I think you are approaching sense making an old way. Checkout the more recent work on functional coherence by RFT folks (e.g. Villatte, Villatte, Hayes 2016), the item should be rewritten to clarify the difference between helpful and unhelpful sense making. At times this could have functional utility.	Changed in response to this comment Changed to reflect this comment
Language wise this might be difficult to assess if no information is provided regarding the function that the therapist is targeting. Some more cognitive style approaches can be ACT consistent if they enable or kick start the workability conversation.	Changed to reflect this comment The rater would need to use clinical judgement about whether it is promoting workable action or whether the therapist is introducing it as a goal of therapy. Hopefully now we have edited the item this is conveyed better.

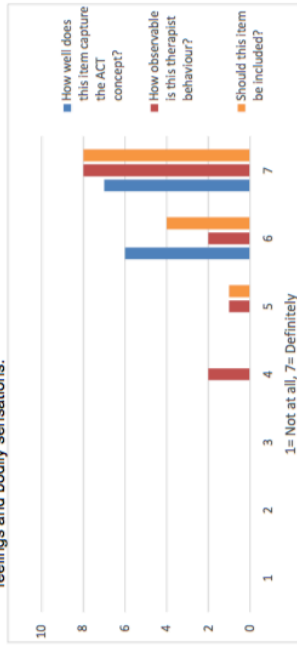
Again - functional. Sense making is OK, when it leads to workable flexible responding. Engaging in action might be non-functional, if the pattern was 'get active in order to get rid of feelings'. Looking at the work of Matthieu Villatte, you would see a fair amount of sense making, using RFT to deliberately alter the functions (and form) of cognitive and emotional events. The difference he looks for is functional coherence versus essential coherence. Example of "literal understanding" would be of benefit here.	Changed to reflect this comment
Added (i.e. aligning beliefs with an objective reality)	

New items you suggested for this section	Our response
No suggestions	

Your comments on this section	Our response
Same point re functional versus form	See main comments section
It seems to me that it can be difficult to determine to what degree the behavior of the therapist is inconsistent, unless it is very obvious and continuously done. Difficult to differentiate eg appropriate new information provision, supporting coherence, caution about e.g. distress reduction goals Vs ACT inconsistent stance.. Depends hugely on context. Experienced clinician as rater should be able to judge the context and function, but maybe need to flag this up in instructions? Inconsistent is way easier!	Scoring system updated to reflect this Have edited the manual in response to this comment

Open response style – ACT consistent

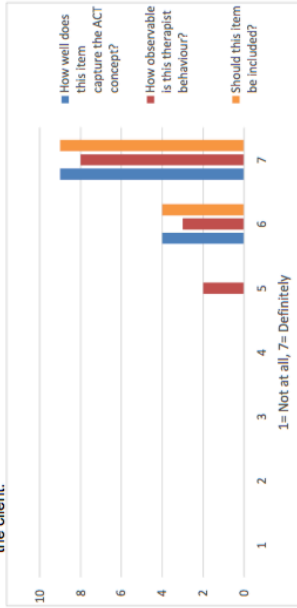
1. Therapist encourages the client to adopt an open and accepting stance to thoughts, feelings and bodily sensations.



(Should this item be included? total score= 85, mean score=6.54)

Your comments maybe clarifying that this can be implicit or explicit? e.g., if I ask more questions about a tough experience, I'm encouraging the client to hang with it.	Our response Item updated to reflect this comment
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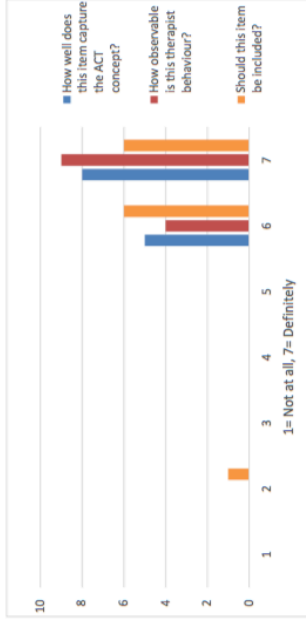
2. Therapist facilitates the observing/describing of thoughts and feelings on the part of the client.



(Should this item be included? total score= 87, mean score=6.69)

Your comments maybe add to the end of the sentence "in a non-judgemental manner"	Our response New item added - "Therapist offers the client opportunities to take a non-judgmental stance towards their thoughts and feelings." Updated to reflect this
Your comments Therapist facilitates the clients observation of thoughts, feelings and sensations. AND their own responding to those private events AND the consequences of those responses. (This is an example of what I have been trying to get at by function - a therapist can facilitate observation and description of thoughts and feelings, but for what purpose? What is the function of doing so? The suggested edit is designed to ensure that these skills are more closely tied to functional analysis	

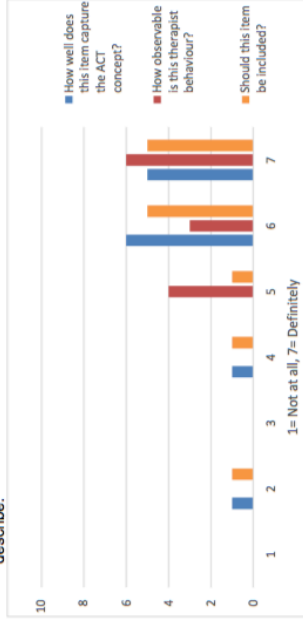
3. Therapist models the observing/describing of thoughts and feelings in their own experience.



(Should this item be included total score= 80, mean score=6.15)

Your comments No comments	Our response
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4. Therapist helps the client to notice that thoughts are separate from the events they describe.

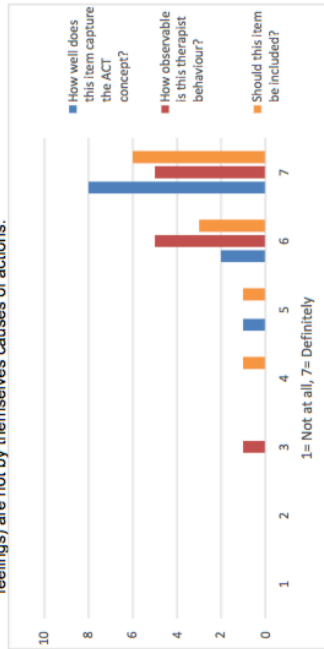


(Should this item be included total score= 76, mean score=5.85)

Your comments Good item.	Our response
Your comments This can be ACT consistent and ACT inconsistent, depending on the function. If we think of thoughts as behavioural responses learned through a history of specific contingencies,	Our response See main comments

then they cannot be separate from the events they describe. However if we take a mechanistic approach and see thoughts as mental constructions that can influence behaviour then this statement would be consistent with ACT. I think it is a slippery slope to encourage a comparison between thoughts and events, and evaluating the accuracy or implication of that comparison.	See main comments.
Maybe something like "notice thoughts AS separate"? I feel like this item pulls for therapist explanation, where I'd want this item to capture something as simple as "Can you hear how your mind is struggling to let this go?"	Edited to reflect this

5. Therapist helps the client notice that psychological experiences (thoughts and feelings) are not by themselves causes of actions.



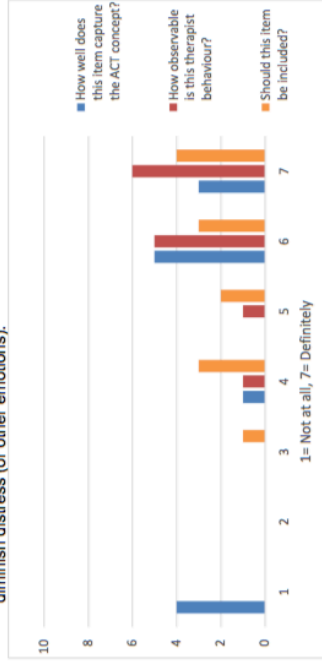
(Should this item be included total score= 69, mean score=6.27)

This one feels a little old too. I agree that thoughts and feelings are not by themselves causes of actions but too often in ACT this is understood as thoughts and feelings have no influence on actions. I suggest rewording in a way that doesn't make it sound like thoughts and feelings are completely irrelevant to functional analysis and shaping strategies.	Your comments
I think this would depend on how it is done. If done conceptually I wouldn't necessarily think it is good ACT. I think your including the words "Therapist helps the client to NOTICE is key here - i.e. They guide the client to their own experience of that rather than just telling them same here? Maybe something like "to notice psychological experiences without attributing to them the power to cause actions"?	Our response
Item updated to "Therapist helps the client to notice that they have a choice over their actions in the presence of whatever psychological experiences (thoughts and feelings) are present"	Your response
Edited and added as alternative- "Therapist guides the client to notice that psychological experiences alone do not have the capacity	

	to cause actions.'
New items you suggested for this section	Our response
No suggestions	
Your comments on this section	Our response
This is clear and focused.	
Items 30 and 31 may not always be necessary in a treatment.	

Open response style – ACT inconsistent

1. Therapist encourages the client to enact behaviours as a means to control or diminish distress (or other emotions).

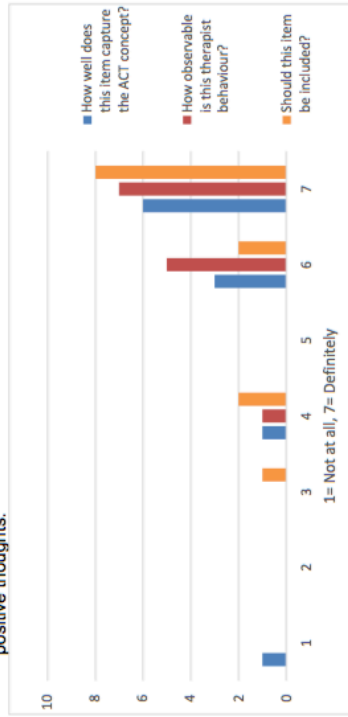


(Should this item be included total score= 71, mean score=5.46)

This is a tough one - arguably mindfulness exercises etc. can be a way to control or diminish distress - depends on your perspective	Your comments
The wording is quite cumbersome here. Does the therapist promote control/avoidance/elimination behaviours targeting the clients' experiences?	Your response
Therapist encourages the client to enact behaviours as a means to control or diminish distress (or other emotions) as the optimal way of acting.	Our response
There are questions of pragmatics and workability here: e.g. if a person would benefit from learning 7-11 breathing as a way of responding to incipient panic, this question would appear to penalise that. There is also a question about the importance of approach behaviours: most folk I work with will respond in the beginning to mindfulness meditations by saying they're 'calming' or	Your response
This has been blended with the original item- see below	
This has been blended with the original item- see below	
Item edited to "Therapist encourages the client to attempt control or to diminish distress (or other emotions) as the primary goal of therapy." Hopefully this distinguishes between workability and	

<p>"relaxing". My response will be along the lines of "if that feels nice for you, I'm pleased – though that isn't actually the goal of the exercise". However, this puts us in an interesting position: the client is doing something which they see, in the context of "early therapeutic contact", as providing "control" (the same could probably be said of attending therapy!) So the skill here, I think, is in attending to and addressing this over time. In short, I fear this item could be unduly penalising in the early stages of therapy.</p>	<p>primary goal of therapy.</p>
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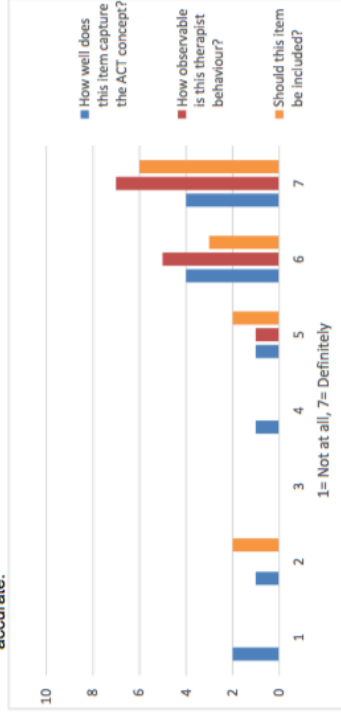
2. Therapist encourages the client to "think positive" or to substitute negative for positive thoughts.



(Should this item be included total score= 79, mean score=6.08)

<p>Your comments No comments</p>	<p>Your response</p>
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3. Therapist facilitates detailed discussion of whether client's thoughts are true or accurate.



(Should this item be included total score= 74, mean score=5.69)

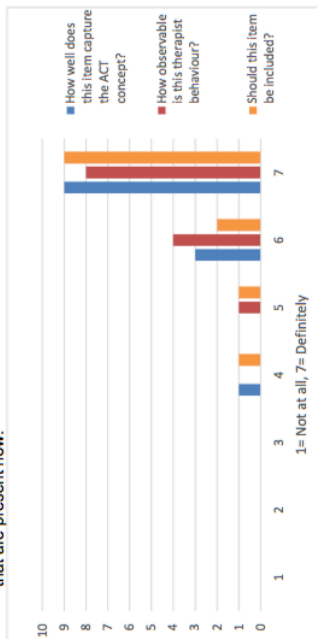
Your comments	Our response
<p>Be careful not to exclude the process of tracking from ACT. Tracking consists of comparing rules to experience. This is not completely different from checking their accuracy, the difference between ACT and CT here is that ACT doesn't seek external objective truth but good match between rules and experience.</p>	<p>Updated in response to this</p>
<p>I think this may well take place when talking through defusion at the early stages, so this item would need to be carefully considered</p>	<p>This has been made more explicit now</p>
<p>Again, tricky one. Some thoughts are true and the veracity of those thoughts can be an enabler or disabling of value based behaviour. I think there needs to be a bit more of context surrounding this question. Maybe add that this is done in the service of trying to rationalise/figure out experiences.</p>	<p>This has been made clearer now</p>

New items you suggested for this section	Our response
<p>Therapist encourages or reinforces view that fusion or avoidance are implicitly bad, rather than judging them on basis of workability</p>	<p>Item added</p>

Your comments on this section	Our response
<p>I rephrased item 34, since sometimes clients may use some form of control as a way to turn towards letting go of control. It may be a needed step before control can be let go of all together.</p>	

Centred response style - ACT consistent

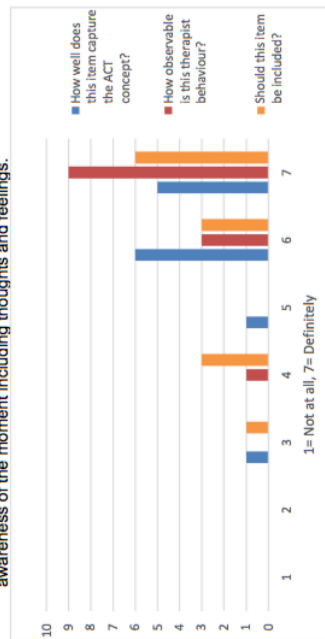
1. Therapist directs the client's attention to the thoughts, feelings and bodily sensations that are present now.



(Should this item be included total score= 84, mean score=6.46)

Your comments Ok, but why only present now? Can't an ACT therapist orient a client to observe thoughts feelings and sensations that were present in a past episode (e.g. the sweet spot exercise)	Our response New item added - Therapist directs the client to notice the thoughts and feelings that arise in a certain context or situation.
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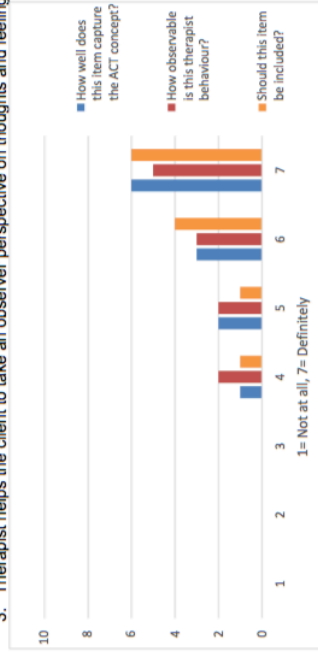
2. Therapist uses present-moment-focus tasks (mindfulness tasks) to increase awareness of the moment including thoughts and feelings.



(Should this item be included total score= 75, mean score=5.77)

Your comments Same remark as above. Don't over focus ACT on the present moment. A lot of ACT work is done in exploration of past, future, and hypothetical events. Mindfulness tasks can also facilitate avoidance (on the part of therapist and client) - so this would need to be functionally considered.	Our response This would hopefully be captured by other items. This would hopefully be captured by an inconsistent item - 'therapist introduces or uses mindfulness and/or self-as-context exercises as methods to diminish unwanted thoughts, emotions and bodily sensations.'
Mindfulness tasks is a bit of a loaded term for me as it can be interpreted as the therapist doing formal mindfulness exercises. These can be introduced, but I would be looking more for examples where the here and now were paid attention to on purpose (despite it being part or not of a formal exercise). Also, a therapist applying ACT in a formulaic and context insensitive manner could score quite highly on this item (e.g. the therapist that is following a manual and shoehorns a mindfulness exercise because the manual says that is what you are supposed to do on session)	This would hopefully be captured on an inconsistent item - 'therapist introduces mindfulness or self-as-context exercises as formulaic exercises'
Therapist uses present-moment-focus tasks (e.g. mindfulness tasks) to increase awareness of the moment including thoughts and feelings tasks and/or exercises maybe the word tasks could be exercises?	Edited
not sure about "tasks." Is there another word that would allow it to capture informal practices?	Edited

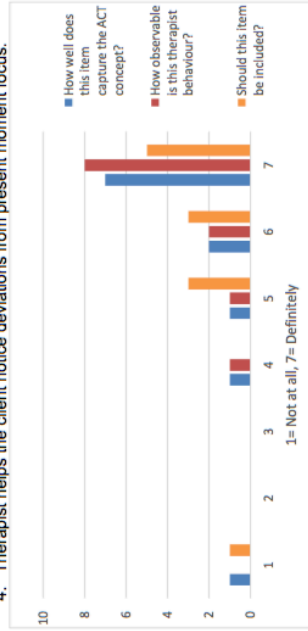
3. Therapist helps the client to take an observer perspective on thoughts and feelings.



(Should this item be included total score= 75, mean score=6.25)

Your comments would 'Therapist helps the client to notice his/her own thoughts and feelings' work? Accurately noticing the function of this can be tricky to train, identify, and encourage. My experience is that self-as-context is the aspect of the Hexaflex with which clinicians have the most difficulty: I suspect, then, that there would be benefit in giving examples of what this behaviour might look like. I think this is trying to capture self-as-context, but I'm not sure the words discriminate well enough. Maybe something like "to notice the self as distinct from the thoughts and feelings occurring in the moment"?	Our response Edited to below suggestion Example added Edited to this
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4. Therapist helps the client notice deviations from present moment focus.

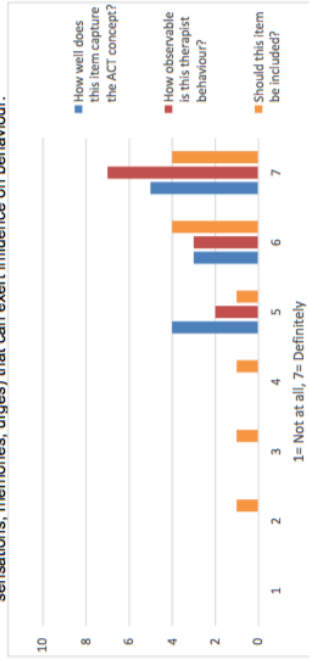


(Should this item be included total score= 69, mean score=5.75)

Your comments 'deviations' may be unclear. 'Moved away' might work better. Same remark as above on the present moment. You make it sound like ACT needs to work only on present experiences.	Our response Edited as below New item added for other situations- 'Therapist directs the client to notice the thoughts and feelings that arise in a certain context or situation.'
I would add at the end "when this is part of an unworkable agenda". Since we want to learn about the clients learning history, some deviations from present moment focus are actually helpful. Again it depends on how its done. Staying present can be functional or non functional. The therapist calling attention to it the same. So the item could be more like, the therapist helps the client to track when they go away from the present, or helps the client to become more	Edited as below. Updated to 'Therapist helps the client to notice the stimuli (thoughts, feelings, situations) that disconnect them from the present moment'

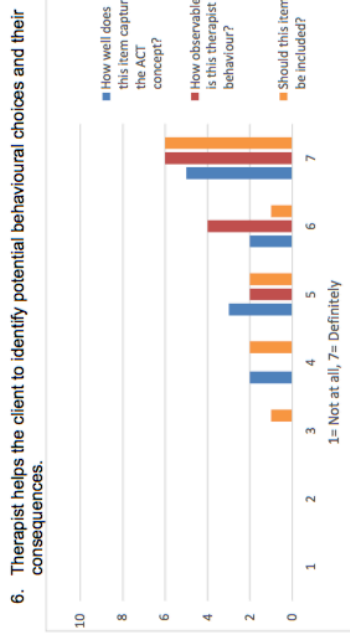
aware of what hooks them away from the present. I'm also thinking there may be times the therapist could help them track that boosing the present focus is also an experiential avoidance move (but I'm struggling with how to word that)	Another item added – therapist helps the client to track when they move away from being in the present moment
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5. Therapist helps the client to identify the situation elements (thoughts, feelings, sensations, memories, urges) that can exert influence on behaviour.



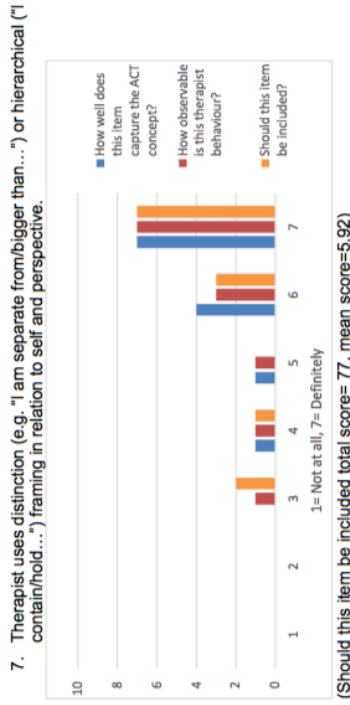
(Should this item be included total score= 66, mean score=5.5)

Your comments Therapist helps the client to identify the INTERNAL situation elements (thoughts, feelings, sensations, memories, urges) that can exert influence on behaviour. I fell over "situation elements" at a first reading – suggest "elements in a situation"?	Our response Item deleted. Low score and similar to previous item which has been updated to 'Therapist helps the client to notice the stimuli (thoughts, feelings, situations) that disconnect them from the present moment'
It's not clear to me if this is referring to elements outside of the therapy room. I think it should focus on the work in the room "that are influencing their behavior in session"	



(Should this item be included total score= 69, mean score=5.75)

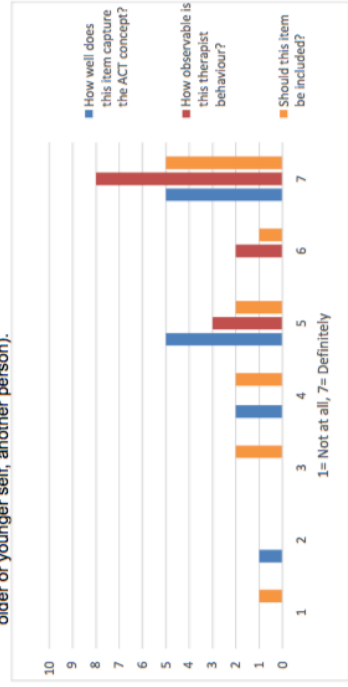
Your comments	Our response
Tricky - identifying 'behavioural choices and their consequences' could turn into 'therapist knows best', cognitive restructuring, control agendas etc. perhaps?	Item to be deleted.
The term consequences can be loaded. I believe the goal is not to consider consequences as "will this make me feel better" or "will this make me feel worst", but rather to see consequences as "are you engaging with valued life activities?". I think this aspect needs to be introduced in this item for it to work.	Covered by other items in 'engaged section'
It is ACT consistent but feels like it should be saved for the later section.	
"And their potential consequences"? "And their potential short- and long-term consequences"? It feels like this would benefit from a little more clarity. Same here. I would focus on the behavior the therapist can directly shape. And it needs to be experiential. "Identify" sounds very mental. Maybe something like "helps the client generate options for behavioral choices and notice anticipated consequences of those choices"	



(Should this item be included total score= 77, mean score=5.92)

Your comments	Our response
Bigger than is comparative framing.	Item deleted.
Very tough to measure accurately I imagine	Requirement of rater to have expert knowledge and difficult to measure, would likely not be accurate.
Rater needs to have a minimal grasp of RFT and to have read this work to be able to rate	
I'm not sure if this is different than what the therapist would be doing in most SAC interventions i.e. observer self exercises.	
Not sure what this is going for exactly. Seems strangely topographically specific compared to the others. Is it referring to stuff like "I am more than my teaching evals"? Shouldn't the focus be on the therapist helping the client do this rather than the client saying stuff like that?	

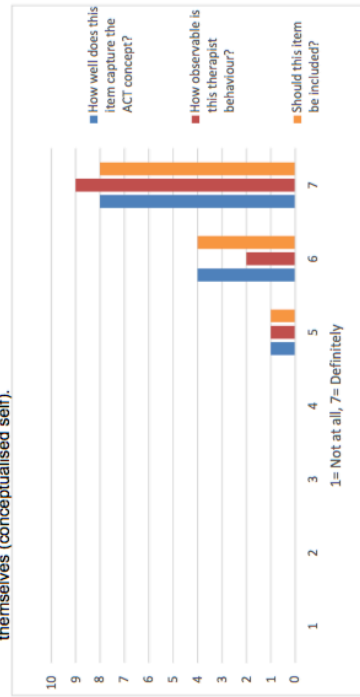
8. Therapist encourages the client to shift to a different perspective (for, example, an older or younger self, another person).



(Should this item be included total score= 66, mean score=5.08)

Your comments	Our response
Might this run counter to the 'being present' focus	
I like this item, but not sure it is ACT consistent. I use it, but it doesn't really fit with here-now relations (e.g., centred)...	
This is too vague. All therapies use perspective taking shifts. You need to clarify the purpose, I think.	Added that the purpose is to give greater flexibility in perspective Edited to make clearer
It is not clear. I would suggest focusing on temporal perspective taking regarding the amplification of the consequences of avoiding versus valued behavior while accepting discomfort	
This is a standard ACT technique, but many of us are guilty of using it when we don't know why we are using it. I could rate this item in a session and it not be a good ACT move. Perhaps it could tied more closely to a purpose for doing so? e.g. in order to create greater flexibility of perspective (deictic relational fluidity) or to foster self compassion or self acceptance, or to contact the consequences or costs of current action	
This could be subsumed under 'observer self' exercise too I reckon.	Added
"This sounds a bit explicit to me. Maybe the word "encourages" sounds like they're saying things like "You should really..." It might miss things like, "Goodness. It sounds like she was really upset," or "Do you worry what it's like for me to sit with you in this?"	Edited to reflect this comment
Maybe something like "gives the client opportunities to...?"	

9. Therapist encourages the client to notice labels/evaluations/stories that they attach to themselves (conceptualised self).

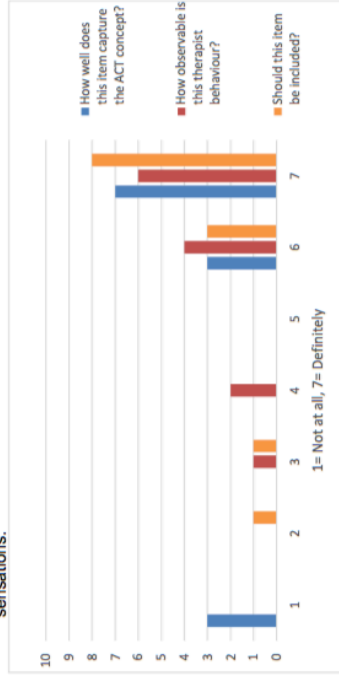


(Should this item be included total score= 85, mean score=6.54)

Your comments	Our response
"maybe shifting to the now?" "notice when they are attaching stories/labels/evaluations to themselves"	Edited to reflect this comment
New items you suggested for this section To be paired with item 43: "Therapist helps the client to identify the EXTERNAL situation elements (e.g. locations, behaviour of others, time of day) that can exert influence on behaviour." I think there may be something useful around "Therapist locates the session itself in the here and now", though I feel that trying to explain what I mean by this would require a very long text box. At base, it comes back to the idea that it's very easy for both therapist and client to get caught up in each other's conversation: how might we measure the therapist's ability to unhook from this and to bring both their awareness and the client's back to the moment, as often as is necessary?	Our response Item 43 has been deleted. Low score and similar to previous item Added new item to cover this - Therapist helps the client to track when they move away from being in the present moment
Your comments on this section Not all items are always necessary in treatment. This does not mean the therapist is acting inconsistent with ACT This was a tough one.	Our response Manual updated to reflect this

Centred response style - ACT inconsistent

1. Therapist introduces or uses mindfulness and/or self-as-context ideas as methods to control, diminish or distract from, unwanted thoughts, emotions and bodily sensations.

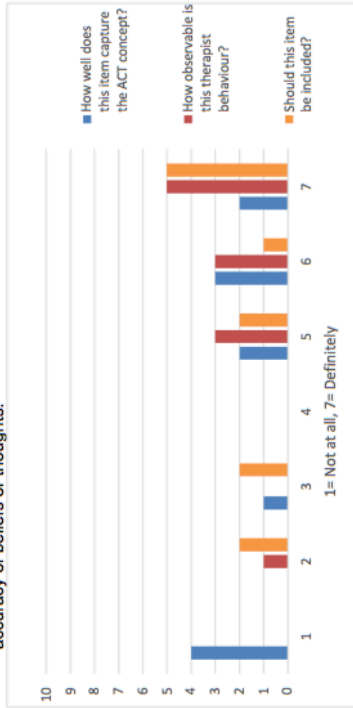


(Should this item be included total score= 79, mean score=6.08)

Your comments	Our response
Great item - but tough to measure (it essentially would require a full functional analysis of the therapist/client	Manual edited to reflect this

interaction)	
Add "or as a formulaic exercise)	Added this as a new item
See my comments earlier about approach behaviours: this appears a much more workably-worded question. That said, I suspect there is a complex semantic question about "distract from", and I wonder if "control or diminish" actually sums things up well enough?	Edited in response to this

2. Therapist uses mindfulness and/or self-as-context exercises used to challenge the accuracy of beliefs or thoughts.



(Should this item be included total score= 61, mean score=5.08)

Your comments	Our response
Same comment as earlier about accuracy. Be careful not to imply that ACT is never interested in comparing thoughts/beliefs/rules to experience.	
Again, good item - as above	
Please note the grammar on this item	Grammar corrected
awkward... "uses... used"	

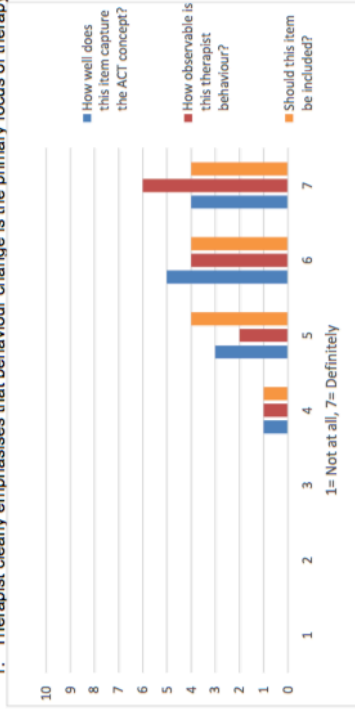
New items you suggested for this section	Our response
Therapist fails to respond appropriately to client reporting mindfulness and/or self-as-context ideas as methods to control, diminish or distract from, unwanted thoughts, emotions and bodily sensations.	Added but worded as something that therapist does rather than doesn't do
Therapist encourages perspective taking as a moral imperative or social rule.	Added

Your comments on this section	Our response
Again, just something about the inconsistent items that I have a hunch that I wouldn't want to see them on a rating scale. My hunch is you will get more error variance, and clinically its better.	See main comments section. Manual updated to make this

if the scale tells the person being rated what they should be showing rather than what they shouldn't show. The idea of having negative and positive items in a scale really comes from psychometric theory and its about breaking up response habits so that people do read each question. But in fact there is some evidence that they simply create method variance (systematic error). Given that this is not a self report but an observer rated scale I think there is less need for having reversed items in.	clearer.
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Engaged response style - ACT consistent

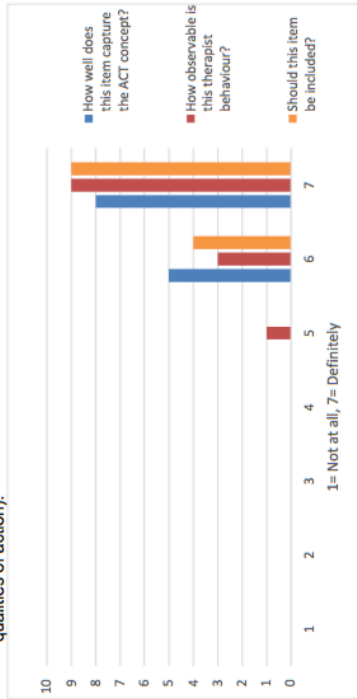
1. Therapist clearly emphasises that behaviour change is the primary focus of therapy.



(Should this item be included total score= 76, mean score=5.85)

Your comments	Our response
The wording is a little weird to me. Of course, from a CBS perspective, behavior change needs to happen for the client to get better, but I think it is important to include all behaviors (i.e. thinking too). Sometimes, people get better because they conceptualize their experiences differently, not because they change their (overt) actions. For example, better linking already existing actions to one's values can increase well being, without having to do more actions or different actions.	Edited in response to this comment
Valued behaviour change would be better - it's not change for change sake. Also, not sure this item would have much ACT specificity compared to CBI etc.	Added 'values based behaviour change'
behaviour change towards valued activities	
Maybe expliciting that behavior change in direction to values	
For most therapies yes, but sometimes its acceptance and not an actual behavioural change	Edited to reflect this comment

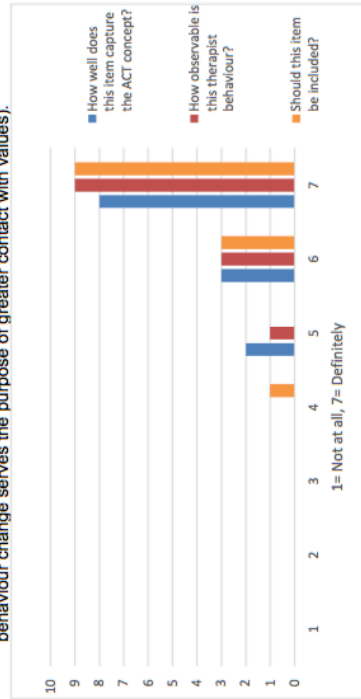
2. Therapist encourages the client to clarify their values (overarching desires and qualities of action).



(Should this item be included total score= 87, mean score=6.69)

Your comments	Our response
I suggest using the term overarching goal instead of desire	Edited
I'd take out the word desires. overarching life goals and qualities of action is good	Edited
maybe "gives the client opportunities to...? to capture more implicit ways of coming at this? e.g., "And if all of that effort you put into work could really matter for something, what purpose would you want it to have? What meaning?"	
Therapist works with client to elicit and / or clarify their values (overarching desires and qualities of action)	

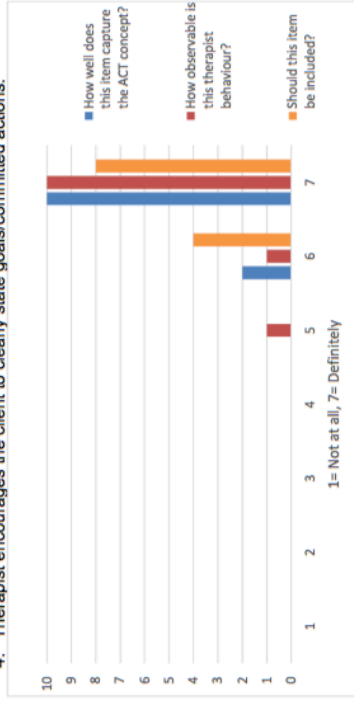
3. Therapist links behaviour change to client's personal values (i.e. emphasises that behaviour change serves the purpose of greater contact with values).



(Should this item be included total score= 85, mean score=6.54)

Your comments	Our response
"...behaviour change can serve..."	Edited
Good	
I would say that the aim of ACT is directly to increase valued behaviors, so I don't get the distinction between behaviour change and personal values	
Therapist enables client to see link between behaviour change and client's personal values (e.g. emphasises that behaviour change serves the purpose of greater contact with values).	Edited

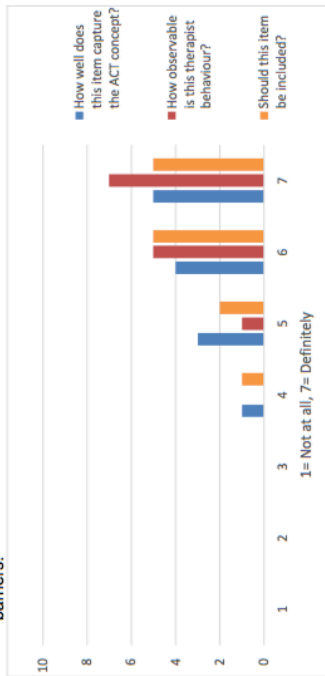
4. Therapist encourages the client to clarify state goals/committed actions.



(Should this item be included total score= 80, mean score=6.67)

Your comments	Our response
Within reason - so long as the therapist doesn't badger the client (some are very reluctant to specify goals/values early on).	Edited to 'give the client opportunity to'
"... add "in pursuit of values" to the end?"	edited
"I'd like this to reflect flexibility a bit more. To me, we want folks to generate lots of ideas for action, then make a choice. Maybe something like "to generate possibilities for action that fit with their values and the situation as it is" then "to identify potential barriers that are likely to dissuade them from action in service of values"	This would be captured in the 'degree' part of the rating scale if appropriate for the client.

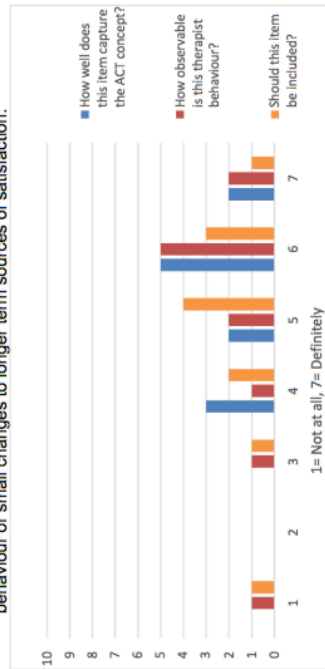
5. Therapist facilitates identification of specific actions in response to predictable barriers.



(Should this item be included total score= 79, mean score= 6.08)

Your comments	Our response
This feels a bit CBT	Edited as below
I think it could be useful to have another item that suggests that the therapist raises awareness of the likelihood of barriers and uses that to again highlight the pattern of unworkable responses	Edited to this
I don't know about this one without the other items I mention above. I worry that it emphasizes problem solving in a way that isn't present moment focused. Maybe something like "facilitates the identification of different valued actions they might take in the presence of potential barriers"	Added as new item

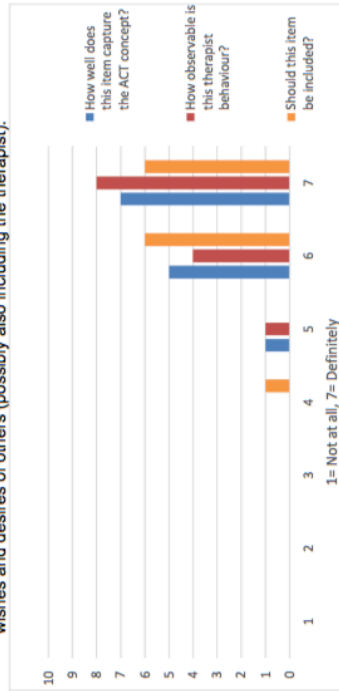
6. Therapist uses hierarchical or part-whole framing to connect short term patterns of behaviour or small changes to longer term sources of satisfaction.



(Should this item be included total score= 57, mean score=4.75)

Your comments	Our response
The language used is a bit technical and the meaning may not be clear to all. This should be revised - perhaps the augmenting item from the last section (about perspective changing) would be better here?	Item deleted. Low score. New suggested items capture this better
I think this item needs tweaking if any hope of consistency across raters is needed...	-
"satisfaction" seems quite positively loaded. I would reword this as "longer term patterns of engaged behaviour"	Therapist draws client's attention to previous or ongoing examples of committed action which client has not seen in those terms
I'm not sure that I really understand this question	-
The item is not clear. Do you mean that therapist connect short-term committed action to values?	-
These aren't the only framings involved in this kind of behaviour - conditional framing, temporal deictic framing taking, sometimes oppositional framing	-
I'm not sure how well the way this is worded lends itself to scoring, though I'm not sure I can think of a straightforward rewording.	Therapist explores distinction between short-term and long-term consequences of behaviours
again, is it that the therapist does this, or that we want to give the client the opportunity to do this? Seems odd to snit focus when we get to RFT items. why not something like "gives client the opportunity to use..."	-

7. Therapist helps the client discriminate personal values from social pressures and the wishes and desires of others (possibly also including the therapist).



(Should this item be included total score= 82, mean score=6.31)

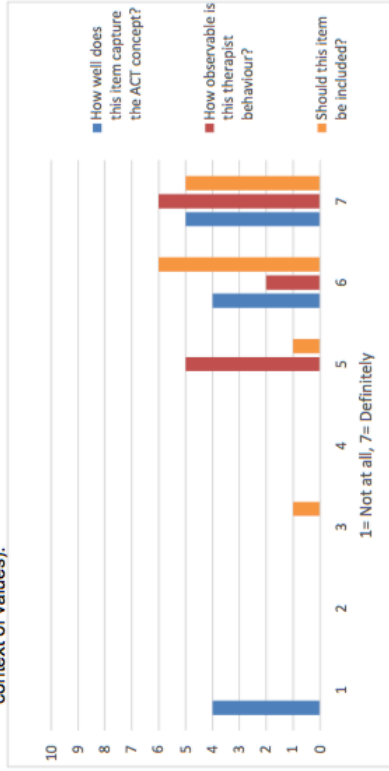
Your comments	Our response
Good item	-
It's OK but might be not applicable in many cases. maybe including "norms" or synonym - some folks are crazy isolated from acute social pressure, but still feel the pressure of social norms e.g., should	Manual edited to reflect this Edited

New items you suggested for this section	Our response
The therapist encourages client to differentiate positive from negative reinforcement in identifying values	Added
Therapist explored distinction between short-term and long-term consequences of behaviours	Added
"Therapist draws client's attention to previous or ongoing examples of committed action which client has not seen in those terms"	Added

Your comments on this section	Our response
Not all items may be necessary	We are aiming to cut down to 3 items per section.

Engaged response style - ACT inconsistent

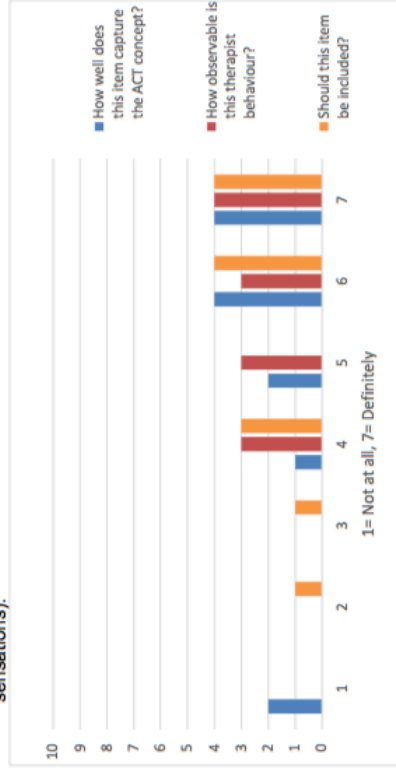
1. Therapist encourages activity for "activity's sake" (i.e. emphasis on activity out of the context of values).



(Should this item be included total score= 79, mean score=6.08)

Your comments	Our response
No comments	

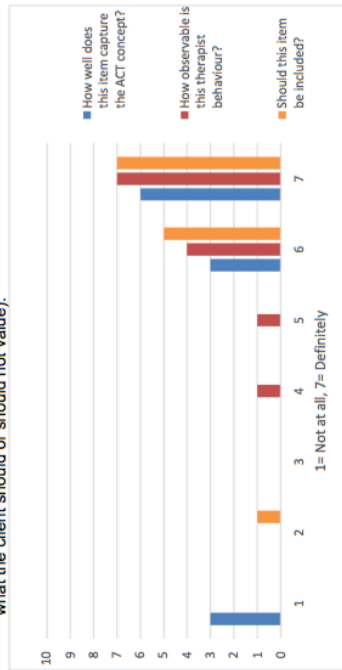
2. Therapist uses actions (even when this is in line with values) as a means for changing thoughts or feelings (to reduce or control unwanted thoughts, emotions and sensations).



(Should this item be included total score= 69, mean score=5.31)

Your comments	Our response
Not sure this item makes sense - needs rephrasing.	Item deleted.
Not sure how to respond to this one. A therapist should not do this, so this is what I mean.	Low score and confusing item.
Again, I have a slight problem with this, e.g. if someone has a value of "being someone who looks after themselves", then the committed action "put aside time every day for relaxation" could be perceived as a way of trying to reduce unwanted sensations (e.g. tension). Ultimately, I think the problem is that "changing thoughts or feelings" isn't equivalent to "reduce or control".	

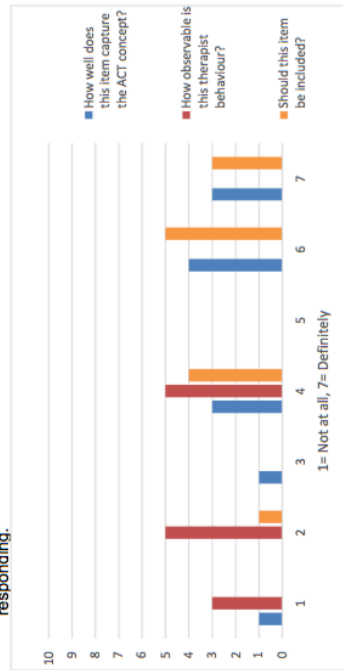
3. Therapist imposes their own, other's or society's values upon the client (i.e. suggests what the client should or should not value).



(Should this item be included total score= 81, mean score=6.23)

Your comments	Our response
Good item but potential problems in a forensic context (the clients values may differ to that of society/legal framework)	Added
Again, this is related to an ACT concept, but the therapist should not do this.	The items in the inconsistent sections are all behaviours that are inconsistent with ACT concepts
maybe add "or what valuing something should look like"	Added

4. Therapist ignores psychological experiences and coordinates a "just do it" type of responding.



(Should this item be included total score= 69, mean score=5.31)

Your comments	Our response
Tricky - in many ways, ACT is guilty of this too (albeit via a circuitous route)	We have tried to make this clearer by adding i.e. encourages action without first hearing or exploring, showing curiosity regarding the client's psychological experiences (e.g. painful thoughts feelings and emotions) when undertaking new activities
ibid	
Without an example, I'm not entirely sure I understand what this question is driving at.	
Not sure what this means exactly.	

New items you suggested for this section	Our response
Therapist ignore clear impracticalities in proposed plans (e.g. clearly excessive goals)	Added

Your comments on this section	Our response
Item 63 may be functional in a certain phase of the treatment. Some functions of therapist behaviour may be hard to determine.	See main comments

Your comments on this round in general	Our response
Though some items point at workability, in general I dont think there is enough of this. Tied to that, my responding throughout has been about trying to ensure that the items are well underpinned by functional analysis. Also its interesting that the RFT based items tended to come in regarding engagement, (maybe a couple in the centered section too?) they could also come in to the delusion and acceptance stance too.	See main comments section
OK, this may be a difference in therapeutic style: I want people learning ACT to be thinking clearly in ABC (short)(long) terms all the way through. I wonder whether, with these initial questions, a person could be rated as very competent without fully manifesting the functional contextual approach?	See main comments section
Love this. So glad to help.	

Plumb, J. C., & Villardaga, R. (2010). Assessing treatment integrity in acceptance and commitment therapy: Strategies and suggestions. *International Journal of Behavioral Consultation and Therapy*, 6(3), 263.
 Waitz, J., Addis, M. E., Koerner, K., & Jacobson, N. S. (1993). Testing the integrity of a psychotherapy protocol: Assessment of adherence and competence. *Journal of Consulting and Clinical Psychology*, 61, 620-630.

C.3 Second draft of ACT-FM for rating and feedback

The ACT Fidelity Scale (ACT-FS)

This scale is intended to be used by clinicians who are experienced in ACT and understand the principles of the approach. It can be used to rate clinician fidelity to ACT in a variety of contexts (e.g. as a tool to evaluate your own or another clinician's performance, or as a research tool). Before scoring the session, familiarize yourself with the scale and the items within it so that you can easily find an item when you see the clinician evidence it during the session.

- As you listen to or view the session you may find it helpful to make notes in the space next to each item to aide your memory.
- Do not score the items until the end of the session.
- Only score based on behaviours you have observed, not what you think the clinician would have achieved if they had been given longer. Therapists may not have the opportunity to demonstrate all behaviours captured by the ACT-FS, especially in short sessions.
- Raters should have specific examples in mind when scoring. These can be noted in the comments space for each item.
- The therapist's behaviour should be scored irrespective of how the client responded to these behaviours.

The items capture four key areas within ACT: Therapist Stance, Open Response Style, Centred Response Style and Engaged Response Style. These are outlined below with definitions. In the scale, there are items to score the therapist's behaviours as consistent and inconsistent with these areas. This is because it is possible to be both ACT consistent and inconsistent within the same therapy session; which may prove useful to record for research or training purposes. However, if rating the inconsistent items is not relevant for your purposes, then please feel free to omit these domains.

Therapist Stance

The stance taken by the therapist is equal, non-coercive, and non-judgemental. The therapist should show interest, empathy and warmth. The therapist does not try to change the client's mind - rather to direct them to their own experience - to guide noticing. The therapist seeks to help the client broaden their behavioural repertoire, link their behaviours with relevant consequences, and allow their experiences to shape more effective actions.

Open Response Style

When encouraging an open response style, the therapist is teaching skills that support the client's openness to have experiences – both positive and negative. They might work on skills that promote the client's willingness to sit with difficult thoughts, emotions or sensations, when in the service of their values and goals. They might use defusion techniques or exercises with the client, giving them the opportunity to notice or distance themselves from their thoughts. Openness is the ability to open-up to experiences, and to notice these without becoming entangled in them, or trying to diminish them.

Centred Response Style

A centred response style is the ability to flexibly contact the present moment. This might involve practicing exercises designed to enhance the client's ability to non-judgementally attend to the present moment. When doing so helps increase the effectiveness of client behaviour, the therapist may encourage the client to take an observer or another alternative perspective on their psychological experiences; or to shift flexibly between different perspectives (person, place and time).

Engaged Response Style

An engaged response style involves identifying, clarifying and following one's values on an ongoing basis. This means choosing to act according to these values, and choosing this consistently as a commitment made and kept. When increasing an engaged response style the therapist gives the client opportunities to identify their values and to define goals and actions

that move the client's behaviours towards personally important ongoing qualities, and then to plan and do these actions.

Scoring

Give a rating for each item based on the clinician's behaviours you have observed. Items are rated as 0 if the behaviour did not occur, and from 1-3 if the behaviour did occur. Higher scores are given for the behaviour occurring more consistently. The rater will need to use their clinical judgment when scoring and should bear the context of the therapy session in mind and consider the function of the therapist behaviour.

A total score for each area can be calculated by adding the three items together. The consistent items can be added to give a total ACT consistency score and the inconsistent items can be added to give a total ACT inconsistency score.

Ratings are from 0 to 3 where:

A rating of: Would indicate:

0	This behaviour never occurred	
1	This behaviour occurred	Therapist rarely enacts this behaviour
2	This behaviour occurred	Therapist sometimes enacts this behaviour
3	This behaviour occurred	Therapist consistently enacts this behaviour

The starting point for each area is 0. Only assign a score higher than 0 if the rater hears examples of the behaviour specified in the items. Please only give whole point answers, e.g. do not score 2.5.

ACT Consistent Stance = score out of 9

ACT Consistent Open Response Style = score out of 9

ACT Consistent Centred Response Style = score out of 9

ACT Consistent Engaged Response Style = score out of 9

ACT Consistency = score out of 36

ACT Inconsistent Stance = score out of 9

ACT Inconsistent Open Response Style = score out of 9

ACT Inconsistent Centred Response Style = score out of 9

ACT Inconsistent Engaged Response Style = score out of 9

ACT Inconsistency = score out of 36

Therapist stance – ACT consistent

1. Therapist states or demonstrates a posture of equality (e.g. "we both struggle" or "we all struggle"; or shares a personal example that is contextually relevant)
2. Therapist demonstrates interest in the client's situation and psychological experiences.
3. Therapist highlights psychologically flexible responses on the part of the client (i.e. open/centred/ actively aligned with goals and values).

Suggested items:

4. Therapist conveys that it is natural to experience painful or difficult thoughts and feelings when one is in circumstances such as those experienced by the client.
5. Therapist demonstrates a willingness to sit with the client's painful thoughts and feelings and the situations that give rise to these.
6. Therapist helps the client to notice the array of behavioural choices that they have in a given situation.
7. Therapist acknowledges that the client makes his or her own choices.
Therapist's behaviour is warm, empathic and encouraging
8. Therapist shows awareness of client's responses to the therapist's behaviour and consequently adjusts their own behaviour accordingly.

9. Therapist gives the client opportunities to notice the effectiveness of his or her behaviours in relation to their own goals or values (i.e. whether behaviours help/helped them to achieve results consistent with their values.)
10. Therapist gives the client opportunities to notice the consequences of their behaviours.
11. Therapist uses experiential methods (e.g. exercises and metaphors) that are sensitive to the situation.
12. Therapist admits mistakes, weaknesses, and limits of knowledge.

Therapist stance – ACT inconsistent

1. Therapist lectures the client (e.g. gives prolonged advice and/or explanations)
2. Therapist uses coercion (i.e. attempts to coordinate new behaviours simply via their consistency with the therapist’s verbal direction.)
3. Therapist rushes to reassure, diminish or move on from “unpleasant” or “difficult” thoughts and feelings when these arise.
4. Therapist conveys sense-making or literal understanding (i.e. aligning beliefs with an objective reality) as a primary goal of therapy.

Suggested items:

5. Therapist methods/clinical conversations are at a conceptual level (i.e. therapist emphasises verbal understanding of concepts rather than experiential methods and behaviour change.)
6. Therapist takes the role of expert regarding the client’s own experiences and circumstances.

Open response style – ACT consistent

1. Therapist encourages the client to adopt an open and accepting stance towards thoughts, feelings and bodily sensations.
2. Therapist facilitates the observing/describing of thoughts and feelings on the part of the client.
3. Therapist models the observing/describing of thoughts and feelings in their own experience.
4. Therapist helps the client to notice thoughts as separate experiences from the events they describe.

Suggested items:

5. Therapist gives the client opportunities to notice how they interact with their mind (e.g. when they are struggling with thoughts and feelings, or are allowing thoughts and feelings to be there.)
6. Therapist guides the client to notice that psychological experiences alone do not have the capacity to cause actions.
7. Therapist helps the client to observe / describe their thoughts, feelings and bodily sensations.
8. Therapist gives the client opportunities to take a non-judgemental stance towards their thoughts and feelings.
9. Therapist encourages the client to “stay with” painful thoughts, feelings and emotions, in the service of their values.
10. Therapist gives the client opportunities to move towards or deeper into experiences they have previously avoided.
11. Therapist gives the client opportunities to replace avoidant behaviours with any variety of other behaviours that are not avoidant in quality while in the same situation.

Open response style – ACT inconsistent

1. Therapist encourages the client to control or to diminish distress (or other emotions) as the primary goal of therapy.
2. Therapist encourages the client to “think positive” or to substitute negative for positive thoughts as a treatment goal.
3. Therapist facilitates detailed discussion of whether client’s thoughts are aligned with an objective external truth (i.e. seeking essential coherence as opposed to functional coherence.)

New items suggested:

4. Therapist encourages or reinforces the view that fusion or avoidance are implicitly bad, rather than judging them on basis of workability.
5. Therapist rushes to reassure, diminish or move on from “unpleasant” or “difficult” thoughts and feelings when these arise.

6. Therapist conveys sense-making or literal understanding (i.e. aligning beliefs with an objective reality) as a primary goal of therapy.

Centred response style - ACT consistent

1. Therapist directs the client's attention to the thoughts, feelings and bodily sensations that are present now.
2. Therapist uses present-moment-focus exercises (e.g. mindfulness exercises) to increase awareness of the moment including thoughts and feelings.
3. Therapist helps the client to notice the self as distinct from the thoughts and feelings occurring in the moment (e.g. guides the client to take an observer perspective on psychological experiences.)
4. Therapist helps the client to notice the stimuli (thoughts, feelings, situations) that hook them away from the present moment
5. Therapist gives the client opportunities to shift to a different perspective (for example, an older or younger self, the observing-self, or another person)
6. Therapist encourages the client to notice when they are attaching labels / evaluations / stories to themselves (e.g. conceptualised self).
7. Therapist helps the client to notice choices over their actions in the presence of whatever psychological experiences (thoughts and feelings) are present.

New items suggested:

8. Therapist helps the client to track when they move away from being in the present moment
9. Therapist directs the client to notice the thoughts and feelings that arise in a certain context or situation.
10. Therapist helps the client to experience that they are bigger than or contain their psychological experiences.

Centred response style - ACT inconsistent

1. Therapist introduces or uses mindfulness and/or self-as-context exercises as methods to control or diminish unwanted thoughts, emotions and bodily sensations.
2. Therapist introduces or uses mindfulness and/or self-as-context exercises to challenge the accuracy of beliefs or thoughts.

New items suggested:

3. Therapist reinforces client behaviours where mindfulness and/or self-as-context methods are used as means to control, diminish or distract from unwanted thoughts and feelings.
4. Therapist encourages perspective taking as a moral imperative or social rule.
5. Therapist introduces mindfulness or self-as-context exercises as formulaic exercises.
6. Therapist addresses self as a matter of belief or "knowing in the mind".

Engaged response style - ACT consistent

1. Therapist emphasises that changing behaviour to enable greater consistency with values is a focus of therapy.
2. Therapist gives the client opportunities to clarify their values (overarching life goals and qualities of action).
3. Therapist helps the client to link their behaviour change to their personal values (i.e. therapist emphasises that behaviour change can serve the purpose of greater contact with values).
4. Therapist gives the client opportunities to clearly state goals/committed actions in pursuit of values.
5. Therapist directs the client to notice barriers to values-based actions and helps the client notice patterns of workable/unworkable responses.
6. Therapist helps the client to discriminate personal values from social pressures/social norms and the wishes and desires of others (possibly also including the therapist).

New items suggested:

7. Therapist encourages client to differentiate positive from negative reinforcement in identifying values.
8. Therapist explores distinction between short-term and long-term consequences of behaviours.
9. Therapist draws client's attention to previous or ongoing examples of committed action which client has not seen in those terms.

10. Therapist helps the client to identify different values-based actions they might take in the presence of potential barriers.
11. Therapist helps the client to see the connection between consequences experienced or available and their stated values.
12. Therapist helps the client to make plans and set goals likely to meet reinforcing consequences or otherwise shape effective action.

Engaged response style - ACT inconsistent

1. Therapist encourages activity for “activity’s sake” (i.e. emphasis on increasing activity out of the context of values).
2. Therapist imposes their own, other’s or society’s values upon the client (i.e. suggests what the client should or should not value or what valuing something should look like).
3. Therapist coordinates a “just do it” type of responding; i.e. encourages action without first hearing or exploring, showing curiosity regarding the client’s psychological experiences (e.g. painful thoughts feelings and emotions) when undertaking new activities.

New items suggested:

4. Therapist encourages the client’s proposed plans even when there are clear impracticalities (e.g. clearly excessive goals).
5. Therapist encourages goal-directed activity that is not in the context of values (i.e. behaviour is about achieving a particular goal, which is not explored in the context of values).

C.4 Screenshots of round 2 BOS

The items capture four key areas within ACT: Therapist Stance, Open Response Style, Centred Response Style and Engaged Response Style. These are outlined below with definitions. In the scale, there are items to score the therapist's behaviours as consistent and inconsistent with these areas. This is because it is possible to be both ACT consistent and inconsistent within the same therapy session; which may prove useful to record for research or training purposes. However, if rating the inconsistent items is not relevant for your purposes, then please feel free to omit these domains.

Therapist Stance

The stance taken by the therapist is equal, non-coercive, and non-judgemental. The therapist should show interest, empathy and warmth. The therapist does not try to change the client's mind - rather to direct them to their own experience - to guide noticing. The therapist seeks to help the client broaden their behavioural repertoire, link their behaviours with relevant consequences, and allow their experiences to shape more effective actions.

Open Response Style

When encouraging an open response style, the therapist is teaching skills that support the client's openness to have experiences – both positive and negative. They might work on skills that promote the client's willingness to sit with difficult thoughts, emotions or sensations, when in the service of their values and goals. They might use defusion techniques or exercises with the client, giving them the opportunity to notice or distance themselves from their thoughts. Openness is the ability to open-up to experiences, and to notice these without becoming entangled in them, or trying to diminish them.

Centred Response Style

A centred response style is the ability to flexibly contact the present moment. This might involve practicing exercises designed to enhance the client's ability to non-judgementally attend to the present moment. When doing so helps increase the effectiveness of client behaviour, the therapist may encourage the client to take an observer or another alternative perspective on their psychological experiences; or to shift flexibly between different perspectives (person, place and time).

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Creating an ACT fidelity measure - A delphi study (Round 2)

Page 1: The manual

Thank you for your comments and suggestions on the manual in round 1. We have listened to these and have edited the manual as necessary. Here is the revised version of the manual, please leave any comments below.

The ACT Fidelity Scale (ACT-FS)

This scale is intended to be used by clinicians who are experienced in ACT and understand the principles of the approach. It can be used to rate clinician fidelity to ACT in a variety of contexts (e.g. as a tool to evaluate your own or another clinician's performance, or as a research tool). Before scoring the session, familiarize yourself with the scale and the items within it so that you can easily find an item when you see the clinician evidence it during the session.

- As you listen to or view the session you may find it helpful to make notes in the space next to each item to aide your memory.
- Do not score the items until the end of the session.
- Only score based on behaviours you have observed, not what you think the clinician would have achieved if they had been given longer. Therapists may not have the opportunity to demonstrate all behaviours captured by the ACT-FS, especially in short sessions.
- Raters should have specific examples in mind when scoring. These can be noted in the comments space for each item.
- The therapist's behaviour should be scored irrespective of how the client responded to these behaviours.

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Engaged Response Style

An engaged response style involves identifying, clarifying and following one's values on an ongoing basis. This means choosing to act according to these values, and choosing this consistently as a commitment made and kept. When increasing an engaged response style the therapist gives the client opportunities to identify their values and to define goals and actions that move the client's behaviours towards personally important ongoing qualities, and then to plan and do these actions.

Scoring

Give a rating for each item based on the clinician's behaviours you have observed. Items are rated as 0 if the behaviour did not occur, and from 1-3 if the behaviour did occur. Higher scores are given for the behaviour occurring more consistently. The rater will need to use their clinical judgment when scoring and should bear the context of the therapy session in mind and consider the function of the therapist behaviour.

A total score for each area can be calculated by adding the three items together. The consistent items can be added to give a total ACT consistency score and the inconsistent items can be added to give a total ACT inconsistency score.

Ratings are from 0 to 3 where:

A rating of: **Would indicate:**

0 This behaviour never occurred

1 This behaviour occurred Therapist rarely enacts this behaviour

3 / 19

A rating of: **Would indicate:**

2 This behaviour occurred Therapist sometimes enacts this behaviour

3 This behaviour occurred Therapist consistently enacts this behaviour

The starting point for each area is 0. Only assign a score higher than 0 if the rater hears examples of the behaviour specified in the items. Please only give whole point answers, e.g. do not score 2.5.

ACT Consistent Stance = score out of 9

ACT Consistent Open Response Style = score out of 9

ACT Consistent Centred Response Style = score out of 9

ACT Consistent Engaged Response Style = score out of 9

ACT Consistency = score out of 36

ACT Inconsistent Stance = score out of 9

ACT Inconsistent Open Response Style = score out of 9

ACT Inconsistent Centred Response Style = score out of 9

ACT Inconsistent Engaged Response Style = score out of 9

ACT Inconsistency = score out of 36

Please leave any comments or suggestions on the manual here:

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Page 2: Revised items

The items have been deleted, edited or added in response to the comments and ratings from round 1. Below is the revised list of items for each section. Please rate how much you think each item should be included in the final measure and leave any comments. Three items in each section will be selected for the final measure. Your ratings will be taken into account to select these.

The aim of this round is to choose a small set of final items from a larger pool of possible items. If you are unsure about an item, please feel free to give it a low rating as this will help us to distinguish popular items from unpopular items.

Therapist Stance - ACT Consistent items

	1 Definitely do not include - Definitely do include 7						
	1	2	3	4	5	6	7
1. Therapist states or demonstrates a posture of equality (e.g. "we both struggle" or "we all struggle"; or shares a personal example that is contextually relevant).	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
2. Therapist demonstrates interest in the client's situation and psychological experiences.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
3. Therapist highlights psychologically flexible responses on the part of the client (i.e. open/centred/ actively aligned with goals and values).	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
4. Therapist conveys that it is natural to experience painful or difficult thoughts and feelings when one is in circumstances such as those experienced by the client.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
5. Therapist demonstrates a willingness to sit with the client's painful thoughts and feelings and the situations that give rise to these.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

6. Therapist helps the client to notice the array of behavioural choices that they have in a given situation.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
7. Therapist acknowledges that the client makes his or her own choices.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
8. Therapist's behaviour is warm, empathic and encouraging	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
9. Therapist shows awareness of client's responses to the therapist's behaviour and consequently adjusts their own behaviour accordingly.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
10. Therapist gives the client opportunities to notice the effectiveness of his or her behaviours in relation to their own goals or values (i.e. whether behaviours help/helped them to achieve results consistent with their values).	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
11. Therapist gives the client opportunities to notice the consequences of their behaviours.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
12. Therapist uses experiential methods (e.g. exercises and metaphors) that are sensitive to the situation.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
13. Therapist admits mistakes, weaknesses, and limits of knowledge.	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Any comments on Therapist Stance - ACT Consistent items?

NOTE: this last section was repeated for each of the other 7 areas in the measure (Therapist stance inconsistent items, Open Response consistent items, Open Response inconsistent items, Aware response style consistent items, Aware Response inconsistent items, Engaged response style consistent items, Engaged response inconsistent items). These pages have not been reproduced here due to their length and repetitiveness.

Page 3: Demographics

Thank you for taking part in this second round of the Delphi. If you do not mind, please leave your demographic information below. This will only be used to describe the whole sample of participants and will not be used to describe individuals.

Please state your gender

How many years experience do you have working with ACT?

Are you recognised by the Associated of Contextual Behavioural Science as a Peer Reviewed ACT Trainer?

- Yes
- No

How do you mostly work?

- Mainly clinical work
- Mainly research work
- Clinical and research work equally

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Would you like to be acknowledged as a contributor to the Delphi study in publications? Your name would be published but it would not be linked to any of your individual comments or ratings of the items. * Required

- Yes
- No

If yes, please state your name as you would like it to appear: * Required

Page 4: Thank you

Once we have collated the information and edited the items again, we will send around a final version of the ACT-FS for any final comments you may have.

Thank you again for your participation, it is very much appreciated.

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Appendix D. Delphi round 3 materials

D.1 Recruitment invitation email for third round

Dear ...,

Thank you for contributing towards this Delphi study so far. We are hugely grateful for your time and the thought that you have put into this, it is a real testament to the generosity and spirit of the ACT community. Your input has been very much appreciated and we are delighted to present a draft of the ACT-FM.

As a result of the analysis of round 2 we have further refined the manual and selected 3 items from each area to form the measure. Our final invitation to you is to ask for feedback regarding the attached measure.

Please follow this link to the final short questionnaire which will provide a structure for your feedback. Please do complete this even if you have no comments or suggestions for the measure, you can simply state that you have no suggestions.

<https://leeds.onlinesurveys.ac.uk/creating-an-act-fidelity-measure-a-delphi-study-round-3>

We have also attached a summary of responses from round 2. You will find the scores for each item and anonymised comments from the panel. You will be able to see how we have selected the final items for each section of the ACT-FM.

Whilst all the information that you provide is anonymized, we are offering the opportunity to be acknowledged as a Delphi panelist in the write up of this research. Your name would be published as an acknowledgment but it will not be linked to any of your individual responses. There was an option to state your preference for this at the end of the round 2 questionnaire. If you responded you do not need to respond again. If you did not take part in round two and would like to be acknowledged then please let me know either in this final questionnaire, or by email. If I have not heard from you by the 9th of February then I will assume that you wish to remain anonymous.

We are asking for comments on the finalised measure by **Friday the 9th of February**. After this, the ACT-FM will be further developed in response to your comments and a small pilot of its usability with a group of clinicians. We will send you the final version along with a summary of comments from this final round. Please do not use the attached version of the ACT-FM as the next steps will ensure it is the most useful version it can be and we would like a consistent final version in circulation.

Many thanks,
Lucy

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D.2 Summary of round 2 responses, sent as attachment

Delphi round 2 summary

Demographics

10 participants
 Male= 7, female= 3
 Recognized by ACBS= 5 (50%)
 Years' experience using ACT= 4-13 (mean= 10.7, SD= 2.87)
 Mainly clinical work= 4, Mainly research work= 5, Clinical and research work equally= 1

Comments on the manual

Manual comments	Our decision
1. Good - one or two typos in main text.	Edited
2. I wonder if descriptions of ACT-inconsistent stance/response style might be useful.	We have added these in
3. Generally this is well-written and helpful: I really like it. However, I do still wonder if someone coming to this completely "cold" might be a little confused at first by the idea of scoring both consistency and inconsistency. To that end, might I suggest giving examples of e.g. one consistent and one inconsistent item in the manual text? I think this would address this small but important query.	We have added these in
4. The manual seems very clear to me. I understand that clients' responses should not be taken in consideration, as a therapist cannot know beforehand if the intervention will work. However, if clients consistently resist the interventions, keep avoiding or don't get them at an experiential level, this would be meaningful.	Hopefully the rater would bear this in mind when considering the context of the therapist behaviour. Edited
5. This is clear. A small thing, but in the final paragraph the text could be amended to: 'The ACT consistent items can be added to give a total ACT consistency score and the ACT inconsistent items can be added to give a total ACT inconsistency score	Edited. We agree, but this will always be a limitation of an ACT fidelity measure.
6. Sounds good. There is one typo above 'the clients'. In terms of conceptually, I guess what would worry me about this measure is that a clinician might tick all of the boxes on the questionnaires by offering exercises that cover the relevant bases. But in doing so they might not be responding to what is in the room. This is the difference between adhering to a protocol and adhering to a process driven act intervention. I guess these are questions for research but my point is that I wonder whether someone who dances around the hexaflex relative to what is in front of them in the room would score well on this measure. I am sure that you know better than I!	

Ratings for the items and comments

Scores for each item have been calculated. For the purposes of our study, consensus is defined at 80% of participants rating an item as a 6 or 7. The items within each section have been ordered within the table. Where two items achieved the same percentage agreement, they have been ordered by mean score. The items shaded in green have been selected for the final measure. These are usually the three highest rated items, unless these items did not give a good breath of coverage. The Hexaflex area has been identified in the left hand column for the Triflex areas, to ensure coverage of ACT concepts.

Therapist Stance - ACT Consistent Items	Percentage scoring as 6 or 7	MEAN (SD)
5. Therapist demonstrates a willingness to sit with the client's painful thoughts and feelings and the situations that give rise to these.	90	6.8 (0.63)
4. Therapist conveys that it is natural to experience painful or difficult thoughts and feelings when one is in circumstances such as those experienced by the client.	90	6.4 (0.97)
3. Therapist highlights psychologically flexible responses on the part of the client (i.e. open/ centred/ actively aligned with goals and values).	80	6.1 (1.20)
(covered by other items in the measure)		
12. Therapist uses experiential methods (e.g. exercises and metaphors) that are sensitive to the situation.	70	6.4 (1.07)
1. Therapist states or demonstrates a posture of equality (e.g. "we both struggle" or "we all struggle"; or shares a personal example that is contextually relevant).	70	6.3 (0.95)
13. Therapist admits mistakes, weaknesses, and limits of knowledge.	70	6.1 (1.29)
11. Therapist gives the client opportunities to notice the consequences of their behaviours.	70	5.6 (1.71)
6. Therapist helps the client to notice the array of behavioural choices that they have in a given situation	70	5.8 (1.14)
8. Therapist's behaviour is warm, empathic and encouraging	60	5.8 (1.4)
10. Therapist gives the client opportunities to notice the effectiveness of his or her behaviours in relation to their own goals or values (i.e. whether behaviours helped/helped them to achieve results consistent with their values).	50	6.2 (1.14)
2. Therapist demonstrates interest in the client's situation and psychological experiences.	50	5.5 (1.35)
9. Therapist shows awareness of client's responses to the therapist's behaviour and consequently adjusts their own behaviour accordingly.	50	5.3 (1.49)
7. Therapist acknowledges that the client makes his or her own choices.	40	5.5 (1.18)

Therapist Stance - ACT Consistent Items - Comments

- Only problem is with item 9; principle is good, just not sure about how clearly observable it will be when observer rating

- All of these feel act consistent, but there might be crossover to the other domains in the questionnaire. If you wanted to cut these down you might consider asking people to rank their top 4.

Therapist Stance - ACT Consistent items - Decisions

- Item 12 chosen over item 3 as 3 is covered by other items in the measure.

Therapist Stance - ACT Inconsistent items	Percentage scoring as 6 or 7	MEAN (SD)
3. Therapist rushes to reassure, diminish or move on from "unpleasant" or "difficult" thoughts and feelings when these arise.	100	6 (1.83)
5. Therapist methods/clinical conversations are at a conceptual level (i.e. therapist emphasises verbal understanding of concepts rather than experiential methods and behaviour change).	89	6 (1.89)
1. Therapist lectures the client (e.g. gives prolonged advice and/or explanations).	78	5.8 (1.87)
2. Therapist uses coercion (i.e. attempts to coordinate new behaviours simply via their consistency with the therapist's verbal direction).	78	5.7 (1.83)
6. Therapist takes the role of expert regarding the client's own experiences and circumstances.	67	5.6 (1.84)
4. Therapist conveys sense-making or literal understanding (i.e. aligning beliefs with an objective reality) as a primary goal of therapy.	44	5 (1.94)

Therapist Stance - ACT Inconsistent items - Comments

- If therapist would do these items hesitantly and occasionally, it would not be a problem. But with consistency and firmly, they are definitely ACT inconsistent to me.
- These are all good

Therapist Stance - ACT Inconsistent items - Decisions

- Highest scoring 3 items chosen

Hexaflex area	Open Response Style - ACT Consistent items	Percentage scoring as 6 or 7	MEAN (SD)
Defusion	5. Therapist gives the client opportunities to notice how they interact with their mind (e.g. when they are struggling with thoughts and feelings, or are allowing thoughts and feelings to be there).	100	6.8 (0.42)
Defusion	4. Therapist helps the client to notice thoughts as separate experiences from the events they describe.	100	6.7 (0.48)
Acceptance	9. Therapist encourages the client to "stay with" painful thoughts, feelings and emotions, in the service of their values.	100	6.7 (0.48)
Acceptance	1. Therapist encourages the client to adopt an open and accepting stance towards thoughts, feelings and bodily sensations.	90	6.7 (0.67)
Acceptance	10. Therapist gives the client opportunities to move towards or deeper into experiences they have previously avoided.	90	6.6 (0.70)
Acceptance	7. Therapist helps the client to observe / describe their	90	6.4

Defusion	thoughts, feelings and bodily sensations.	(0.70)
Defusion	6. Therapist guides the client to notice that psychological experiences alone do not have the capacity to cause actions.	6.2 (0.92)
Acceptance /defusion	8. Therapist gives the client opportunities to take a non-judgemental stance towards their thoughts and feelings.	6.2 (1.03)
Acceptance	11. Therapist gives the client opportunities to replace avoidant behaviours with any variety of other behaviours that are not avoidant in quality while in the same situation.	5.8 (1.23)
Acceptance /defusion	3. Therapist models the observing/describing of thoughts and feelings in their own experience.	5.8 (1.03)
Acceptance /defusion	2. Therapist facilitates the observing/describing of thoughts and feelings on the part of the client.	5.7 (1.57)

Open Response Style - ACT Consistent items - Comments

- Please, revise item 5. It was difficult to understand for me at the first time
- "Therapist guides the client to notice that psychological experiences alone do not have the capacity to cause actions." - seems a little brute force. Could be something like "notice the range of actions available even in the face of intense psychological experiences"
- 2 and 7 are good questions, the only one needed. They could equally sit in Centred (overtly about awareness, tho it's function is probably to shape an Open response)

Open Response Style - ACT Consistent items - Decisions

- Highest scoring 3 items chosen
- We have edited item 5 to make it clearer: "Therapist gives the client opportunities to notice how they interact with the content of their thoughts or feelings (e.g. whether avoidant or open)."

Hexaflex area	Open Response Style - ACT Inconsistent items	Percentage scoring as 6 or 7	MEAN (SD)
Defusion	2. Therapist encourages the client to "think positive" or to substitute negative for positive thoughts as a treatment goal.	100	6.3 (1.89)
Acceptance	1. Therapist encourages the client to control or to diminish distress (or other emotions) as the primary goal of therapy.	100	6.2 (1.55)
Defusion	4. Therapist encourages or reinforces the view that fusion or avoidance are implicitly bad, rather than judging them on basis of workability.	89	6.1 (1.91)
Acceptance	5. Therapist rushes to reassure, diminish or move on from "unpleasant" or "difficult" thoughts and feelings when these arise.	78	5.9 (1.91)
Defusion	3. Therapist facilitates detailed discussion of whether client's thoughts are aligned with an objective external truth (i.e. seeking essential coherence as opposed to functional coherence).	78	5.6 (2.27)
Defusion	6. Therapist conveys sense-making or literal understanding (i.e. aligning beliefs with an objective reality) as a primary goal of therapy.	55	5.2 (1.87)

Open Response Style - ACT Inconsistent items - Comments

- I think the sense-making items are potentially problematic; many clients enter therapy for that reason (rather than to improve psychological flexibility) - and in a way, it is sense-making, just not sense-making in the traditional way. It may prove hard to score, and I'm not sure it's essential here.
- See previous remark on ACT inconsistent items

Open Response Style - ACT Inconsistent items - Decisions

- Highest scoring 3 items chosen

Hexaflex area	Aware Response Style - ACT Consistent items	Percentage scoring item as 6 or 7	MEAN (SD)
Present moment	4. Therapist helps the client to notice the stimuli (thoughts, feelings, situations) that hook them away from the present moment.	100	6.7 (0.48)
Present moment	2. Therapist uses present-moment-focus exercises (e.g. mindfulness exercises) to increase awareness of the moment including thoughts and feelings.	100	6.6 (0.52)
Present moment	1. Therapist directs the client's attention to the thoughts, feelings and bodily sensations that are present now.	100	6 (0.50)
Self as context	10. Therapist helps the client to experience that they are bigger than or contain their psychological experiences. (chosen over above item for breadth of hexaflex)	90	6.5 (0.97)
Self as context	3. Therapist helps the client to notice the self as distinct from the thoughts and feelings occurring in the moment (e.g. guides the client to take an observer perspective on psychological experiences).	80	6.5 (0.85)
Present moment	8. Therapist helps the client to track when they move away from being in the present moment.	80	6.3 (0.82)
Self as context	7. Therapist helps the client to notice choices over their actions in the presence of whatever psychological experiences (thoughts and feelings) are present.	80	6.2 (0.79)
Self as context	6. Therapist encourages the client to notice when they are attaching labels / evaluations / stories to themselves (e.g. conceptualised self).	70	5.9 (1.20)
Self as context	5. Therapist gives the client opportunities to shift to a different perspective (for example, an older or younger self, the observing-self, or another person).	60	5.9 (1.10)
Present moment	9. Therapist directs the client to notice the thoughts and feelings that arise in a certain context or situation.	60	5.7 (1.34)

Aware Response Style - ACT Consistent items - Comments

- All these items work well for me

Aware Response Style - ACT Consistent items - Decisions

- We have chosen item 10 over item 1 so that 'self-as-context' is represented. The top three items are all focused on present moment awareness.

Hexaflex area	Aware Response Style - ACT Inconsistent items	Percentage scoring item as 6 or 7	MEAN (SD)
Present moment / self as context	1. Therapist introduces or uses mindfulness and/or self-as-context exercises as methods to control or diminish unwanted thoughts, emotions and bodily sensations.	100	6.4 (1.58)
Present moment / self as context	3. Therapist reinforces client behaviours where mindfulness and/or self-as-context methods are used as means to control, diminish or distract from unwanted thoughts and feelings. (not included as similar to above item)	100	6.3 (1.89)
Present moment / self as context	5. Therapist introduces mindfulness or self-as-context exercises as formulaic exercises.	89	5.8 (1.81)
Present moment / self as context	2. Therapist introduces or uses mindfulness and/or self-as-context exercises to challenge the accuracy of beliefs or thoughts.	67	5.4 (1.71)
Self as context	6. Therapist addresses self as a matter of belief or "knowing in the mind".	33	4.3 (1.89)
Self as context	4. Therapist encourages perspective taking as a moral imperative or social rule.	33	4.3 (2.16)

Aware Response Style - ACT Inconsistent items - Comments

- Good contra items here - getting at function.
- While I like item 5, I also recognise that there may feel like an element of formality when e.g. suggesting/practising a more meditative exercise for between-session practice, especially in the early stages of therapy.
- In certain contexts items 1, 2 and 5 may be useful for clients, for instance when dealing with folks with ASS
- I've not really come across the problem addressed in 4 and 6
- I'm not sure people would be able to understand / spot this so easily.

Aware Response Style - ACT Inconsistent items - Decisions

- Item 3 not included as similar to item 1

Hexaflex area	Engaged Response Style - ACT Consistent items	Percentage scoring as 6 or 7	MEAN (SD)
Values	2. Therapist gives the client opportunities to clarify their values (overarching life goals and qualities of action).	100	6.9 (0.32)
Values	6. Therapist helps the client to discriminate personal values from social pressures/social norms and the wishes and desires of others (possibly also including the therapist). (similar to item 1, so part of this item has been incorporated into item 1)	90	6.5 (0.71)
Values/Committee	1. Therapist emphasises that changing behaviour to enable greater consistency with values is a focus of therapy.	90	6.5 (0.71)

d action			
Values / committed action	8. Therapist explores distinction between short-term and long-term consequences of behaviours.	90	6.5 (0.71)
Values / committed action	5. Therapist directs the client to notice barriers to values-based actions and helps the client notice patterns of workable/unworkable responses	90	6.5 (0.97)
Values / committed action	4. Therapist gives the client opportunities to clearly state goals/committed actions in pursuit of values.	90	6.4 (0.70)
Values / committed action	10. Therapist helps the client to identify different values-based actions they might take in the presence of potential barriers.	90	6.4 (0.97)
Values / committed action	3. Therapist helps the client to link their behaviour change to their personal values (i.e. therapist emphasises that behaviour change can serve the purpose of greater contact with values).	80	6.4 (1.07)
Committed action	12. Therapist helps the client to make plans and set goals likely to meet reinforcing consequences or otherwise shape effective action. (highest scoring item focused on committed action)	80	6.2 (1.03)
Committed action	9. Therapist draws client's attention to previous or on-going examples of committed action which client has not seen in those terms.	70	6.1 (0.88)
Values	11. Therapist helps the client to see the connection between consequences experienced or available and their stated values.	60	5.6 (1.35)
Values / committed action	7. Therapist encourages client to differentiate positive from negative reinforcement in identifying values.	50	5.3 (1.49)

Engaged Response Style - ACT Consistent items - Comments

- Good. Therapist encourages client to differentiate positive from negative reinforcement in identifying values. - some examples or clarification might be useful. e.g., "Therapist encourages client to differentiate positive from negative reinforcement in identifying values (i.e., working for something vs. working for relief from something)
- Not quite sure why 7 is in there. 9 is really important (common missed opportunity in new therapists to think committed action is all about building new behaviours, rather than also noticing existing ones)
- I'm not sure most therapist would know what you meant by number 7.

Engaged Response Style - ACT Consistent items - Decisions

- The top 2 items are similar, so the highest rated item has been edited slightly to incorporate part of the next item: "Therapist gives the client opportunities to clarify their **own** values (overarching life goals and qualities of action)." This allows the next item to be included and gives a greater breadth.
- 12 has been included as it is the highest scoring item focused on committed action. On reflection, we have added in "consistent with own values" at the end of the sentence.

Hexaflex area	Engaged Response Style - ACT Inconsistent items	Percentage scoring as 6 or 7	MEAN (SD)
Values	2. Therapist imposes their own, other's or society's values upon the client (i.e. suggests what the client should or should not value or what valuing something should look like).	89	6.1 (1.91)
Committed action	4. Therapist encourages the client's proposed plans even when there are clear impracticalities (e.g. clearly excessive goals).	89	5.5 (1.96)
Committed action	3. Therapist coordinates a "just do it" type of responding, i.e. encourages action without first hearing or exploring, showing curiosity regarding the client's psychological experiences (e.g. painful thoughts feelings and emotions) when undertaking new activities.	78	5.9 (1.91)
Values / committed action	1. Therapist encourages activity for "activity's sake" (i.e. emphasis on increasing activity out of the context of values).	78	5.7 (1.49)
Values / committed action	5. Therapist encourages goal-directed activity that is not in the context of values (i.e. behaviour is about achieving a particular goal, which is not explored in the context of values).	78	5.6 (1.90)

Engaged Response Style - ACT Inconsistent items - Comments

- Item 1 could mention something like e.g. 'keeping busy'
- Highest scoring 3 items chosen
- On reflection, we have edited item 4 to "Therapist encourages the client's proposed plans even when the client has noticed clear impracticalities." As this slight edit makes the item more fitting with ACT.
- We have also taken the first part off item 3 to make it clearer, so it now reads: "Therapist encourages action without first hearing, exploring or showing curiosity regarding the client's psychological experiences (e.g. painful thoughts feelings and emotions) when undertaking new activities."

Engaged Response Style - ACT Inconsistent items - Decisions

D.3 Third draft of ACT-FM for final comments

The ACT Fidelity Measure (ACT FM)

About the ACT FM

This measure is intended to be used by clinicians who are experienced in ACT and understand the principles of the approach. It can be used to rate clinician fidelity to ACT in a variety of contexts (e.g. as a tool to evaluate your own or another clinician's practice, or as a research tool).

The items capture four key areas within ACT: Therapist Stance, Open Response Style, Aware Response Style and Engaged Response Style. These are outlined below with definitions. In the measure, there are items to score the therapist's behaviours as consistent and inconsistent with these areas. This is because it is possible to be both ACT consistent and inconsistent within the same therapy session, which may prove useful to record for research or training purposes. However, if rating the inconsistent items is not relevant for your purposes, then please feel free to omit these items. Within the Open Response Style section, an example of an ACT consistent item, is 'Therapist encourages the client to "stay with" painful thoughts, feelings and emotions, in the service of their values' and an example of an ACT inconsistent item is 'Therapist encourages the client to "think positive" or to substitute negative for positive thoughts as a treatment goal'.

Therapist Stance

The stance taken by the therapist is equal, compassionate and non-judgemental. The therapist should show empathy and warmth and be guided by what the client brings. The therapist does not try to change the client's mind, but to guide noticing of their own experience using experiential techniques. The therapist encourages responsibility, focuses on context and models psychological flexibility responses and behaviour.

Aware Response Style

This is the ability to flexibly contact the present moment. This might involve practicing exercises designed to enhance the client's ability to non-judgementally attend to the present moment. The therapist may encourage the client to take an observer perspective on their psychological experiences, when doing so helps increase the effectiveness of client behaviour.

Open Response Style

This is the ability to open-up to experiences, and to observe and describe these without becoming entangled in them or trying to diminish them. The therapist might work on skills that promote the client's willingness to sit with difficult thoughts, emotions or sensations, when in the service of their values and goals. They might use defusion techniques or exercises with the client, giving them the opportunity to notice or distance themselves from their thoughts.

Engaged Response Style

This is the ability to identify, clarify and act according to one's values on an ongoing basis. The therapist might give the client opportunities to identify their values and to define goals and actions that move the client's behaviours towards personally important ongoing qualities, and then to plan and do these actions.

How to use the ACT FM

- Before scoring the session, familiarise yourself with the measure and the items within it so that you can easily find an item when you see the clinician evidence it during the session.
- As you listen to or view the session you may find it helpful to make notes in the space next to each item to aide your memory.
- Do not score the items until the end of the session.
- Only score based on behaviours you have observed, not what you think the clinician would have achieved if they had been given longer. Therapists may not have the opportunity to demonstrate all behaviours captured by the ACT FM, especially in short sessions.
- Have specific examples in mind when scoring.
- The therapist's behaviour should be scored irrespective of how the client responds to these behaviours.

Scoring

Give a rating for each item based on the clinician's behaviours you have observed. Items are rated as 0 if the behaviour did not occur, and from 1-3 if the behaviour did occur, only assign a score higher than 0 if you hear or see examples of the behaviour. Higher scores are given for the behaviour occurring more consistently. You will need to use your clinical judgment when scoring, bearing in mind the context of the therapy session and considering the function of the therapist behaviour. Only give whole point answers, e.g. do not score 2.5.

A total score for each area can be calculated by adding the three items together. The ACT consistent items can be added to give a total ACT consistency score and the ACT inconsistent items can be added to give a total ACT inconsistency score.

The ACT-FM

Therapist name:

Client name:

Date:

Scoring

0 = This behaviour never occurred

1 = Therapist rarely enacts this behaviour

2 = Therapist sometimes enacts this behaviour

3 = Therapist consistently enacts this behaviour

Therapist stance - ACT consistent

1 Therapist uses experiential methods (e.g. exercises and metaphors) that are sensitive to the situation.

2 Therapist conveys that it is natural to experience painful or difficult thoughts and feelings when one is in circumstances such as those experienced by the client.

3 Therapist demonstrates a willingness to sit with their own and the client's painful thoughts and feelings and the situations that give rise to these.

0 | 1 | 2 | 3

Therapist stance - ACT inconsistent

13 Therapist lectures the client (e.g. gives prolonged advice and/or explanations).

14 Therapist rushes to reassure, diminish or move on from "unpleasant" or "difficult" thoughts and feelings when these arise.

15 Therapist methods/clinical conversations are at a conceptual level (i.e. therapist emphasises verbal understanding of concepts rather than experiential methods and behaviour change).

0 | 1 | 2 | 3

Open response style - ACT consistent

4 Therapist helps the client to notice thoughts as separate experiences from the events they describe.

5 Therapist gives the client opportunities to notice how they interact with the content of their thoughts or feelings (e.g. whether avoidant or open).

6 Therapist encourages the client to "stay with" painful thoughts, feelings and emotions, in the service of their values.

0 | 1 | 2 | 3

Open response style - ACT inconsistent

16 Therapist encourages the client to control or to diminish distress (or other emotions) as the primary goal of therapy.

17 Therapist encourages the client to "think positive" or to substitute negative for positive thoughts as a treatment goal.

18 Therapist encourages or reinforces the view that fusion or avoidance are implicitly bad, rather than judging them on basis of workability.

0 | 1 | 2 | 3

Scoring

- 0 = This behaviour never occurred
- 1 = Therapist rarely enacts this behaviour
- 2 = Therapist sometimes enacts this behaviour
- 3 = Therapist consistently enacts this behaviour

Aware response style - ACT consistent

7 Therapist uses present-moment-focus exercises (e.g. mindfulness exercises) to increase awareness of the moment, including thoughts and feelings.

8 Therapist helps the client to notice the stimuli (thoughts, feelings, situations) that hook them away from the present moment.

9 Therapist helps the client to experience that they are bigger than or contain their psychological experiences.

0 1 2 3

Aware response style - ACT inconsistent

19 Therapist introduces or uses mindfulness and/or self-as-context methods as means to control or diminish or distract from unwanted thoughts, emotions and bodily sensations

20 Therapist introduces or uses mindfulness and/or self-as-context exercises to challenge the accuracy of beliefs or thoughts.

21 Therapist introduces mindfulness or self-as-context exercises as formulaic exercises.

0 1 2 3

Engaged response style - ACT consistent

10 Therapist emphasises that changing behaviour to enable greater consistency with values is a focus of therapy.

11 Therapist gives the client opportunities to clarify their own values (overarching life goals and qualities of action).

12 Therapist helps the client to make plans and set goals likely to meet reinforcing consequences (i.e. shapes action that is consistent with their values).

0 1 2 3

Engaged response style - ACT inconsistent

22 Therapist imposes their own, other's or society's values upon the client (i.e. suggests what the client should or should not value or what valuing something should look like).

23 Therapist encourages action without first hearing, exploring or showing curiosity regarding the client's psychological experiences (e.g. painful thoughts feelings and emotions).

24 Therapist encourages the client's proposed plans even when the client has noticed clear impracticalities.

0 1 2 3

Therapist scoring

ACT Consistent Therapist Stance (0-9) =
ACT Consistent Open Response Style (0-9) =
ACT Consistent Aware Response Style (0-9) =
ACT Consistent Engaged Response Style (0-9) =
Total ACT Consistency Score (0-36) =

ACT Inconsistent Therapist Stance (0-9) =
ACT Inconsistent Open Response Style (0-9) =
ACT Inconsistent Aware Response Style (0-9) =
ACT Inconsistent Engaged Response Style (0-9) =
Total ACT Inconsistency Score (0-36) =

D.4 Screen shots of round 3 BOS.

Creating an ACT fidelity measure - A delphi study (Round 3)

Page 1: Comments and suggestions

Thank you for taking part in this final round.

We are primarily interested in your feedback on the content of the measure, however suggestions on the layout and appearance are welcome.

The text boxes below will expand to allow as much text as is needed. Please also feel free to leave boxes blank if you do not have specific feedback.

Please provide any comments or suggestions on the **manual and scoring** here:

Please provide any comments or suggestions on the **items** here:

Do you have any suggestions for the **appearance / layout / useability** of the ACT-FM?

1 / 5

Please provide any **other** comments and suggestions that you might have here:

Please provide any reflections on the process of taking part in this Delphi study here:

2 / 5

Page 2: Demographics

Thank you for taking part in this final round of the Delphi. If you do not mind, please leave your demographic information below. This will only be used to describe the whole sample of participants and will not be used to describe individuals.

Please state your gender

Country of residence

How many years experience do you have working with ACT?

Are you recognised by the Association of Contextual Behavioural Science as a Peer Reviewed ACT Trainer?

- Yes
- No

How do you mostly work?

3 / 5

- Mainly clinical work
- Mainly research work
- Clinical and research work equally

If you would like to be acknowledged as a contributor to the Delphi study in publications, and you did not provide this in round 2, please state your name as you would like it to appear. (Your name would be published as an acknowledgment but it would not be linked to any of your individual comments or ratings of the items).

Page 3: Thank you

Once we have collated the information and developed the ACT-FM further, we will email a final version of the ACT-FM for you to use freely.

Thank you again for your participation, it is very much appreciated.

D.5 Summary of round 3 responses, sent as attachment

Comments and suggestions on the manual and scoring:

Comments	Decisions
1. None	
2. Looks clear and simple	
3. Looks great.	
4. I am not sure the following sentence in the manual is ACT-consistent: "The therapist's behaviour should be scored irrespective of how the client responds to these behaviours." A specific therapist's behavior might seem not very ACT consistent, but if it leads the patient showing higher psychological flexibility in session, it was a pragmatic behavior.	We have edited this, so that it states that the focus is on the therapist's behaviour, this allows the clients behaviour to be taken into account to an extent
5. No comments	
6. At the end of the introductory paragraph the inclusion of an example of consistent/inconsistent stance in relation to the 'Open Response Style' only may risk confusing the reader – why provide this only for the ORS? I suggest that the 4 paragraphs detailing definitions for: 1) Therapist Stance, 2) ORS, 3) ARS and 4) ERS , could be put into a table rather than the current format. Could examples of consistent/inconsistent examples of each of these also be included in the table?? 'Only score based on behaviours you have observed, not what you think the clinician would have achieved if they had been given longer'. Should be rewritten as follows: 'Only score based on behaviours you have observed, not what you think the clinician would have achieved if they had further time available in the session'. In the above statement and in other statements in the document (e.g. in the 'Scoring' section: 'Give a rating for each item based on the clinician's behaviours you have observed'), the use of the word 'observed' is potentially problematic. What if an audio recording (with no video) is used to rate the fidelity of the practitioner? Maybe change to 'behaviours that the clinician performs'?	It would be good to add in examples of each and put into a table, but there isn't much space! We have edited the text to make it much clearer that it is an example. Edited to this
On this point... Therapists could perform non-verbal behaviours that may be consistent with Open, Aware and Engaged styles of responding. I'm I correct in saying though that the bulk of the rating is done on what the therapist says? Just wanted to highlight that this might be an issue if comparing ratings made through direct observation/video versus audio recordings...	Edited to 'heard or observed' An interesting point for future research.
You may wish to clarify in the section 'Give a rating for each item based on the clinician's behaviours you have observed', that this should be done by placing a tick or x in the appropriate scoring column next to each item - for added clarity	Added in
7. I think it's great: very clear, very helpful. Flattered if any of my suggestions have been of benefit.	
8. Clear and concise	

Comments and suggestions on the items:

Comments	Decisions
1. None	
2. The process by which they were selected is empirical and robust	
3. Only minor quibbles: Item 13: Certainly the therapist shouldn't lecture the client, but I don't think prolonged explanations are the same. Some things do require a lot of verbal unpacking as a setting event for more experiential work (perhaps). Item 15: Perhaps include the word 'excessive' (added words in CAPs) - e.g., "Therapist's methods or clinical conversations are at an EXCESSIVELY conceptual level (i.e., therapist OVERLY emphasises verbal understanding of concepts rather than experiential methods FOR behaviour change).	We have taken out the explanations part, so it now reads (e.g. gives prolonged advice) Added in
4. I'm OK with them	
5. I think I said this on previous pass/passes, but... Good as the items are, I still don't see it measuring that some kind of ABC functional analysis, or even just Workability exploration have taken place. Without those, there's a danger you're just throwing techniques at a problem, albeit ACT compatible ones. As it appears to me, one could be doing exactly that and still score well on this measure, and that's not good. Maybe you could include something under Stance? Sorry if this sounds strident, but I certainly wouldn't use this tool personally or as part of a study a design without something about FA/Workability in, as good as the rest of it is.	We agree that this is an important point and have brought back an item in the 'engaged consistent' section which achieved 90% agreement but was not in the top 3 – <i>“Therapist gives the client opportunities to notice workable and unworkable responses (i.e. whether their actions move them towards or away from their values).”</i> We hope that the information added to the manual in response to previous comments also helps to address this (“You will need to use your clinical judgment when scoring, bearing in mind the context of the therapy session and considering the function of the therapist behaviour.”) Additionally, item 1 aims to capture the therapist using ACT methods in an way that is sensitive to the situation, i.e. as opposed to “canned” ACT interventions or throwing techniques at a problem without considering the context/function. We realised after the field study that this item is ambiguous (whether getting at using experiential methods or getting at using ACT sensitively) so edited to make it clearer. After the field study it reads “Therapist chooses methods that are sensitive to the situation and context (i.e. in a flexible and responsive way rather than a 'one size fits all' approach).”
6. They appear, on what is a fairly quick look, to hit the mark very well.	
7. Well done	

Suggestions for the appearance / layout / usability of the ACT-FM:

Comments	Decisions
1. None	
2. The numbers relating to each individual item are confusing, in that the consistent ones start 1, 2, 3 in Therapist Stance. Then the natural thing is to read across the page to the inconsistent therapist stance box and here the numbers of items are 13, 14, 15. This is unnecessarily confusing. I think either the numbers should read across (i.e. 1, 2,3 for consistent stance, then 4, 5, 6 of inconsistent stance, then 7, 8, 9 for open response consistent and then 10, 11, 12 for open response inconsistent etc). Or the items are not given numbers. This might make it harder for research purposes where scoring and coding might be better with numbers.	We have changed the numbering to your suggestion
3. I think the readability of some of the items could be checked with a small panel of people to ensure they are phrased as well as can be.	We have now done this!
4. No	
5. Not my strong point, I'm afraid	
6. Page 1 states: 'As you listen to or view the session you may find it helpful to make notes in the space next to each item to aide your memory'. In light of the formatting of the measure, it might make better sense for this to read: 'As you listen to or view the session you may find it helpful to make notes in the space below each item to aide your memory'. Could the space On pages 2 and 3 available for making notes be made larger? Maybe take the font size down 1 point to make more space?	The wording has been edited to your suggestion and we have created a bigger space for writing notes for each item by changing the layout of the scoring part and taking the font down to 10.5.
On Page 2 in the first box there should be an item about how the rating was conducted - direct observation/video recording/audio recording.	Added
I would suggest that the name and professional qualification of the person rating the therapists should also be listed.	Added
7. I think it's very nicely laid out.	
8. Easy to use	

Any other comments and suggestions:

I really like it.

All good

Excellent work - a really worthwhile research project and tool - well done.

I think this is a valuable piece of work: my congratulations.

Nothing else

It might be a good idea to get some folks who don't know anything about ACT to provide feedback

Any reflections on the process of taking part in this Delphi study:

It has been intellectually interesting!

Good measure - I'd like to see a study where self-rated and observer rated competencies are compared on this measure, let me know if I can be involved - (email removed for anonymity of comments) It's been really interesting: thank you for inviting me.

It has been an interesting, constructive and thought-provoking experience.

As an academic interested in ACT-related research, and the development of ACT-related measures, I would welcome the opportunity to be a co-author on any academic papers that stem from the measurement development if this would be of interest to the research team.

It's been a thought-provoking and very rewarding exercise: I'm proud to have made a contribution to this.

Lovely work!

Appendix E. Field study materials

E.1 Recruitment invitation email for field study



UNIVERSITY OF LEEDS

Dear potential participant,

Re: Testing a fidelity measure for Acceptance and Commitment Therapy (ACT)

I am a Psychologist in Clinical Training at the University of Leeds. For my thesis project, I am developing a measure of therapist fidelity to the Acceptance and Commitment Therapy (ACT) treatment model, that can be used across clinical presentations. We have recently created the measure through expert consultation using a Delphi method. The current study aims to investigate the reliability and validity of the measure. Once validated, the measure will be made freely available and can be used to ensure treatment fidelity in future research on the effectiveness of ACT. It can also be used to evaluate therapist's skills when practicing ACT.

We are looking to recruit ACT clinicians who have been working with ACT in a clinical and/or research capacity for three years or more.

If you decide to take part, we will ask you to use the fidelity measure to rate therapy videos. Other ACT clinicians will also be rating the same videos. We hope that this will allow us to identify any problematic items and this may result in some items being edited if necessary. We would also use the ratings to calculate inter-rater reliability of the measure and we would ask you some questions about the ease of use of the measure to assess face validity.

You may choose not to respond to any of the questions and you may withdraw at any time without giving any reason. Once you have submitted your ratings, it will not be possible to withdraw the data from the study as ratings will be shared and discrepancies will be discussed immediately after being rated. We can reimburse travel expenses and offer £30 for your time.

This research has received ethical approval from the School of Medicine Ethics Committee (approval date: 12.2.18; approval number: MREC17-007).

If you have any questions, please feel free to contact me on ps07lo@leeds.ac.uk.

Lucy O'Neill
Trainee Clinical Psychologist
Institute of Health Sciences
University of Leeds
Level 10 Worsley Building
Clarendon Way
Leeds
LS2 9NL

(Supervised by Dr Christopher Graham: C.D.Graham@leeds.ac.uk and Dr Gary Latchford: G.Latchford@leeds.ac.uk)

Testing a fidelity measure for Acceptance and Commitment Therapy (ACT)

You are being invited to take part in a study to investigate the reliability and validity of a newly developed measure for therapist fidelity to the ACT treatment model. Taking part in this study is completely voluntary. Please take time to read the following information carefully. If you would like to ask any questions please contact a member of the research team (listed below).

What is the purpose of the study?

We have recently developed a fidelity measure for ACT through expert consultation using a Delphi method. The current study aims to investigate the reliability and validity of the measure – by asking experienced ACT clinicians to use the measure to rate some recordings of therapy sessions. Once validated, the measure will be made freely available and can be used to ensure treatment fidelity in future research on the effectiveness of ACT. It can also be used to evaluate therapist's skills when learning or practicing ACT.

Why have I been invited to take part?

We are approaching clinicians who have been practicing ACT for a minimum of 3 years. We would value your input in trying out the newly developed measure.

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

We will ask you to use the fidelity measure to rate some therapy recordings. Other clinicians will also be rating the same videos. There will be no right or wrong answers when rating the session, the focus is on the utility of the measure, not your ability as a therapist. We hope that the ratings for the ACT videos will allow us to identify any problematic items in our new measure. We will use your ratings to calculate inter-rater reliability of the measure and we would ask for your feedback about the ease of use of the measure to assess face validity. This may result in some items being edited or removed if necessary. We can reimburse travel expenses and offer £30 for your time. You will be offered time with the researcher to debrief if needed.

Do I have to take part?

It is up to you whether you decide to take part. If you do decide to take part, you will be asked to complete a consent form. You will be asked to meet with ourselves and the other ACT clinicians who are taking part at a convenient location for approximately one hour. Simultaneously we will all watch the therapy videos and rate using the ACT-FM, your responses will not have your name on and will be fully anonymised. We will immediately discuss discrepancies in scoring after each video. We hope that this will allow us to identify any problematic items and update the measure accordingly. You may choose not to respond to any of the questions and you may withdraw at any time during the rating without giving any reason. Once you have submitted your ratings, it will not be possible to withdraw the data from the study as ratings will be shared and discrepancies will be discussed immediately after being rated.

What will happen to the information I provide?

The ratings and comments that you make from rating the videos will be shared with other ACT clinicians who are taking part. This is to allow discrepancies in ratings to be discussed. The ratings will be written up in the thesis and submitted for publication in a peer reviewed journal, but these will be anonymous and will not be able to be identified as you. Any identifiable information such as your name or contact details will be stored separately to your responses. Your responses will not have your name on and will be fully anonymised. It will not be possible to identify your responses once they have been submitted and therefore it will not be possible to withdraw from this study after they have been submitted. The anonymised data which cannot be linked to you will be securely stored in a locked cabinet at the University of Leeds for up to ten years, or as needed for the study to be published in a peer reviewed journal.

Who has reviewed the study?

This research has received ethical approval from the School of Medicine Ethics Committee (approval date: 12.2.18; approval number: MREC17-007).

What if there is a problem?

You are welcome to raise any complaints or concerns about this study with me using the contact details below and I will do my best to address them. You can also contact the supervisors of this project using the contact details below if you wish. A formal complaint can be made by contacting: Claire Skinner (C.E.Skinner@leeds.ac.uk, Faculty Head of Research Support, Medicine and Health Research Office

Lucy O'Neill: ps071o@leeds.ac.uk

Leeds Institute of Health Sciences, University of Leeds, School of Medicine, Level 10, Worsley Building, Clarendon Way, Leeds, LS2 9NL. Supervised by Dr Christopher Graham c.d.graham@leeds.ac.uk and Dr Gary Latchford G.Latchford@leeds.ac.uk

E.3 Consent form

Title of project: Testing a fidelity measure for Acceptance and Commitment Therapy (ACT)

Name of researchers: Dr Christopher Graham, Dr Gary Latchford, Lucy O'Neill

Please initial in each box to show you have understood and agree:

I confirm that I have read and understood the information sheet for the above study.

I have had the opportunity to consider the information, ask questions and have had these answered satisfactorily.

I understand that I am free to withdraw during the study, without giving any reason

I understand that once I have submitted my ratings and have taken part in a discussion about the ease of use of the measure then it will no longer be possible to withdraw my contributions as they are completely anonymous and my answers cannot be linked with my name.

I agree to the use of my responses in the final report. It will not be possible to recognise my individual responses, they will be fully anonymised.

I agree to take part in the study.

Please fill in the following details:

Name of Participant: _____

Date: _____

Signature: _____

E.4 ACT-FM for the field study

The ACT Fidelity Measure (ACT FM)

About the ACT FM

This measure is intended to be used by clinicians who are experienced in ACT and understand the principles of the approach. It can be used to rate clinician fidelity to ACT in a variety of contexts (e.g. as a tool to evaluate your own or another clinician's practice, or as a research tool).

The items capture four key areas within ACT: Therapist Stance, Open Response Style, Aware Response Style and Engaged Response Style. These are outlined below with definitions. There are items to score the therapist's behaviours as consistent and inconsistent with these areas. This is because it is possible to be both ACT consistent and inconsistent within the same therapy session, which may prove useful to record for research or training purposes. For example, within the Open Response Style section, an ACT consistent item is 'Therapist encourages the client to "stay with" painful thoughts, feelings and emotions, in the service of their values' and an ACT inconsistent item is 'Therapist encourages the client to "think positive" or to substitute negative for positive thoughts as a treatment goal'. If rating the inconsistent items is not relevant for your purposes, then please feel free to omit these items.

Therapist Stance

The stance taken by the therapist is equal, compassionate and non-judgemental. The therapist should show empathy and warmth and be guided by what the client brings. The therapist does not try to change the client's mind, but to guide noticing of their own experience using experiential techniques. The therapist encourages responsibility, focuses on context and models psychological flexibility responses and behaviour.

Aware Response Style

This is the ability to flexibly contact the present moment. This might involve practicing exercises designed to enhance the client's ability to non-judgementally attend to the present moment. The therapist may encourage the client to take an observer perspective on their psychological experiences, when doing so helps increase the effectiveness of client behaviour.

Open Response Style

This is the ability to open-up to experiences, and to observe and describe these without becoming entangled in them or trying to diminish them. The therapist might work on skills that promote the client's willingness to sit with difficult thoughts, emotions or sensations, when in the service of their values and goals. They might use defusion techniques or exercises with the client, giving them the opportunity to notice or distance themselves from their thoughts.

Engaged Response Style

This is the ability to identify, clarify and act according to one's values on an ongoing basis. The therapist might give the client opportunities to identify their values and to define goals and actions that move the client's behaviours towards personally important ongoing qualities, and then to plan and do these actions.

How to use the ACT FM

- Before scoring the session, familiarise yourself with the measure and the items so that you can easily find an item when you see the clinician evidence it during the session.
- The focus of this measure is on the therapist's behaviour.
- As you listen to or view the session you may find it helpful to make notes in the space below each item to aide your memory.
- Only score based on behaviours you have observed, not what you think the clinician would have achieved if they had further time available. Therapists may not have the opportunity to demonstrate all behaviours captured by the ACT FM, especially in short sessions.
- Have specific examples in mind when scoring.
- Do not score the items until the end of the session.

Scoring

Give a rating for each item based on the behaviours you have heard or observed by circling the number next to each item. Items are rated as 0 if the behaviour did not occur, and from 1-3 if the behaviour did occur, only assign a score higher than 0 if you hear or see examples of the behaviour. Higher scores are given for the behaviour occurring more consistently. You will need to use your clinical judgment when scoring, bearing in mind the context of the therapy session and considering the function of the therapist behaviour. Only give whole point answers, e.g. do not score 2.5.

The ACT-FM

Raters name and professional qualification:

Therapist name and professional qualification:

Client identifier:

Direct observation / Audio recording / Video recording

Date of session:

Date of rating:

Scoring

0 = This behaviour never occurred

1 = Therapist rarely enacts this behaviour

2 = Therapist sometimes enacts this behaviour

3 = Therapist consistently enacts this behaviour

Therapist stance - ACT consistent

Rating

1 Therapist uses experiential methods (e.g. exercises and metaphors) that are sensitive to the situation. **0 1 2 3**

2 Therapist conveys that it is natural to experience painful or difficult thoughts and feelings when one is in circumstances such as those experienced by the client. **0 1 2 3**

3 Therapist demonstrates a willingness to sit with their own and the client's painful thoughts and feelings and the situations that give rise to these. **0 1 2 3**

Therapist stance - ACT inconsistent

Rating

4 Therapist lectures the client (e.g. gives prolonged advice or tries to convince the client). **0 1 2 3**

5 Therapist rushes to reassure, diminish or move on from "unpleasant" or "difficult" thoughts and feelings when these arise. **0 1 2 3**

6 Therapist methods/clinical conversations are at an excessively conceptual level (i.e. therapist overly emphasises verbal understanding of concepts rather than experiential methods for behaviour change). **0 1 2 3**

Open response style - ACT consistent

Rating

7 Therapist helps the client to notice thoughts as separate experiences from the events they describe. **0 1 2 3**

8 Therapist gives the client opportunities to notice how they interact with the content of their thoughts or feelings (e.g. whether avoidant or open). **0 1 2 3**

9 Therapist encourages the client to "stay with" painful thoughts, feelings and emotions, in the service of their values. **0 1 2 3**

Open response style - ACT inconsistent

Rating

10 Therapist encourages the client to control or to diminish distress (or other emotions) as the primary goal of therapy. **0 1 2 3**

11 Therapist encourages the client to "think positive" or to substitute negative for positive thoughts as a treatment goal. **0 1 2 3**

12 Therapist encourages or reinforces the view that fusion or avoidance are implicitly bad, rather than judging them on basis of workability. **0 1 2 3**

Scoring

0 = This behaviour never occurred

1 = Therapist rarely enacts this behaviour

2 = Therapist sometimes enacts this behaviour

3 = Therapist consistently enacts this behaviour

Aware response style - ACT consistent

Rating

13 Therapist uses present-moment-focus exercises (e.g. mindfulness exercises) to increase awareness of the moment, including thoughts and feelings.

0 1 2 3

14 Therapist helps the client to notice the stimuli (thoughts, feelings, situations) that hook them away from the present moment.

0 1 2 3

15 Therapist helps the client to experience that they are bigger than or contain their psychological experiences.

0 1 2 3

Aware response style - ACT inconsistent

Rating

16 Therapist introduces or uses mindfulness and/or self-as-context methods as means to control or diminish or distract from unwanted thoughts, emotions and bodily sensations

0 1 2 3

17 Therapist introduces or uses mindfulness and/or self-as-context exercises to challenge the accuracy of beliefs or thoughts.

0 1 2 3

18 Therapist introduces mindfulness or self-as-context exercises as formulaic exercises.

0 1 2 3

Engaged response style - ACT consistent

Rating

19 Therapist gives the client opportunities to notice workable and unworkable responses (i.e. whether their actions move them towards or away from their values).

0 1 2 3

20 Therapist gives the client opportunities to clarify their own values (overarching life goals and qualities of action).

0 1 2 3

21 Therapist helps the client to make plans and set goals likely to meet reinforcing consequences (i.e. shapes action that is consistent with their values).

0 1 2 3

Engaged response style - ACT inconsistent

Rating

22 Therapist imposes their own, other's or society's values upon the client (i.e. suggests what the client should or should not value or what valuing something should look like).

0 1 2 3

23 Therapist encourages action without first hearing, exploring or showing curiosity regarding the client's psychological experiences (e.g. painful thoughts, feelings and emotions).

0 1 2 3

24 Therapist encourages the client's proposed plans even when the client has noticed clear impracticalities.

0 1 2 3

Scoring

A total score for each subscale can be calculated by adding the three items together. The ACT consistent items can be added to give a total ACT consistency score and the ACT inconsistent items can be added to give a total ACT inconsistency score.

ACT Consistent Therapist Stance (0-9) =

ACT Consistent Open Response Style (0-9) =

ACT Consistent Aware Response Style (0-9) =

ACT Consistent Engaged Response Style (0-9) =

Total ACT Consistency Score (0-36) =

ACT Inconsistent Therapist Stance (0-9) =

ACT Inconsistent Open Response Style (0-9) =

ACT Inconsistent Aware Response Style (0-9) =

ACT Inconsistent Engaged Response Style (0-9) =

Total ACT Inconsistency Score (0-36) =

E.5 Usability questionnaire

Title of project: Testing a fidelity measure for Acceptance and Commitment Therapy (ACT)

Demographic Form: Please provide the following details. Your details will be used to describe the overall demographic of the clinicians who have taken part and will not be linked to your individual answers to the fidelity rating.

Age:

Gender:

Number of years practicing ACT:

Mostly clinical work / mostly research work / clinical and research work evenly

Which client group(s) have you practiced ACT with?

Face validity questions

Please rate the following questions on the 1-7 scale where 1=not at all and 7=extremely

	Not at all 1	2	3	4	5	6	Extre mely 7
a) How easy to understand was this fidelity measure?							
b) How easy to use was this fidelity measure?							
c) How easy to use was the response format?							
d) Were any items particularly difficult to understand? (please write these below and consider giving reasons for your answer and any suggestions for improvement)							
e) Were any items particularly difficult to rate? (please write these below and consider giving reasons for your answer and any suggestions for improvement)							

Please use this space for comments or reasons for your answers, you may continue over leaf if necessary.

Appendix F. Field study results

F.1 Raw data for comments

Comments on the use of the fidelity measure

Ptp	Comments
1	Order of the instructions to clarify not to score the items till the end. Items opposites clarification.
2	The consistent and inconsistent items aren't exact opposites. You might want to highlight the green and red boxes are not opposites – or just say they are not opposites. Maybe order the 'how to use the ACT FM' bullet point bit better.
3	Information says to score after. Before trying it out I was concerned that I wouldn't be able to remember well enough if I was to score at the end. Emphasise that you need to score at the end because ratings may change e.g. from 1 to 3 but encourage making notes while watching.
4	Does the form get scored across a whole intervention and then a composite score given? Some processes will not be done within one session and it may appear they are not competent...how do you score it overall? There are no items explicitly on educating the client to ACT / pointing at 'creative hopelessness'.
5	Make clearer to advise scoring at end and making notes.
7	Maybe make clearer that we can make notes on the measure throughout then score at the end. Maybe add more note taking space.
8	Too much for me personally! Could we remove some/shorten (e.g. remove ACT inconsistent part clinically?) Hard to hold it all in mind! Hard as separated into small parts/behaviours but ACT feels more of an approach / harder to define so specifically (e.g. lots of implicit things present but not specific behaviours?)
9	A few items overlap / similar and could score the same therapist behaviour. Could do with some space to write comments

Comments on items that were difficult to understand or rate

Item	Comments
1	Ptp 1 Experiential <u>processes</u> Ptp 2 What does experiential exercises mean? ptp 3 Change methods to processes, be more inclusive in the brackets Ptp 4 He used methods but these were not exercises/ metaphors Ptp 5 Use of word 'exercises' difficult in awareness/stance stuff, 'processes' may be a more helpful word? Its more inclusive. Ptp 6 I was looking for specific exercises and metaphors rather than a general sense of 'experiential and sensitive' Ptp 7 Ambiguous – using the examples suggests only look for exercises/metaphors, maybe elaborate "this could include exercises/metaphors but not solely this". Ptp 9 Easy to interpret exercise/metaphor as a therapy technique rather than overall approach

-
- 4 Ptp 1 Take 'prolonged' bit out- can make it confusing, misinterpreted for talking too much
Ptp 5 'Prolonged' unhelpful, more about giving advice
- 6 Ptp 1 Possibly changing to be very clear about the idea of verbalising/intellectualising a lot
ptp 3 Change the word methods to processes
Ptp 5 Process over methods
- 9 Ptp 2 'In the service of values' more about willingness, values not explicitly discussed
ptp 3 Not yet clear on values
Ptp 5 Don't know if in line with values, needed for question!
Ptp 6 There was a lot of 'staying with' painful feelings, but none specifically in the service of values
Ptp 7 Rated 3 but then is the 'staying with' in the service of their values, I assumed it was but he didn't explicitly state this.
Ptp 9 Thought therapist did first part but not in context of values
- 13 Ptp 1 Take out 'exercises'
Ptp 2 Mindfulness focus or exercises or both? might be helpful to loose 'exercises'
ptp 3 Change to therapist uses present moment focus (take out the word exercises
Ptp 4 Was present moment focussed, but no exercises
Ptp 5 Use of word 'exercises' difficult in awareness/stance stuff, 'processes' may be a more helpful word? Its more inclusive.
Ptp 6 Could change to 'uses present moment focus to increase awareness of moment' (not exercises)
Ptp 7 Ambiguous. The e.g. suggests it needs a mindfulness exercise. Maybe remove the word 'exercise(s).
Ptp 9 Take out the word 'exercises'
- 15 Ptp 6 'Bigger than' phrase misled me. 'contain or separate from them' might work better. Although phrase 'contain' could mean that the patient was managing their experiences.
Ptp 7 Include 'separate from their experiences?' maybe take out 'bigger than'. The word 'containing' is ambiguous. Maybe "bigger than and separate from their psychological experiences".
Ptp 8 Do not really understand it sorry – might be me being silly! Could say 'separate to' / remove 'bigger than'?
Ptp 9 They are separate to their psychological experiences, 'contain' is an ambiguous word (could mean manage)
- 19 Ptp 2 Take out 'values' maybe as I would have scored 3
-

F.2 Raw data for SPSS

Case Processing Summary

		N	%
Cases	Valid	24	100.0
	Excluded ^a	0	.0
	Total	24	100.0

a. Listwise deletion based on all variables in the procedure.

Reliability Statistics

Cronbach's Alpha	N of Items
.963	9

Intraclass Correlation Coefficient

	Intraclass Correlation ^b	95% Confidence Interval		F Test with True Value 0			
		Lower Bound	Upper Bound	Value	df1	df2	Sig
Single Measures	.727 ^a	.598	.846	27.123	23	184	.000
Average Measures	.960	.930	.980	27.123	23	184	.000

Two-way random effects model where both people effects and measures effects are random.

a. The estimator is the same, whether the interaction effect is present or not.

b. Type A intraclass correlation coefficients using an absolute agreement definition.

F.3 Final version of the ACT-FM

The ACT Fidelity Measure (ACT-FM)

About the ACT-FM

This measure is intended to be used by clinicians who are experienced in ACT and understand the principles of the approach. It can be used to rate clinician fidelity to ACT in a variety of contexts (e.g. as a tool to evaluate your own or another clinician's practice, or as a research tool).

The items capture four key areas within ACT: Therapist Stance, Open Response Style, Aware Response Style and Engaged Response Style. These are outlined below with definitions. There are items to score the therapist's behaviours as consistent and inconsistent with these areas. For example, within the Open Response Style section, an ACT consistent item is 'Therapist gives the client opportunities to notice how they interact with their thoughts and/or feelings (e.g. whether avoidant or open)' and an ACT inconsistent item is 'Therapist encourages the client to "think positive" or to substitute negative for positive thoughts as a treatment goal'. This is because it is possible to be both ACT consistent and inconsistent within the same therapy session, which may be useful to record for research or training purposes. The consistent and inconsistent items are not opposites of each other. If rating the inconsistent items is not relevant for your purposes, then please feel free to omit these items.

Therapist Stance

The stance taken by the therapist is equal, compassionate and non-judgemental. The therapist should show empathy and warmth and be guided by what the client brings. The therapist does not try to change the client's mind, but to guide noticing of their own experience using experiential techniques. The therapist encourages responsibility, focuses on context and models psychological flexibility responses and behaviour.

Aware Response Style

This is the ability to flexibly contact the present moment. This might involve practicing exercises designed to enhance the client's ability to non-judgementally attend to the present moment. The therapist may encourage the client to take an observer perspective on their psychological experiences, when doing so helps increase the effectiveness of client behaviour.

Open Response Style

This is the ability to open-up to experiences, and to observe and describe these without becoming entangled in them or trying to diminish them. The therapist might work on skills that promote the client's willingness to sit with difficult thoughts, emotions or sensations, when in the service of their values and goals. They might use defusion techniques or exercises with the client, giving them the opportunity to notice or distance themselves from their thoughts.

Engaged Response Style

This is the ability to identify, clarify and act according to one's values on an ongoing basis. The therapist might give the client opportunities to identify their values. They may help the client to define goals and actions that support their values, and to plan and do these actions.

How to use the ACT-FM

- The focus of this measure is on the therapist's behaviour.
- Therapists may not have the opportunity to demonstrate all behaviours captured by the ACT FM, especially in short sessions.
- Only score based on behaviours you have observed, not what you think the therapist would have achieved if they had further time available.
- A single therapist behaviour can be coded for all relevant items, not just the most suitable one.
- Before scoring the session, familiarise yourself with the measure and the items so that you can easily find an item when you see the clinician evidence it.
- Make notes as you listen to or view the session in the space below each item.
- Have specific examples in mind when scoring.
- Score the items at the end of the session not throughout, as ratings may change.

Scoring

Give a rating for each item based on the behaviours you have heard or observed by circling the number next to each item. Items are rated as 0 if the behaviour did not occur, and from 1-3 if the behaviour did occur, only assign a score higher than 0 if you hear or see examples of the behaviour. Higher scores are given for the behaviour occurring more consistently. Only give whole point answers, e.g. do not score 2.5. You will need to use your clinical judgment when scoring, bearing in mind the context of the therapy session and considering the function of the therapist behaviour.

The ACT-FM

Raters name and professional qualification:

Therapist name and professional qualification:

Client identifier: Session number:

Length of session being rated:

Direct observation / Audio recording / Video recording

Date of session:

Date of rating:

Scoring

0 = This behaviour never occurred

1 = Therapist rarely enacts this behaviour

2 = Therapist sometimes enacts this behaviour

3 = Therapist consistently enacts this behaviour

Therapist stance - ACT consistent

Rating

1 Therapist chooses methods that are sensitive to the situation and context (i.e. in a flexible and responsive way rather than a 'one size fits all' approach). 0 1 2 3

2 Therapist uses experiential methods/questions (i.e. helps the client to notice and use their own experience rather than thoughts about their experience). 0 1 2 3

3 Therapist conveys that it is natural to experience painful or difficult thoughts and feelings when one is in circumstances such as those experienced by the client. 0 1 2 3

4 Therapist demonstrates a willingness to sit with their own and the client's painful thoughts and feelings and the situations that give rise to these. 0 1 2 3

Therapist stance - ACT inconsistent

Rating

5 Therapist lectures the client (e.g. gives advice, tries to convince the client, etc). 0 1 2 3

6 Therapist rushes to reassure, diminish or move on from "unpleasant" or "difficult" thoughts and feelings when these arise. 0 1 2 3

7 Therapist conversations are at an excessively conceptual level (i.e. therapist overly emphasises verbal understanding of concepts rather than using experiential methods for behaviour change). 0 1 2 3

Open response style - ACT consistent

Rating

8 Therapist helps the client to notice thoughts as separate experiences from the events they describe. 0 1 2 3

9 Therapist gives the client opportunities to notice how they interact with their thoughts and/or feelings (e.g. whether avoidant or open). 0 1 2 3

10 Therapist encourages the client to "stay with" painful thoughts and feelings (in the service of their values). 0 1 2 3

Open response style - ACT inconsistent

Rating

11 Therapist encourages the client to control or to diminish distress (or other emotions) as the primary goal of therapy. 0 1 2 3

12 Therapist encourages the client to "think positive" or to substitute negative for positive thoughts as a treatment goal. 0 1 2 3

13 Therapist encourages or reinforces the view that fusion or avoidance are implicitly bad, rather than judging them on basis of workability. 0 1 2 3

Scoring

0 = This behaviour never occurred
1 = Therapist rarely enacts this behaviour

2 = Therapist sometimes enacts this behaviour
3 = Therapist consistently enacts this behaviour

Aware response style - ACT consistent

Rating

14 Therapist uses present moment focus methods (e.g. mindfulness tasks, tracking, noticing, etc) to increase awareness of the moment, including thoughts and feelings. **0 1 2 3**

15 Therapist helps the client to notice the stimuli (thoughts, feelings, situations, etc) that hook them away from the present moment. **0 1 2 3**

16 Therapist helps the client to experience that they are bigger than and/or separate from their psychological experiences. **0 1 2 3**

Aware response style - ACT inconsistent

Rating

17 Therapist introduces or uses mindfulness and/or self-as-context methods as means to control or diminish or distract from unwanted thoughts, emotions and bodily sensations **0 1 2 3**

18 Therapist introduces or uses mindfulness and/or self-as-context methods to challenge the accuracy of beliefs or thoughts. **0 1 2 3**

19 Therapist introduces mindfulness and/or self-as-context methods as formulaic exercises. **0 1 2 3**

Engaged response style - ACT consistent

Rating

20 Therapist gives the client opportunities to notice workable and unworkable responses (e.g. whether their actions move them towards or away from their values). **0 1 2 3**

21 Therapist gives the client opportunities to clarify their own values (overarching life goals and qualities of action). **0 1 2 3**

22 Therapist helps the client to make plans and set goals likely to meet reinforcing consequences (i.e. shapes action that is consistent with their values). **0 1 2 3**

Engaged response style - ACT inconsistent

Rating

23 Therapist imposes their own, other's or society's values upon the client (i.e. suggests what the client should or should not value or what valuing something should look like). **0 1 2 3**

24 Therapist encourages action without first hearing, exploring or showing curiosity regarding the client's psychological experiences (e.g. painful thoughts, feelings and emotions). **0 1 2 3**

25 Therapist encourages the client's proposed plans even when the client has noticed clear impracticalities. **0 1 2 3**

Scoring

A total score for each subscale can be calculated by adding the 3 items together. The Therapist stance - ACT consistent section has 4 items, so please convert this to give a total out of 9 in line with the other sections by adding the 4 items, dividing by 4 and multiplying by 3. The ACT consistent domains can be added to give a total ACT consistency score and the ACT inconsistent domains can be added to give a total ACT inconsistency score.

ACT Consistent Therapist Stance (0-9) =
ACT Consistent Open Response Style (0-9) =
ACT Consistent Aware Response Style (0-9) =
ACT Consistent Engaged Response Style (0-9) =
Total ACT Consistency Score (0-36) =

ACT Inconsistent Therapist Stance (0-9) =
ACT Inconsistent Open Response Style (0-9) =
ACT Inconsistent Aware Response Style (0-9) =
ACT Inconsistent Engaged Response Style (0-9) =
Total ACT Inconsistency Score (0-36) =