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HANNAH SHAW BSc (Hons)

# THERAPEUTIC PROCESSES IN TRANSDIAGNOSTIC ACCEPTANCE AND COMMITMENT THERAPY GROUPS

Section A: A systematic review of mediation studies analysing the mechanisms of action in acceptance and commitment therapy for long-term physical health conditions.

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Section B: Understanding the therapeutic processes in liaison psychiatry acceptance and commitment therapy groups: A grounded theory approach

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# Summary of MRP portfolio

**Section A:** This offers a review of published mediation studies for Acceptance and Commitment Therapy (ACT) for long-term physical health conditions (LTCs). The aim was to establish if the hypothesised mechanisms of action underlying the ACT model mediated therapeutic outcomes for LTCs. Empirical studies examining mediators were critically evaluated and synthesised. Strong, consistent evidence was found for the broader concept of psychological flexibility, as a statistical mediator for outcomes. However, the evidence for acceptance and values as single constructs was insufficient. Further research is required to establish the role of the six core processes within psychological flexibility as independent constructs.

**Section B:** This presents a grounded theory study of the therapeutic processes in liaison psychiatry ACT groups, for individuals who have a LTC and experience mental health difficulties. Thirteen participants were interviewed about their experience of either attending or facilitating these groups. The theory captures 'the individual journey through a transdiagnostic ACT group'. The findings suggest that once a group framework was established, both group and ACT processes facilitated learning, leading to increased awareness. Beyond the group expectations and relationships to ACT appeared to be linked to longer term therapeutic benefits. The limitations, clinical and future research recommendations are discussed.

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# Section A

# A systematic review of mediation studies analysing the mechanisms of action in acceptance and commitment therapy for long-term physical health conditions.

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# Abstract

Long-term physical health conditions (LTCs) have a significant impact on the ability to live a full life, which can negatively affect personal wellbeing. Therefore, there is an increasing interest in psychological therapies for this part of the population. Acceptance and Commitment Therapy (ACT) is found to be effective, although more needs to be understood about the processes by which ACT influences outcomes. A review of mediation studies, systematically searched, was conducted to examine how ACT mediates outcomes in LTCs. Five electronic databases were searched and 18 studies met the inclusion criteria. A quality assessment tool, relevant to experimental randomised designs and mediation, was used to critique the papers. Ten studies were evaluated as high quality and eight as moderate quality. From the evidence reviewed, strong consistent support was found for the broad concept of psychological flexibility, as a statistical mediator for outcomes in LTCs. This incorporates six interrelated core processes. Two of these are acceptance and values, which when tested alone as separate constructs, the findings were inconsistent; therefore, the evidence was insufficient. Further qualitative and quantitative research is required to establish the role of each of the six interrelated processes as independent and combined constructs.

*Keywords:* ACT, Long-term condition, physical health, RCT, mediation.

# Introduction

## Long-term physical health conditions

Long-term conditions (LTCs) are defined as "health problems that require ongoing management over a period of years or decades" (World Health Organization, 2002, P.11). Traditionally conditions under this heading often had no cure (Department of Health, DoH, 2012), such as, epilepsy, diabetes and multiple sclerosis. However, additions have meant cancer, obesity and chronic pain are now similarly included as LTCs (Taylor et al., 2014). Likewise, many mental health difficulties are classified as LTCs, though, henceforth LTC will be used only to refer to physical health conditions.

A large number of the population have a LTC, in England this stands at around 15 million people (NHS Confederation, 2012), with prevalence set to rise, presenting a major challenge to health services (Naylor et al., 2012). Each LTC differs in terms of severity, progression and degree of self-monitoring (DoH, 2012). As a result, individuals vary in how they cope with distressing symptoms and adhere to treatment plans (Taylor et al., 2014). However, LTCs typically have a detrimental effect on quality of life (QoL), economic welfare and mood (Barnett et al., 2012; Moussavi, et al., 2007), with this population more likely to experience mental health difficulties, such as, depression and anxiety (Fenton & Stover, 2006; Cimpean & Drake, 2011). Living with a LTC and co-morbid mental health difficulty, adds another level of complexity, which often leads to poorer health outcomes (Goodwin, Curry, Naylor, Ross, & Duldig, 2010). Therefore, the psychological needs of individuals with LTCs should also be addressed to help improve wellbeing (Moussavi, et al., 2007).

## Psychological therapies for LTCs

LTCs require a certain level of self-management differentiated by medical tasks, emotional management and changing life roles (Lorig & Holman, 2003). Therefore, psychological interventions are important alongside pharmacological treatment (de Ridder, Geenan, Kuijer, & van Middendorp, 2008). Cognitive behavioral therapy (CBT) has been the most widely applied psychological therapy for LTCs, with an emphasis on improving self-management skills, so to reduce distress (Naylor et al., 2012; Hofmann, Asnaani, Vonk, Sawyer, & Fang, 2012).

Brassington et al. (2016) highlights that much of the evidence for the role of psychological interventions has been based on single diagnoses. Their application is therefore challenged when people present with co-morbidities, as is the case for over half of those with a LTC (Barnett et al., 2012). A psychological approach, thought to have particular clinical utility with this population, is acceptance and commitment therapy (ACT). ACT is a transdiagnostic approach, applying the same treatment principles across all health conditions (Norton & Paulus, 2016). Therefore, theory predicts ACT to be an appropriate model in this context, as it is not led by diagnosis, meaning it provides a good framework to be used with co-morbid presentations (Hayes, Luoma, Bond, Masuda, & Lillis, 2006).

## Acceptance and commitment therapy

In exploring this further, ACT interventions specifically target the relationship a person has to their unwanted experiences. These include, thoughts, feelings, physiological responses and memories. ACT does not try to change unwanted experiences, as it views suffering as a normal part of life (Hayes, Villatte, Levin, & Hilderbrandt, 2011).

Instead it advocates that individuals can still live meaningful lives in spite of distressing symptoms (Harris, 2006), by accepting them and expanding their life direction to focus on what they value. By doing this, distressing symptoms often reduce, despite this not been the main objective (Hayes et al., 2006). For instance, someone suffering with pain may have tried various treatments to try to exert control over or reduce their pain. However, it is proposed that this can result in increased suffering, by encouraging the use of avoidant coping strategies. ACT instead recognises that the symptoms themselves do not necessarily lead to diminished QoL and mood, but states that the relationship a person has to these experiences dictates outcome (Harris, 2009).

## Relational frame theory

ACT is theoretically underpinned by Relational Frame Theory (RFT), a behavioural model of human language and cognition that emphasises the context of verbal relations, as opposed to content (Hayes, Barnes-Holmes, & Roche, 2001). RFT proposes that as humans we are able to connect experiences through language. For instance, a child learns to associate the word ‘dog’ with the sound it makes and image of a dog. This theory advocates that learning about one verbal construct can transfer to other verbal constructs, in the absence of direct experience (Hayes et al., 2001). To give an example, a child may be playing outside, when they are stung by a wasp. The word ‘wasp’ then becomes aversive. At school they then learn that wasps and bees are similar. Consequently, on hearing the word ‘bee’ they become anxious, despite not having had any direct contact. By this account, human language itself can cause suffering (Harris, 2006) with the word alone evoking an unpleasant internal reaction.

As relational frames start to develop, they can become problematic when behavioural responses are based on verbal learning, rather than in response to the actual event (Hayes et al., 2004). Using the same example, the child may avoid playing outside in summer, for fear of bees, thereby reducing their contact with the external world. It is argued that, when individuals get caught up in these internal responses, they pay less attention to what is going on in the environment, with this internal struggle triggering distress (Harris, 2009). The context in which verbal relations are experienced is a concept known as psychological flexibility (Hayes et al., 2006). ACT aims to increase this, as higher levels are associated with less emotional distress (Hayes et al., 2011).

## The ACT model

Psychological flexibility is defined as the ability to respond openly to our experiences in the present moment, whilst taking action to lead a life consistent with our values and beliefs (Hayes et al., 2006). This overarching term is commonly used to describe the ACT model, which consists of six core therapeutic processes: acceptance, defusion, self-as-context, contact with the present moment, values and committed action (Table 1). Therapy aims to target all six core processes, through a combination of metaphor, experiential exercise and mindfulness practice (Harris, 2006), in order to increase psychological flexibility. The model is often visually represented as a “hexaflex” (Figure 1). The main active ingredients of ACT can further be divided into two key overlapping processes. The four components to the left of the “hexaflex” (Figure 1) are considered acceptance and mindfulness processes. Whereas, the four on the right are processes of commitment and behaviour change (Hayes, Pistorello, & Levin, 2012). Thus, the two central constructs serve both actions.

| Core Processes | Description |
|---|---|
| **Acceptance** | A willingness to embrace private experiences, without trying to change or alter them, for the purpose of engaging in valued living. |
| **Defusion** | Learning to not be controlled by thoughts, by stepping back and changing the way one interacts with them. Thoughts are seen as thoughts, not facts. |
| **Contact with the present moment** | A non-judgemental awareness of both internal and external experiences, so to consciously connect with what is happening here and now. |
| **Self as context** | The self is viewed as an observer, to foster an awareness of experiences without attaching unhelpful self-evaluations to them. |
| **Values** | Qualities of action that guide an individual's behaviour. Values are not achieved, but offer meaning, purpose and direction in life. |
| **Committed Action** | Concrete goals set by the individual to act in line with their values. These can be achieved and encourage long-term behaviour change. |

*Table 1:* Six core processes in ACT

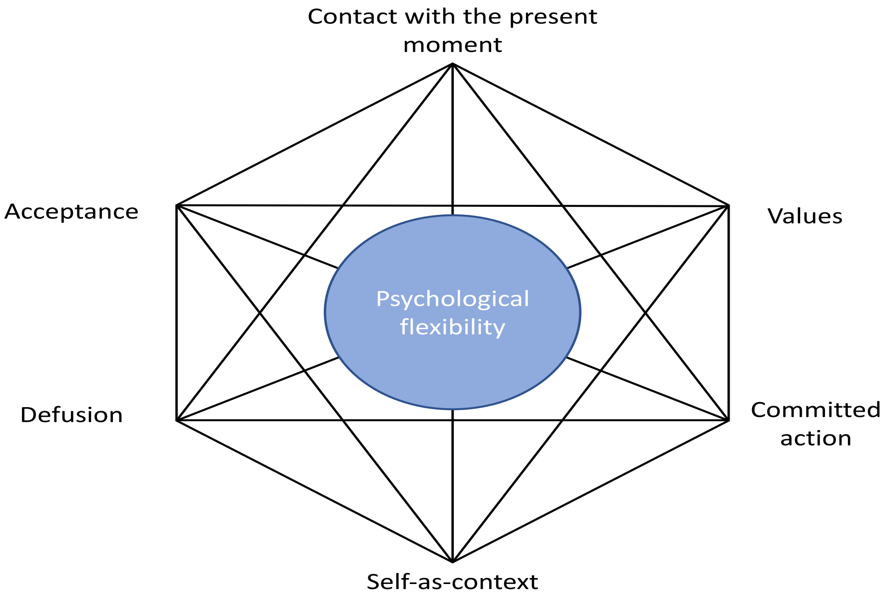

*Figure 1:* ACT “hexaflex” model of psychological flexibility

## Application of ACT with LTCs

As stated above, individuals vary in how they respond to their LTC with regard to personal coping resources, adherence and lifestyle changes. In many cases, the distress or discomfort experienced is very real. Individuals may hold cognitions such as, “I cannot do the things I used to, therefore, I am a burden to my family”. ACT does not try to change the content of these thoughts, instead it invites the person to step back and notice them, whilst taking action to pursue valued activities (Hayes et al., 2012). They are directed towards what can be attained, so to build up adaptive resources, rather than ruminating on what cannot be changed. For instance, someone with epilepsy would be encouraged to engage in social activities, whilst being willing to accept the risk of embarrassment if they were to have a seizure in public (Hayes & Strosahl, 2010). ACT’s usefulness in helping people to reengage with life, means it is used increasingly with LTCs (McCracken & Vowles, 2014; Dindo, 2015).

## Empirical evidence for ACT with LTCs

The evidence base for ACT consists of meta-analyses and systematic and narrative reviews, with the number of publications increasing each year. Initial research has documented ACT’s transdiagnostic potential, reporting its efficacy across both mental and physical health conditions (Hayes et al., 2006; Ruiz, 2010). A recent review found ACT improved outcomes including, disease self-management, distress reduction and QoL for a range of LTCs (Graham, Gouick, Krahé, & Gillanders, 2016). However, Ost (2014) and Graham et al. (2016) have critically appraised the quality of evidence, calling for a number of methodological issues to be addressed. Some key limitations relate to the design of the studies, with treatment conditions not matched, therapist effects not controlled for, a lack of power analysis and no long-term follow up. These limitations may account for why whilst ACT out performs waiting list controls, it is currently not superior to established therapies, such as, CBT (Powers, Vording, & Emmelkamp, 2009; A-Tjak et al., 2015). Therefore, although ACT is proven to be effective, methodological issues need to be addressed to develop the evidence base.

## Hypothesised mechanisms of change

An area of research ACT places a high emphasis on, is understanding more about the process by which therapeutic change occurs (Ruiz, 2010). This is important in the delivery of effective treatments and to maximising therapeutic effects (Kazdin, 2007). To take the model and evidence base forward, more needs to be understood about which processes effect the greatest change in ACT (Atkins et al., 2017). In order to establish a particular variable as a process or mechanism of change, it must be demonstrated consistently by more than one study (Kazdin, 2007). One way of examining this is through testing mediators. Mediation analysis can help to establish the pathways underlying therapeutic change (MacKinnon, Fairchild, & Fritz, 2007). For instance, if ACT appears to improve the QoL of cancer patients, a mediation analysis would evaluate how this change occurred.

## The current review

Experimental and cross-sectional studies within the ACT literature have frequently tested mediators alongside primary and secondary outcomes (Hayes et al., 2006). However, to date there are no known reviews of mediation studies evaluating the mechanisms of ACT for LTCs. A recent systematic review by Graham et al. (2016) of ACT for LTCs, evaluated statistical outcomes, but not mediators. Therefore, there is a need for a review of mediators of ACT for LTCs.

Kazdin (2007) states that a good mediation study should include an intervention and control group, in order to measure the effects of the treatment. Therefore, this review only includes studies where an ACT intervention was delivered, based on randomised controlled trails (RCTs). The aim of the review is to provide a narrative summary of the mediators underlying ACT for LTCs, based on a systematic search. The quality and strength of the studies were evaluated, with the findings synthesised and grouped by each mediator.

## Method

### Literature search

A systematic search of the literature was carried out to find mediation studies of ACT for LTCs. Electronic databases searched included PsychINFO (psychological), Medline (biomedical), ASSIA (social science), CINAHL (nursing) and Web of Science. The main search was conducted on 20th July 2017 and updated on 12th October 2017. A restricted date range was not implemented, to broaden scope of the papers found.

The following search terms and Boolean operators were used:
“Acceptance and commitment therapy” OR “ACT” OR “acceptance based”
AND
“Long term conditions” OR “chronic disease” OR “physical health” OR “medical conditions”

“Acceptance and commitment therapy”, “ACT” or “acceptance based” were then searched alongside each individual physical health condition. There was not a definitive list of LTCs (DoH, 2012). However, the National Health Service (20th July 2017) had published what they classified as a LTC. This was drawn on and included “diabetes”, cardiovascular (“hypertension” OR “angina”), respiratory (“asthma” OR “chronic obstructive pulmonary disease”), neurological (“multiple sclerosis” OR “epilepsy”), chronic pain (“arthritis”) and other long-term conditions (“cancer” OR “obesity” OR “tinnitus”). This was in line with other papers looking at ACT for LTCs, so was deemed both valid and comprehensive (Prevedini, Presti, Rabitti, Miselli, & Moderato, 2011; Dindo, 2015; Graham et al., 2016).

The term ‘mediation’ was not used for the purpose of not limiting the range of papers found. The titles and abstracts of the identified literature were then screened against the criteria below. In cases where it was unclear whether the criteria for inclusion were met, the full text was retrieved and reviewed. For some studies the mediation data was embedded within the paper and not stated in the abstract.

### Inclusion and exclusion criteria

To be included studies had to (1) include an ACT intervention delivered to people with LTCs (2) be an RCT or experimental design (3) test hypothesised mechanisms of ACT as the mediator (4) use a well-established method of mediation analysis (5) to be published in a peer reviewed journal, in English and (6) include only adult participants.

The exclusion criteria were as follows (1) conditions where biological pathology is unclear (e.g. irritable bowel syndrome, chronic fatigue syndrome) (2) longitudinal designs where no control group was used (3) or cross-sectional studies where an ACT intervention is not delivered.

Reference lists were searched and Google Scholar was used to find any additional papers that had been cited. Figure 2 presents a PRISMA flow diagram to show how the review was conducted.

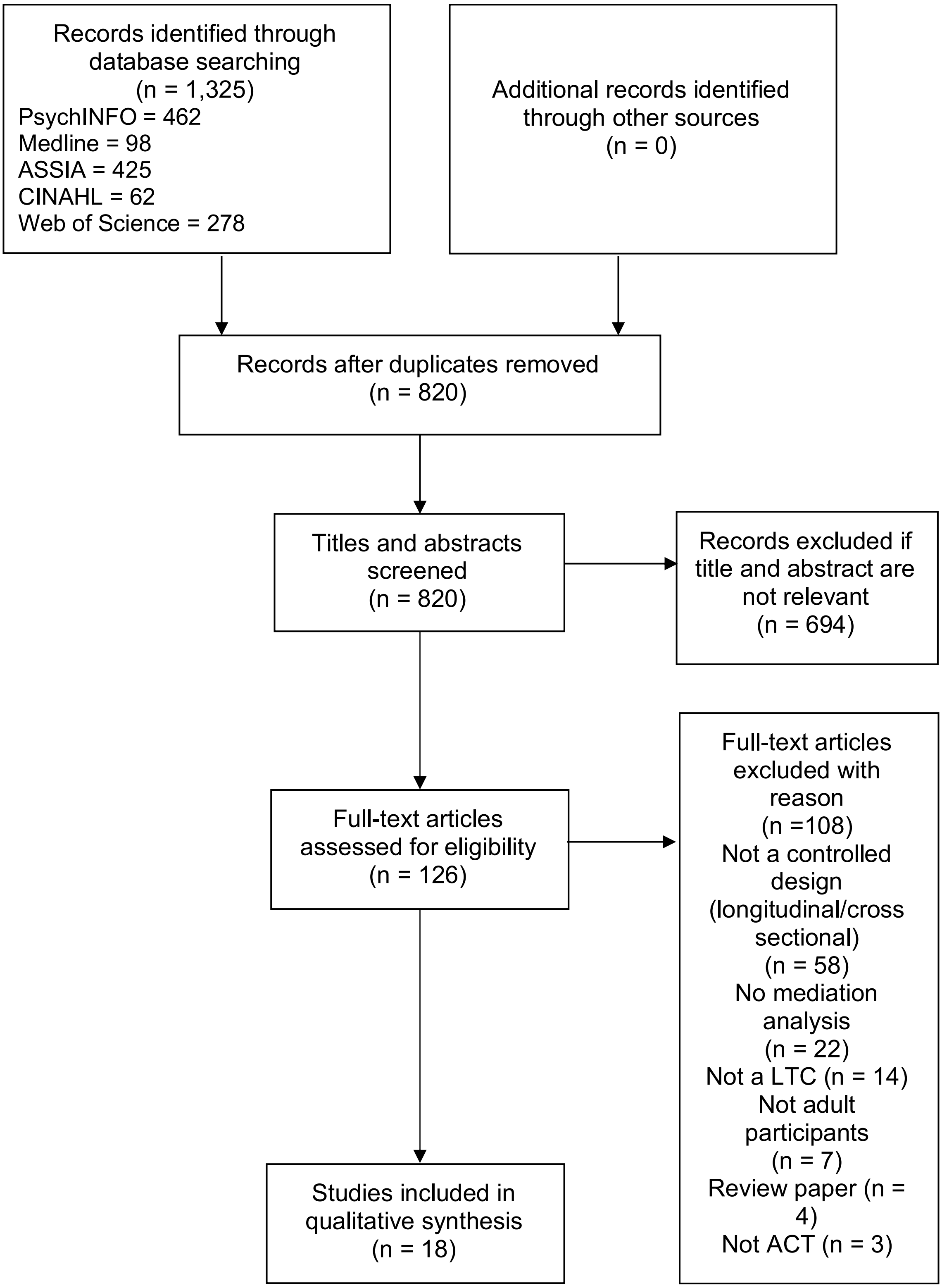

*Figure 2:* PRIMA flow diagram

**Quality assessment**

Studies that met the inclusion criteria were assessed for the quality of the methodology and mediation analysis. A framework from a systematic review evaluating mediation studies for mindfulness-based intentions was used (Gu, Strauss, Bond, & Cavanagh, 2015). This adapted appraisal framework was informed by both RCT checklists (Schulz, Altmman, & Moher, 2010; Jadad et al., 1996) and mediation design requirements (Kazdin, 2007; Lubans, Foster, & Biddle, 2008) and therefore offered an inclusive means to evaluate the studies in this review.

For each of the 16 questions, a score of ‘0’ was given for ‘no’ and ‘1’ for ‘yes’ (Table 3 and Table 4). With regard to RCTs these questions covered areas such as, how participants were randomised, power calculations, characteristics of control group, blind assignment and participant flow. For mediation, the framework evaluated when the mediator was measured, psychometric properties of the mediator variable, the dose of intervention and method of analysis. If information was missing from the paper but embedded within the original report or another cited source, then this paper was consulted. However, if the information was not available from the reference cited a score of ‘0’ was assigned. In line with Gu et al. (2015) studies scoring 0-5 were classed as low quality, 6-11 moderate quality and 12-16 high quality.

All of the studies were quality assessed by the author (HS) on the basis of the quality framework. To ensure the accuracy and consistency of the author’s ratings the methodological quality of a proportion of the selected studies (six papers) were scored independently by a second reviewer (FJ). To evaluate the degree of agreement between the two reviewers, Cohen’s Kappa was calculated (Hallgren, 2012). The agreement between the two reviewers (*K* = 0.78) represented a substantial level of inter-rater agreement (Landis & Koch, 1977). Discrepancies were discussed and the author made any necessary changes to the ratings.

In addition, to synthesise the quality scores, a best evidence synthesis rating system (BESRS) was applied (Gu et al., 2015; Singh, Mulder, Twisk, van Mechelen, & Chinapaw, 2008; van Stralen et al., 2011). Conclusions drawn about the mediators of ACT were based on quality and consistency as indicated by three levels of evidence. If two or more high quality studies had the same finding, the evidence was strong. Moderate evidence came from a reliable finding in one high quality and one low quality study, or the finding was consistent across multiple low quality studies. The evidence was insufficient if only one study was available or inconsistent findings were found for two or more studies.

# Results

## Study characteristics and flow

From the studies identified, 18 met the inclusion criteria (Figure 2). Most studies were excluded due to not having a control group or their use of a cross sectional design. The reviewed studies are summarised in Table 2. Of these, all 18 were RCTs. They all compared ACT to an active control group (n=12) or non-active control group (n=6) and employed a form of ACT intervention, which included self-help (n=4), individual therapy (n=2), one day workshops (n=2) and groups (n=10). Samples ranged from 22 to 410 participants. Predominantly studies were conducted in western countries (Sweden, The Netherlands, United States of America (USA), Australia, Spain), with one exception, South Africa. None were conducted in the UK, while the USA contributed the most research (n=9), followed by Sweden (n=6).

Adults in the studies all had a diagnosis of a LTC. The samples included; chronic pain (n=7), obesity (n=5), tinnitus (n=2), cancer (n=2), diabetes (n=1) and epilepsy (n=1). Given the range of LTCs the primary outcomes varied. Most studies measured more than one outcome but identified the primary outcomes which the mediator(s) were tested on. These included, QoL (n=6), impact of pain (n=6), weight loss (n=4), physical functioning (n=2), tinnitus distress (n=2), weight related distress (n=2), cancer related distress (n=1) blood glucose (n=1) and seizures per month (n=1). With regard to mental health outcomes, depression and anxiety (n=9) were the only ones assessed.

*Table 2:* Characteristics of studies included

| Study | Participants | LTC | Intervention | Control | Tested mediators | Findings |
|---|---|---|---|---|---|---|
| Cederberg, Cernvall, Dahl, von Essen, & Ljungman (2016) | *N = 90* (36% male, 64% female)<br>(Sweden) | Chronic pain | ACT<br>Manualised self-help with weekly telephone support<br>7 weeks | Applied relaxation<br>Manualised self-help with weekly telephone support<br>7 weeks | Acceptance<br>(CPAQ) | - Acceptance mediated change in physical functioning (OMPQ), but no effect on satisfaction with life (SWLS), anxiety or depression (HADS)<br>- Change in physical functioning is ascribed to higher levels of acceptance rather than lower levels of pain<br>- Anxiety and depression did not mediate changes in physical functioning |
| Forman et al. (2013) | *N = 128* (gender not specified)<br>(USA) | Obesity | Acceptance based behavioural program (ABT)<br>Group 30 (75 min) sessions | Standard behavioural treatment (SBT)<br>Group 30 (75 min) sessions | Acceptance<br>(FAAQ) | - No evidence of psychological acceptance as a mediator was found on the primary outcome of weight loss<br>- However, when moderators were added (depression, emotional eating, disinhibition) acceptance mediated those high in emotional eating |
| Forman et al. (2016) | *N = 190* (82% female, 18% male)<br>(USA) | Obesity | Acceptance based behavioural program (ABT)<br>Group 25 (75 min) sessions | Standard behavioural treatment (SBT)<br>Group 25 (75 min) sessions | Acceptance<br>(FAAQ) | - Superior effects of ABT (13% weight loss) over SBT (9% weight loss). This was found to be mediated by psychological acceptance of food related urges and cravings and autonomous motivation (TSRQ) |
| Gregg, Callaghan, Hayes, & Glenn-Lawson (2007) | *N = 81* (48% female, 52% male)<br>(USA) | Diabetes | ACT and Education<br>One day workshop | Education alone<br>One day workshop | Psychological flexibility<br>(AADQ) | - Changes in blood glucose (HbA1c, primary outcome) were mediated by changes in self-management (exercise, diet, glucose) and diabetes related acceptance<br>- Provides support for acceptance, mindfulness and values-based approach |

| | | | | | | |
|---|---|---|---|---|---|---|
| Hawkes, Pakenham, Chambers, Patroa, & Courneya (2014) | *N = 410* (54% male, 46% female)<br>(Australia) | Cancer | ACT health coaching – 11 telephone health coaching sessions | Usual care – 4 educational brochures and quarterly newsletter | Psychological flexibility<br>(AAQ-II) | - Intervention effects were significant for posttraumatic growth (PGI), spirituality (FACIT-Sq) and QoL (FACT-C)<br>- Intervention effects were mediated by psychological flexibility<br>- Both groups reported significant increases in mindfulness<br>- Intervention effects for psychological flexibility at 6 months but not at 12 months |
| Hesser, Westin, & Andersson (2014) | *N = 99* (43% female, 57% male)<br>(Sweden) | Tinnitus | Internet delivered ACT<br>Guided self-help - 8 weeks | Internet delivered CBT<br>Guided self-help - 8 weeks<br>Internet forum (control) | Acceptance<br>(TAQ-supress)<br>Valued activity engagement<br>(TAQ-Activity) | - Low suppression of thoughts and feelings towards tinnitus (THI) mediated the ACT condition only, however this did not reach conventional level of significance (0.05)<br>- Activity engagement in valued activities significantly mediated treatment changes across both conditions |
| Kemani, Hesser, Olsson, Lekander, & Wicksell (2016) | *N = 44* (all female)<br>(Sweden) | Chronic Pain | ACT<br>Group sessions (90 mins) 12 weeks | Applied relaxation<br>Group sessions (90 mins) 12 weeks | Psychological flexibility<br>(PIPS) | - Changes in psychological flexibility mediated reductions in pain interference (PII) for ACT but not AR<br>- Catastrophizing (CSQ) and pain intensity did into mediate improvements for either ACT or AR |
| Lillis, Hayes, Bunting, & Masuda (2009) | *N = 87* (90% female, 10% male)<br>(USA) | Obesity | ACT<br>One day workshop | Waiting List control (WL) | Psychological flexibility<br>(AAQ, AAQW) | - Changes in weight specific ACT processes mediated all outcomes, of weight (BMI), distress (GHQ), QoL (ORWELL) and stigma (WSQ)<br>- General ACT processes mediated all outcomes apart from weight<br>- Intervention group showed greater psychological flexibility |

| | | | | | | |
|---|---|---|---|---|---|---|
| Lillis, Thomas, Niemeier, & Wing (2017) | *N = 162* (85% female and 15% male)<br>(USA) | Obesity | Acceptance Based Behavioural Intervention (ABBI)<br>32 group sessions over 12 months | Standard Behavioural Treatment (SBT)<br>32 group sessions over 12 months | Psychological flexibility<br>(AAQW)<br>Values<br>(Bulls Eye) | - ABBI group showed greater improvements in valued behaviour compared to SBT<br>- However, differences in valued behaviour did not mediate weight loss at follow up<br>- No difference in groups with regard to psychological flexibility |
| Luciano et al. (2014) | *N = 156* (50% female and male)<br>(Spain) | Chronic pain (Fibro-myalgia) | Group ACT (GACT)<br>8 (2.5 hour) sessions | Recommended Pharmacological Treatment (RPT)<br>Waiting List Control (WL) | Acceptance<br>(CPAQ) | - No significant differences between GACT and RPT in pain acceptance (CPAQ).<br>- Pain acceptance did not mediate primary outcome (FIQ)<br>- The mediational analysis did not show that changes in pain acceptance mediated secondary outcomes (PCS, HADS, PVAS).<br>- A significant mediational effect of acceptance was only found for QoL (EQ-5D) |
| Lundgren, Dahl, & Hayes (2008) | *N = 27*<br>(South Africa) | Epilepsy | ACT<br>Two individual and two group sessions (9 hours) | Supportive Treatment<br>Two individual and two group sessions (9 hours) | Psychological flexibility<br>(AAEpQ)<br>Values<br>(Bulls Eye) | - ACT processes measures post treatment significantly mediated seizures per month<br>- Values attainment on its own or in combination with psychological flexibility mediated outcomes (SWLS, QoL PWB)<br>- QoL was mediated by valued action and psychological flexibility<br>- No mediation effect for ACT on SWLS<br>- Personal wellbeing was significantly mediated by all ACT processes<br>- Overall, defusion, acceptance and committed action as independent or combined constructs had a mediational role in 3 out of 4 outcome measures |

| | | | | | | |
|---|---|---|---|---|---|---|
| Rost, Wilson, Buchanan, Hildebrandt, & Mutch (2012) | *N = 47* (all female)<br>(USA) | Cancer | ACT<br>12 individual sessions | TAU (relaxation, problem solving and cognitive restructuring)<br>12 individual sessions | Acceptance<br>(COPE) | - ACT treatment group showed greater decreases in psychological distress (POMS) and higher QoL (FACT-C)<br>- Outcomes were significantly mediated by changes in mental disengagement and planning (acceptance)<br>- Acceptance increased over the course of the ACT intervention but little change TAU |
| Trompetter, Bohlmeijer, Fox, & Schreurs (2015) | *N= 238* (75% female, 25% male)<br>(The Netherlands) | Chronic pain | ACT<br>12 weeks internet self help | Expressive Writing<br>Internet based protocol<br>Waiting List Control | Psychological flexibility<br>(PIPS) | - Improvements in pain related psychological flexibility mediated pain interference (MPI), psychological distress (HADS) and pain intensity (NRS)<br>- Only PIPS functioned as a direct and causal mechanism<br>- Including pain catastrophizing strengthen case for psychological flexibility |
| Weinland, Hayes, & Dahl (2012) | *N = 39* (90% female, 10% male)<br>(Sweden) | Obesity | ACT<br>Two individual sessions and self-help for six weeks | TAU (dietary advice) | Psychological flexibility<br>(AAQW)<br>Values<br>(Bulls Eye) | - Weight related psychological flexibility significantly mediated QoL (WHOQoL), body dissatisfaction (BSQ) and marginally disordered eating (EDE-Q)<br>- Increased psychological flexibility appears to be associated with reduced attempts to alter one's body and thus increases QoL |
| Westin et al. (2011) | *N = 64* (47% female, 53% male)<br>(Sweden) | Tinnitus | ACT<br>10 weekly individual sessions | Tinnitus Retraining Therapy (TRT) 2.5 hour consultation<br>Waiting List Control (WL) | Acceptance<br>(TAQ) | - ACT is more effective at reducing tinnitus impact (THI) that TRT or WL<br>- Change in tinnitus impact were mediated by changes in tinnitus acceptance<br>- Results of secondary outcomes also favoured ACT, sleep (ISI), QoL (QOLI), depression and anxiety (HADS) |

| | | | | | | |
|---|---|---|---|---|---|---|
| Wetherell et al. (2011) | *N = 114*<br>(51% female, 49% male) | Chronic pain | ACT<br>8 week group sessions | CBT<br>8 week group sessions | Acceptance<br>(CPAQ) | - Outcomes for ACT and CBT were equivalent for pain interference (BPI)<br>- Control and acceptance did not mediate differences between the treatment modalities<br>- Perceived control over pain rather than acceptance mediated reduced pain. |
| Wicksell, Olsson, & Hayes (2010) | *N* = *22*<br>(83% female, 17% male)<br>(Sweden) | Chronic pain | ACT<br>10 individual sessions | TAU (medication, acupuncture, physiotherapy, osteopathy) | Psychological flexibility<br>(PIPS) | - Psychological flexibility mediated the treatment effects for pain disability (PDI) and life satisfaction (SWLS)<br>- No mediation affects for pain, depression, anxiety, kinesiophobia or self-efficacy on the primary outcomes above |
| Wicksell et al. (2013) | *N* = *40*<br>(all female)<br>(Sweden) | Chronic pain | ACT<br>12 weekly group sessions | Waiting List Control (WL) | Psychological flexibility<br>(PIPS) | - A decrease in psychological inflexibility significantly mediated improvements in pain disability<br>- Changes in psychological inflexibility also mediated FM (FIQ) self-efficacy (SES) depression (BDI) anxiety (STAI) |

CPAQ = Chronic Pain Acceptance Questionnaire; FAAQ = Food Acceptance and Awareness Questionnaire; TSRQ = Treatment Self-Regulation Questionnaire; AADQ = Acceptance and Action Diabetes Questionnaire; AAQ-II = Acceptance and Action Questionnaire; TAQ = Tinnitus Acceptance Questionnaire; PIPS = Psychological Inflexibility in Pain Scale; CSQ = Coping Strategies Questionnaire; AAQW = Acceptance and Action Questionnaire for Weight; The Bulls Eye = Values Attainment; AAEpQ = Acceptance and Action Epilepsy Questionnaire; COPE = Mental disengagement subscale; OMPQ = Orebro Musculoskeletal Pain Questionnaire; SWLS = Satisfaction with Life Scale; HADS = Hospital Anxiety and Depression Scale; PGI = Posttraumatic Growth Inventory; FACIT-Sq = Functional Assessment of Chronic Illness Therapy – Spiritual Wellbeing; FACT-C = Functional Assessment of Cancer Therapy-Colorectal; THI = Tinnitus Handicap Inventory; PII = Pain Interference Index; GHQ = General Health Questionnaire; ORWELL = Obesity Related Quality of Life; WSQ= Weight Stigma Questionnaire; FIQ = Fibromyalgia Impact Questionnaire; PCS = Pain Catastrophizing Scale; PVAS = Pain Visual Analog Scale; EQ-5D = Health Related Quality of Life; WHOQoL = World Health Organization quality of Life; PWI = Personal Wellbeing Index; POMS = Profile of Mood States; NRS = Numeric Rating Scale; MPI = Multidimensional Pain Inventory; EDE-Q = Eating Disorder Examination Questionnaire; BSQ = Body Shape Questionnaire; BPI = Brief Pain Inventory; ISI = Insomnia Severity Index; QOLI = Quality of Life Inventory; PDI = Pain Disability Index; SES = Self Efficacy Scale; BDI = Becks Depression inventory; STAI = Spielberger Trait State Anxiety Inventory.

## Mediation analysis

Mediation analysis can be used in research to test if an intervention works through the hypothesised mechanisms of action (MacKinnon, Lockwood, Hoffman, West, & Sheets, 2002). For instance, with the ACT model mediation analysis could evaluate if one or all of the six core processes (Table 1) effect treatment outcome. Put simply, mediation analysis works by investigating the indirect effect of the intervention variable (X) on the outcome variable (Y), via the added mediator variable (M). The relationship can therefore be explained as, X causes M and M causes Y (Figure 3; MacKinnon et al., 2007). The pathway leading from X to Y is known as the direct path. For ACT, this could be explained as an ACT group (X) leads to changes in acceptance (M) which improves QoL (Y). There are a number of ways to test for mediation, including regression-based tests, structural equation modelling, and bootstrapping (Fritz & MacKinnon, 2007). Overall, bootstrapping is regarded to have more statistical power and accurate Type I error rates than other methods (MacKinnon et al., 2002).

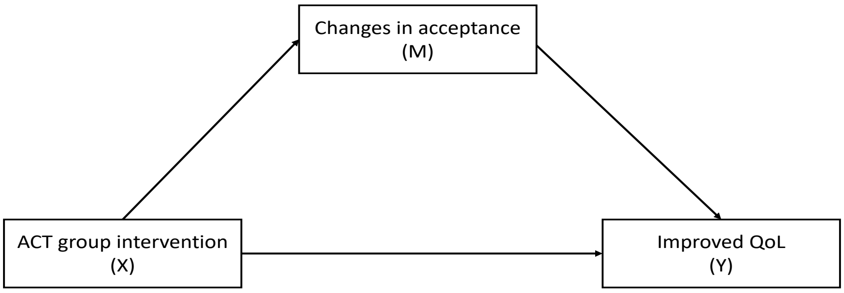

*Figure 3:* Simple mediation model

To assume that M causally influences Y, the mediator must have changed before the outcome (MacKinnon et al., 2007). Kazdin (2007) states this can be achieved by creating timeline, measuring mediation prior to outcome and during treatment delivery.

Other mediation design requirements, comprise of a strong theoretical association between the intervention and mediator variable, experimental manipulation (e.g. RCT) and clarity around dose of intervention (Kazdin, 2007).

### Randomised controlled trials

All of the studies were RCTs, which is regarded as one of the most robust methods for measuring mediation analysis (Kazdin, 2007). When designed well the researcher can isolate the variable they are studying, so to accurately estimate its effect (Kahan, Rehal, & Cro, 2015). However, if an RCT is not delivered well it carries a risk of bias, which can lead to inaccurate inferences, resulting in misleading conclusions (Akobeng, 2005). The Cochrane risk of bias tool sets out how to assess the quality of an RCT designs (Higgins et al., 2011). To reduce the risk of bias attention must be given to allocation concealment, random sequence generation, accurate reporting of the results, blinding of participants and attrition (Higgins et al., 2011).

### Quality of the studies reviewed

In order to evaluate the quality of the studies, the design and mediation analysis were both assessed (Table 3 and Table 4). Overall, ten studies were classified as moderate quality and eight met the criteria for high quality (Gu et al., 2015). Bootstrapping analysis was used to test mediation in 17 out of 18 studies reviewed, therefore, mediation methods generally reflected best practice (Fritz & MacKinnon, 2007). Also, all of the studies were underpinned by a theoretical framework, laying the foundations for why certain mediating variables were tested (Kazdin, 2007). However, none of the studies calculated power to test mediation (Fritz & MacKinnon, 2007) and less than half (n=8) demonstrated a timeline, by testing mediation during the treatment delivery.

Therefore, it was not possible to evaluate if changes in the mediator occurred before changes in outcome (MacKinnon et al.,2002). Only five studies analysed the data from only those who received an adequate dose of ACT, established as 50% of sessions based on the existing literature (Smout, Hayes, Atkins, Klausen, & Duguid, 2012).

To draw reliable conclusions in this review, the potential design limitations of the RCTs were considered. The majority of studies described the process by which participants had been randomised to conditions (n=17) and included details about attrition (n=18), therefore, selection and attrition bias were considered to be low (Higgins et al., 2011). However, fewer studies explicitly stated whether or not participants, researchers or assessors were blind to treatment assignment (n=9). This may reflect poor reporting, but if blinding had not occurred it may influence the researcher’s judgement and their interpretation of the results (Akobeng, 2005). Only a third of studies reported a power calculation. It is important that RCTs are adequately powered, to reduce the risk of a Type II error occurring, which is when no difference between the groups is established in spite of one (Banerjee, Chitnis, Jadhav, Bhawalkar, & Chaudhury, 2009). Also, participants were followed up for between 3 to 18 months, which in some cases limits conclusions regarding the longer-term impact of ACT (Akobeng, 2005).

*Table 3:* Quality checklist scores for RCTs measuring acceptance

| Quality criteria | Cederberg *et al.* (2016) | Forman *et al.* (2013) | Forman *et al.* (2016) | Hesser *et al.* (2014) | Luciano *et al.* (2014) | Rost et al. (2012) | Westin et al. (2011) | Wetherell *et al.* (2011) |
|---|---|---|---|---|---|---|---|---|
| 1) Did the study cite a theoretical framework? | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| 2) Were the psychometric characteristics of the mediator variable(s) tested within the study and within accepted ranges (e.g. Cronbach's alpha/test-retest reliability > .7)? | No | No | No | Yes | No | No | Yes | Yes |
| 3) Were the psychometric characteristics of the outcome variable(s) tested within the study and within accepted ranges (e.g. Cronbach's alpha/test-retest reliability > .7)? | No | No | No | Yes | No | No | No | Yes |
| 4) Did the study report a power calculation and was the study adequately powered to detect mediation? | No | No | Yes | No | No | No | Yes | No |
| 5) Did the study have an active control group? | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| 6) Was the study described as randomised? | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| 7) Was the method used to generate the sequence of randomisation described and appropriate (table of random numbers, computer-generated, etc)? | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| 8) Did it state that participants, researchers or data evaluators blind to treatment assignment? | No | No | No | Yes | Yes | No | Yes | Yes |
| 9) Was information about participant flow provided | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| 10) Did the study report the experience/qualifications of the facilitator(s)? | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| 11) Was change in the proposed mediator(s) used in mediation analysis measured before the outcome? | No | No | No | No | No | No | No | No |
| 12) Was change in the proposed mediator(s) used in mediation analysis measured during treatment? | No | Yes | Yes | No | No | Yes | Yes | No |
| 13) Did the study report the proportion of participants in the intervention condition who received an adequate dose of the ACT (> 4 out of 8 sessions)? | Yes | Yes | Yes | Yes | Yes | No | Yes | Yes |
| 14) Was mediation analysis carried out using only the participants who received an adequate dose of the ACT? | No | Yes | Yes | No | No | No | No | Yes |
| 15) Was post-intervention outcome controlled for baseline outcome? | Yes | Yes | Yes | Yes | Yes | Yes | No | Yes |
| 16) Was the most appropriate method of mediation analysis used given the study design and recommendations? | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Quality score (/16) | 9 | 11 | 12 | 12 | 10 | 9 | 12 | 13 |

*Table 4:* Quality checklist scores for RCTs measuring psychological flexibility

| Quality criteria | Gregg *et al.* (2007) | *Hawkes et al.* (2014) | Kemani *et al.* (2012) | Lillis *et al.* (2009) | Lillis *et al.* (2017) | Lundgren et al. (2008) | Trompetter *et al.* (2015) | Weinland *et al.* (2012) | Wicksell *et al.* (2010) | Wicksell *et al.* (2013) |
|---|---|---|---|---|---|---|---|---|---|---|
| 1) Did the study cite a theoretical framework? | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| 2) Were the psychometric characteristics of the mediator variable(s) tested within the study and within accepted ranges (e.g. Cronbach's alpha/test-retest reliability > .7)? | Yes | No | Yes | Yes | No | Yes | Yes | Yes | Yes | No |
| 3) Were the psychometric characteristics of the outcome variable(s) tested within the study and within accepted ranges (e.g. Cronbach's alpha/test-retest reliability > .7)? | No | Yes | Yes | No | No | No | Yes | Yes | No | No |
| 4) Did the study report a power calculation to determine sample size and was the study adequately powered to detect mediation? | Yes | Yes | Yes | Yes | No | No | Yes | No | No | No |
| 5) Did the study have an active control group? | Yes | No | Yes | No | Yes | Yes | Yes | No | No | No |
| 6) Was the study described as randomised? | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| 7) Was the method used to generate the sequence of randomisation described and appropriate (table of random numbers, computer-generated, etc)? | Yes | Yes | Yes | Yes | Yes | Yes | Yes | No | Yes | Yes |

| | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| 8) Did it state that participants, researchers or data evaluators blind to treatment assignment? | Yes | Yes | No | Yes | Yes | No | No | No | No | Yes |
| 9) Was information about participant flow provided | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| 10) Did the study report the experience/qualifications of the facilitator(s)? | Yes | Yes | Yes | Yes | Yes | Yes | Yes | No | Yes | Yes |
| 11) Was change in the proposed mediator(s) used in mediation analysis measured before the outcome? | No | No | No | No | No | Yes | No | No | No | No |
| 12) Was change in the proposed mediator(s) used in mediation analysis measured during treatment? | No | No | Yes | No | Yes | No | Yes | No | No | No |
| 13) Did the study report the proportion of participants in the intervention condition who received an adequate dose of the ACT (> 4 out of 8 sessions)? | Yes | Yes | No | Yes | Yes | No | Yes | Yes | Yes | Yes |
| 14) Was mediation analysis carried out using only the participants who received an adequate dose of the ACT? | No | Yes | No | Yes | No | No | No | No | No | No |
| 15) Was post-intervention outcome controlled for baseline outcome? | Yes | Yes | No | Yes | Yes | No | Yes | Yes | Yes | No |
| 16) Was the most appropriate method of mediation analysis used given the study design and recommendations? | Yes | Yes | No | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Quality score (/16) | 12 | 12 | 10 | 12 | 11 | 9 | 13 | 8 | 9 | 8 |

## Tested mediators of ACT

The mediators examined in the studies reflected the hypothesised core processes of ACT, most commonly acceptance (n=8), values (n=3) and mindfulness (n=1), as well as, the broader concept of psychological flexibility (n=10). None of the studies evaluated defusion, self-as-context or committed action. All of the mediators were assessed using self-report outcome measures. However, the measure used varied depending on the part of the ACT model and health condition of most interest.

## Summaries of each mediator

The mediators examined by the studies and their measurement were considered together with the findings for each mediator. This section reports on the BESRS in order to summarise how consistent the findings were across the literature.

### Acceptance

Acceptance is a willingness to embrace unwanted private experiences, without trying to change or alter them, for the purpose of engaging in valued living (Hayes et al., 2012). Of the eight studies evaluating acceptance, some explored its mediating effect, whereas others hypothesised with more certainty that it would mediate positive outcomes. The clinical samples included a range of conditions, namely, chronic pain (Cederberg, Cernvall, Dahl, von Essen, & Ljungman, 2016; Luciano et al., 2014; Wetherell et al., 2011), obesity (Forman et al., 2013; Forman et al., 2016), tinnitus (Hesser, Westin, & Andersson, 2014; Westin et al., 2011) and cancer (Rost, Wilson, Buchanan, Hildebrandt, & Mutch, 2012).

### Psychometric measures used to test acceptance

Across the studies acceptance was measured by a range of psychometric scales. The Chronic Pain Acceptance Questionnaire (CPAQ; McCracken, Vowles, & Eccleston, 2004), utilised in three studies, is a 20-item questionnaire quantifying acceptance of pain. The two subscales (activity engagement and pain willingness) have good internal consistency (0.78 and 0.82) and validity has been demonstrated with regard to predictions of pain disability and distress (McCracken et al., 2004). The validity of the CPAQ was verified with an internet sample of mixed chronic pain (Fish, McGuire, Hogan, Morrison, & Stewart, 2010). The Food Acceptance and Awareness Questionnaire (FAAQ; Juarascio, Forman, Timko, Butryn, & Goodwin, 2011) measures acceptance of food related urges in relation to problematic eating. This 10-item questionnaire, used in two studies, was validated on clinical (29 obese women) and normative samples (204 community and 705 undergraduate students). Juarascio at al., (2011) found it had adequate reliability (0.66-0.68) and validity. The Tinnitus Acceptance Questionnaire (TAQ; Westin, Hayes, & Andersson, 2008) was utilised in two studies to measure psychological acceptance as construct within this population. This 12-item questionnaire has an internal consistency of 0.89 (Westin et al., 2008) and has been validated on a large internet sample (Weise, Kleinstäuber, Hesser, Westin, & Andersson, 2013). One study used the acceptance subscale from the COPE which has an internal consistency of 0.65 (Carver, Scheier, & Weintraub, 1989).

### Studies finding a mediating effect of acceptance

Two high quality studies (Westin et al., 2011; Forman et al., 2016) and one moderate quality study (Rost et al., 2012) supported acceptance as a mediator on outcomes of illness related distress (tinnitus and cancer) and weight loss. Westin et al. (2011) found tinnitus related acceptance significantly mediated tinnitus distress at the mid-point of the 10-week intervention, which was maintained at 18 months follow up. ACT research places an emphasis on the specific mediators driving outcome (Hayes et al., 2006). However, a specific mediator was not identified for the comparison condition, presenting a bias in the study's design. Similarly, Rost et al. (2012) used mid-point outcome measurements, which supported the hypothesis that higher levels of acceptance mediated lower levels of psychological distress and improved QoL, despite deteriorating health. Interestingly, these were the only two studies of those reviewing acceptance to offer ACT through individual sessions. Subsequently, the delivery of treatment modality, could be key to these findings. However, neither study controlled for individual therapist effects, with regard to unequal therapist contact (Westin et al., 2011) and the use of only one therapist across conditions (Rost et al., 2012). The implication being that conditions were not treated equally, so the treatment variable was not isolated. Also, only Westin et al. (2011) carried out treatment fidelity checks, therefore the quality of ACT therapy for Rost et al. (2012) was not assessed.

The results from Forman et al. (2016) further supported the mediating role of psychological acceptance. This was specific to food related urges on weight loss. Session by session analysis indicated the ACT condition was advantageous over standard behavioural treatment (SBT) at week 16 of a 25-week treatment. This was in contrast to an earlier trial (Forman et al., 2013) which did not find evidence for the mediating role of acceptance. Forman et al. (2016) addressed a number of limitations from the first study (Forman et al., 2013) which may account for this difference in findings. The treatment protocol was amended to focus more on acceptance, the number of sessions reduced from 40 to 25 and only experienced clinicians used as facilitators, excluding students. Therefore, changes to treatment focus, length and facilitation, may explain the superior effect of ACT over SBT, mediated by acceptance.

**Studies with mixed findings for acceptance**

Two moderate quality studies (Cederberg et al., 2016; Luciano et al., 2014) and one high quality study (Hesser et al., 2014) found acceptance mediated some but not all outcomes, therefore, support was tentative. Cederberg et al. (2016) established that acceptance mediated physical functioning with regard to pain, but not QoL when ACT was delivered through internet self-help. Anxiety and depression were added as mediators but did not influence outcomes, making the meditating role of acceptance more plausible (Kazdin, 2007). However, high rates of attrition limited these findings. Luciano et al. (2014) found acceptance mediated QoL but not pain. A shortcoming, was that the comparative treatment condition was not matched. The findings from these studies may show that it is uncommon for a single mediator to completely account for the relationship between the intervention and outcome variable, especially in therapies as complex as ACT (Luciano et al., 2014). Hesser et al. (2014) found acceptance only marginally mediated a reduction in tinnitus distress in the ACT condition compared to CBT, but this did not reach conventional levels of significance (0.05). Furthermore, as this was self-help it was difficult to evaluate how much participants engaged with ACT.

When reviewing the quality of these studies, none measured the mediator before or during treatment, therefore it is possible that the outcome variable mediates changes in acceptance, so conclusions about causality cannot be made. Also, mediation analysis was not carried out on all participants, even if they dropped out. Therefore, these findings may reflect participants having not received enough of a dose of ACT to change clinical outcomes (Kazdin, 2007).

### Studies failing to find a mediating effect of acceptance

One high quality (Wetherell et al., 2011) and one moderate quality study (Forman et al., 2013) found acceptance did not mediate clinical outcomes. Wetherell et al. (2011) hypothesised that acceptance of pain would mediate treatment outcomes in the ACT condition and perceived pain control would mediate outcomes for CBT. Contrary to this, perceived pain control mediated pain interference across both conditions. Forman et al. (2013) found that acceptance did not mediate weight loss. This study outlined a number of limitations, which were addressed in a later trial (Forman et al., 2016). Both were group interventions and similarly found participants rated the ACT intervention more satisfactorily. Furthermore, this may support the tentative suggestion that treatment modality may implicate strength of findings. Finally, neither study was adequately powered, due to small sample sizes, presenting the possibility that a Type II error occurred (Banerjee et al., 2009) in which no differences between the groups were reported, when differences existed.

### Summary and BESRS for acceptance

Overall, findings were insufficient in their support for acceptance as a mediator. Two high and one moderate quality study supported the mediating role of acceptance. Mixed results came from one high and two moderate quality studies. No evidence of mediation came from one high and one moderate quality study. Therefore, in accordance with the BESRS, there was not a consistent finding across studies, so the role of acceptance was inconclusive (Gu et al., 2015). Inconsistencies could be explained by the format in which the therapy was delivered, therapist allegiance, treatment fidelity and active controls not always been matched. Also, none of the studies were adequately powered to detect a small mediation effect, as this requires a sample size of <500 participants (Fritz & MacKinnon, 2007). The results may also reflect the focus on acceptance alone, with no consideration for the other five constructs in the ACT model. A single mediator may not be able to account for all of the change between variables. The case for acceptance was, however, strengthened when additional mediators (anxiety and depression) were included in the analysis.

Future studies need to address a number of methodological limitations, which have previously been outlined in the literature (Ost, 2014; Graham et al., 2016) to determine more conclusively the mediating role of acceptance in LTCs. In half of studies blind treatment assignment was not used, which presents a significant risk of bias (Akobeng, 2005). Interventions should include a least two therapists to control for the effect of the clinician and studies should be adequately powered by increasing sample sizes (Graham et al., 2016). Also, the mediator variable was rarely measured before the outcome variable; therefore, a bidirectional relationship may exist in which the outcome variable changes the mediator variable (Kazdin, 2007).

### Psychological flexibility

Psychological flexibility is the process of being fully present and accepting illness symptoms, whilst committing to change behaviour to be more congruent with values (Hayes et al., 2012). Psychological flexibility was assessed as a mediator across ten studies. Clinical samples included a range of LTCs, namely, diabetes (Gregg, Callaghan, Hayes, & Glenn-Lawson, 2007), cancer (Hawkes, Pakenham, Chambers, Patroa, & Courneya, 2014), chronic pain (Kemani, Hesser, Olsson, Lekander, & Wicksell, 2016; Trompetter, Bohlmeijer, Fox, & Schreurs, 2015; Wicksell, Olsson, & Hayes, 2010; Wicksell et al., 2013), obesity (Lillis, Hayes, Bunting, & Masuda 2009; Weinland, Hayes, & Dahl, 2012; Lillis, Thomas, Niemeier, & Wing, 2017) and epilepsy (Lundgren, Dahl, & Hayes, 2008). Psychological flexibility was the main mediator, however, values were explored in three studies.

## Psychometric measures used to test psychological flexibility

The most widely used psychometric measure in ACT is Acceptance and Action Questionnaire (AAQ; Hayes et al., 2004), developed to assess psychological flexibility. The original version was revised to improve psychometric consistency and the AAQ-II was formed (Bond et al., 2011). This self-report questionnaire has good validity and reliability (0.78-0.88). In the studies reviewed one used the AAQ and one used the AAQ-II. However, the majority used variations of the AAQ, adapted to the target population (Bond et al., 2011). The Acceptance and Action Diabetes Questionnaire (AADQ; Gregg et al., 2007) is an 11-item questionnaire measuring ACT processes towards diabetes, with excellent reliability 0.94. The Acceptance and Action Epilepsy Questionnaire (AAEpQ; Lundgren et al., 2008) is an eight item, seven-point Likert scale. Cronbach's alpha for this modified version was in the accepted range of 0.76. Also, the Acceptance and Action Questionnaire for Weight-Related Difficulties (AAQ-W), used in three studies is a 22-item measure, targeting ACT processes in relation to weight. A preliminary research trial indicated good internal consistency of 0.88 (Lillis & Hayes, 2008). The Psychological Inflexibility in Pain Scale, was used across four studies. This 12-item questionnaire was examined on a sample of 611 participants with chronic pain, was found to measure key aspects of psychological flexibility, with adequate internal consistency (Wicksell, Lekander, Sorjonen, & Olsson, 2010).

### Studies finding a mediating effect of psychological flexibility

Generally, psychological flexibility was found to mediate a range of psychological and physiological outcomes. This was supported by nine of the ten studies, irrespective of the sample characteristics, comparative treatments or scope of the measures used to test mediation. The length and format of the intervention also did not appear to implicate findings, with ACT delivered through individual sessions (n=2) one day workshops (n=2), group therapy (n=3) and online self-help (n=2).

Four studies were classified as high quality. Gregg et al. (2007) and Lillis et al. (2009) evaluated one-day ACT workshops for diabetes and obesity. Psychological flexibility mediated changes in blood glucose and weight control, respectively. However, treatment fidelity was not assessed in either study. Trompetter et al. (2015) evaluated a nine session ACT guided self-help against expressive writing and waiting list control. Psychological flexibility mediated pain related distress, however, as has been found previously with self-help interventions (Cederberg et al., 2016) attrition was high. Hawkes et al. (2014) evaluated an ACT group for people with cancer. Psychological flexibility significantly mediated outcomes at 6 months but not at 12 months. Surprisingly, mindfulness increased in both conditions, which was thought to reflect people living more in the moment following cancer diagnosis (Hawkes et al., 2014).

Five studies were categorised as having a moderate risk of bias. Both Kemani et al. (2016) and Wicksell et al. (2013) found psychological flexibility mediated pain related distress, based on an ACT group intervention. Kemani et al. (2013) added multiple mediators alongside psychological flexibility (catastrophizing and pain intensity), which consequently did not mediate outcomes. Wicksell et al. (2010) also added additional mediators when evaluating individual ACT sessions for chronic pain, again only significant effects were found for psychological flexibility. Weinland et al. (2012) found weight related psychological flexibility significantly mediated QoL, however, the other treatment condition was not comparable in terms of length, intensity and clinician contact. Lundgren et al. (2008) found psychological flexibility mediated seizure frequency (primary outcome). At one year follow up QoL (secondary outcome) was not mediated by ACT, however, this was a study conducted on a non-western sample, therefore wider cultural factors may have impacted QoL.

### Studies failing to find a mediating effect of psychological flexibility

Lillis et al. (2017) found an ACT group showed more consistent value-based behaviour at 24 months follow up compared to SBT, however, psychological flexibility did not mediate differences in weight loss between these two groups. Treatment fidelity was found to be excellent. However, this study did not report a power calculation to determine sample size, therefore, it may have been underpowered to detect any true differences in outcome between the groups (Akobeng, 2005) so a Type II error may have occurred (Banerjee et al., 2009). This study was limited by a selective sample of mainly females, with high disinhibition, which may account for the discrepant result.

### Summary and BESRS for psychological flexibility

With regard to the BESRS (Gu et al., 2015), four studies were classed as high quality and five categorised as having a moderate risk of bias, therefore there was strong evidence for psychological flexibility as a mediator for LTCs. Support for psychological flexibility was strengthened when additional mediators were included and they did not mediate outcomes, but psychological flexibility did. It is regarded best practice to test several credible mediators, to see if the hypothesised mediator is functionally more important than related concepts (Kazdin, 2007). The absence of any changes in physical symptoms of the illness, supports the notion that psychological flexibility significantly mediated outcomes, as there was no symptom reduction. Therefore, this is consistent with the underlying theoretical assumptions of ACT (Hayes et al., 2006).

There are a number of methodological limitations. For instance, samples were very selective, with three studies consisting of predominantly Caucasian female participants (Lillis et al., 2009; Weinland et al., 2012; Lillis et al., 2017). Half of the studies did not include an active control group, therefore, the treatment groups were not treated equally, a bias in the design. Also, none of the studies were adequately powered to detect a small effect. Furthermore, although there was strong evidence for the mediational role of psychological flexibility, this was correlational and does not prove causation, as the mediator was not measured before outcome (Kazdin, 2007).

### Studies measuring values as mediator and BESRS

Values are qualities of action that guide an individual's behaviour. Values are not things that can be achieved, but offer meaning, purpose and direction in life. The Bull's Eye was used to measure the estimate of values attainment. It has good reliability 0.86 and criterion validity, however, it has not been specifically adapted to suit the needs of the population under study (Lundgren, Dahl, Melin, & Kies, 2006). Three moderate quality studies evaluated the mediating role of values alongside psychological flexibility. Weinland et al. (2012) found values accomplishment across four domains (relationships, work, health and leisure) mediated improved QoL following bariatric surgery. Lundgren et al. (2008) found the same for epilepsy. However, Lillis et al. (2017) found the ACT group showed more values consistent behaviour, but this did not mediate weight loss. This discrepant result, may reflect the sensitivity of measure used, as The Bulls Eye was not adapted to address weight related issues and does not have reliable or valid psychometric properties for this population. Overall, as none of the studies were high quality and the results were not consistent this presents an insufficient BESRS (Gu et al., 2015).

## Discussion

This review's aim was to examine published mediation studies to establish if mechanisms underlying ACT mediate therapeutic outcomes for LTCs. Previously Graham et al. (2016) reviewed outcomes for this population, however meditators were not evaluated. Therefore, this is the first known review of mediation studies of ACT for LTCs. A narrative summary of the evidence was presented, grouped by the psychological constructs measured. Of the 18 studies reviewed, acceptance, values and psychological flexibility were tested as the main mediators of ACT. Mindfulness was assessed in only one study. The findings of each are discussed below.

Strong consistent evidence was found for the broader concept of psychological flexibility as a statistical mediator for ACT on outcomes for LTCs. This incorporates both acceptance and values, alongside four other constructs (defusion, self-as-context, contact with the present moment and committed action). Nine out of ten studies assessed, supported the mediating role of psychological flexibility, across a range of LTCs on outcomes including QoL, illness related distress and functioning. This fits with existing theory that increased psychological flexibility reduces distress and improves QoL (Hayes et al., 2011). Drawing together mediation data for a variety of LTCs provides further support for ACT as a transdiagnostic model (Hayes et al., 2006), with consistency shown for mediation across different studies (Kazdin, 2007).

However, although psychological flexibility appears to mediate outcomes, researchers are still curious as to which processes within the "hexaflex" (Figure 1; Hayes et al., 2012) are more active than others and produce greater change. It would be of interest to further investigate if some LTCs respond better to certain constructs that others.

For instance, this review indicated that weight related issues may be better mediated by acceptance as opposed to values-based attainment.

However, when some of these constructs were measured separately, the evidence for mediation was insufficient. In particular, the evidence for acceptance as a mediator could not be established. Inconclusive results may reflect a number of RCT design limitations, such as, small sample sizes, blinding, therapist allegiance and unmatched active controls (Higgins et al., 2011). When Forman et al. (2016) replicated the findings of an earlier study (Forman et al., 2013) on a larger sample, to address the limitations outlined, a significant result for acceptance as a mediator was found. This indicates that improving the methodical quality of studies and making changes to treatment focus, length and facilitation, may reduce error and yield more consistent findings.

For values an insufficient evidence was found across three studies, which may reflect the sensitivity of the psychometric measure used. The AAQ (Hayes et al., 2004) designed to quantity psychological flexibility is the tool most frequently used to validate the ACT model. Therefore, more significant findings for psychological flexibility as a mediator, may be due to this having a more established method of measurement. When mindfulness was assessed independently, both conditions were comparable, which may echo collective changes for participants following a cancer diagnosis.

### Clinical implications

The findings for the role of acceptance and values was insufficient, though, the majority of studies found they mediated positive effects for at least some clinical outcomes. Therefore, ACT appears to an acceptable psychological intervention for a range of LTCs. One consideration for future clinical practice would be the method of treatment delivery. These findings tentatively support individual therapy as a modality for producing better outcomes, in contrast to group interventions. In practice, group treatments are more cost effective and actively respond to service demand, but a more individualised treatment approach may be required for LTCs, given the multiple challenges people face. These findings also suggest implications for treatment length, as Hawkes et al. (2014) found ACT to effect change at week 16 out of 25 sessions. Alongside the intensity of the intervention, individuals with complex LTCs may need a certain dose of ACT. Future research could address this by measuring outcomes throughout the intervention to yield stronger mediation data, highlighting when treatment changes occur, for more efficient and effective delivery (Kazdin, 2007).

### Limitations and future research

A limitation of the studies reviewed was that they all relied on self-report measures to assess mediation. The advantage of self-report measures is they are standardised, quick and economical. However, they are subject to bias and present several validity problems, as participants may not always be truthful, or understand the terminology of the questions (Barker, Pistrang, & Elliott, 2002; Bond et al., 2011). Furthermore, self-report limits the response that the participant can give, so does not capture the breadth of experience and shifting psychological processes occurring within a contextual behavioural approach (Wolgast, 2014). Therefore, gathering data from qualitative and convergent behavioural measures would help to make self-report less of an issue.

Over half of the studies presented a moderate risk of bias, therefore it is unclear if it was the ACT intervention or other intervening variables accounting for change in outcome. With regard to design, the majority of RCTs included used small sample sizes, increasing the risk of Type II error (Banerjee et al., 2009). Furthermore, these samples were predominately from Western Caucasian backgrounds, therefore, research needs to be conducted on a larger scale and cover wider cultural groups. Treatment follow up was only extended to 18 months in one study (Westin et al., 2011) with some as short as three months, therefore, there was an absence of long-term follow-up. Feliu-Soler et al. (2017) advocate for a minimum follow-up of 12 months.

Further methodological issues related to therapist and treatment effects. The intervention protocols were not standardised across the studies reviewed, so some may have focused less on acceptance, as Foreman et al. (2016) found. Also, less than half measured treatment fidelity and there was limited control over therapist effects, thus, the nature and quality of the interventions may have some bearing on outcomes. Improving treatment fidelity, would help tease out the impact of certain protocols and therapists. Graham et al. (2016) suggested interventions should include at least two therapists, to separate out the effect of the intervention from the therapist.

Psychological flexibility, acceptance and values were frequently assessed at the same time as outcomes, so the temporal order relationship was not apparent (Kazdin, 2007). Also, none of the studies reported if they were powered to detect mediation, but given the small sample sizes, they were generally underpowered (Fritz & MacKinnon, 2007). Therefore, again, replication on a larger scale is needed to strengthen conclusions.

Despite these shortcomings, the mediation data does provide a valuable insight into the relationship between ACT and LTCs. To build on this and advance the model, consideration needs to be given to each of the six core elements within the “hexaflex” (Figure 1), as they all are distinct from each other (Hayes et al., 2006). By doing this it would address a current bias in the mediation literature, whereby more attention has been given to understanding the role of acceptance over behaviour change processes (Hayes et al., 2012). Identifying the mediating role of each part of the model is the first step in establishing more clearly the mechanisms of change in ACT (Kazdin, 2007).

The study of mediational ACT processes for LTCs is still very much in its infancy. Furthermore, most of the studies conducted within this field have been carried out by a small group of the same researchers. Effect sizes are often lower when RCTs are conducted by research groups that are not leaders in relation to the specific model (Ost, 2014). RCTs offer a robust way of testing mediation (Kazdin, 2007), but often use homogenous samples and simplified protocols, this raises the question of generalisation to more routinely delivery ACT in clinical services. Henceforth, studies should be repeated in other centres and naturalistic clinical settings.

Another way of exploring processes of change is through qualitative research. Qualitative research is important in allowing us to learn about the experience and process by which ACT may produce beneficial outcomes, in order to inform practice (Lutz & Hill, 2009). To date, much of the ACT research had been based on quantitative studies, which explore therapeutic processes by measuring outcomes. Therefore, it may be helpful to draw on more qualitative approaches which offer another lens on mechanisms of change, as Mason and Hargreaves (2001) did for mindfulness-based therapy. Subsequent qualitative exploration could help clarify how the six core processes interact with each other as they are better able to capture complexity and nuances (Willig, 2013). Finally, ACT was intended by its founders to be a transdiagnostic therapy, so further explorative work within the context of both physical and mental health is significant. This will add to understanding more about the therapeutic processes, which is important for the justification of treatment.

## Conclusion

Increased psychological flexibility appears to mediate improved QoL and reduce illness related distress, which fits with existing theory on models of ACT. This concept consists of six interrelated core processes. There is currently not enough evidence to explain the role of acceptance, values or mindfulness as single mediators within the broader concept of psychological flexibility for LTCs. Therefore, research is needed through both quantitative and qualitative methodologies to understand how the specific mechanisms within the ACT model relate to each other and facilitate change, in order to support further theoretical development and enhance clinical interventions.

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## Section B

# Understanding the therapeutic processes in liaison psychiatry acceptance and commitment therapy groups: A grounded theory approach

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A thesis submitted in partial fulfilment of the requirements of Canterbury Christ Church University for the degree of Doctor of Clinical Psychology

# Abstract

Acceptance and Commitment Therapy (ACT) is transdiagnostic therapy, found to be effective for both mental and physical health conditions. To date, much of the research has focused on evaluating ACT groups within single health conditions. This study used a grounded theory methodology to develop an understanding of the therapeutic processes within liaison psychiatry ACT groups where individuals present with long-term physical health conditions (LTCs) and accompanying psychological difficulties. Interview data from thirteen participants who had either attended or facilitated these groups was analysed. In line with the methodology, data analysis ran concurrent to data collection. As categories emerged theoretical sampling was used to facilitate the generation of a theory. This grounded theory model presents an explanatory framework of 'the individual journey through a transdiagnostic ACT group'. The theory suggests a combination of group processes and ACT processes enabled learning, which led to increased awareness. Learning extended beyond the group setting, but change was only maintained for some post group, with expectations and relationships to ACT appearing to influence longer term gains. In conclusion, participants appeared to gain more therapeutically if they had low expectations and connected with values-based action. Implications for future research and clinical practice are discussed.

*Keywords:* ACT, transdiagnostic, group, long-term health condition, grounded theory.

## Introduction

Acceptance and Commitment Therapy (ACT) is considered part of the third wave of behavioural and cognitive therapies (Hayes, 2004). ACT acknowledges that distress is part of human life, however, within Western societies there is an assumption we should be free of all ‘symptoms’ that indicate distress (Hayes, Strosahl, & Wilson, 2012). According to ACT theory, attempts to eliminate these ‘symptoms’ in an effort to be ‘cured’ can be detrimental to wellbeing and the source of suffering (Harris, 2006). Therefore, ACT invites individuals to develop a new relationship with their internal experiences and focus on living a fulfilling life aligned to their values, in the presence of distress (Hayes, Villatte, Levin, & Hilderbrandt, 2011).

ACT is theoretically underpinned by Relational Frame Theory (RFT), a behavioural model of human language and cognition that emphasises the importance of the context of verbal relations (Hayes et al., 2012). According to this theory, psychological distress arises when individuals become ‘fused’ to the content of their thoughts, which influences maladaptive patterns of behaviour (Hayes, Luoma, Bond, Masuda, & Lillis, 2006). Engagement with these thoughts, leads to a struggle termed ‘experiential avoidance’, in which attempts are made to control distressing content (Hayes et al., 2012). For instance, having the thought “I am a bad person” can lead someone to feel distressed, diminishing contact with the outside world to cope. ACT proposes this be sidestepped by increasing psychological flexibility (Hayes et al., 2011). It is argued that, through acceptance and mindfulness-based strategies, individuals become more consciously engaged in the present moment, which allows them to respond flexibly to psychological events, whilst orientating behaviour towards what is important for them. Psychological flexibility is underpinned by six core processes (Figure 1), (Hayes et al., 2011). ACT interventions attempt to foster these processes, to bring individuals more in touch with their avoided thoughts, feelings and physical sensations.

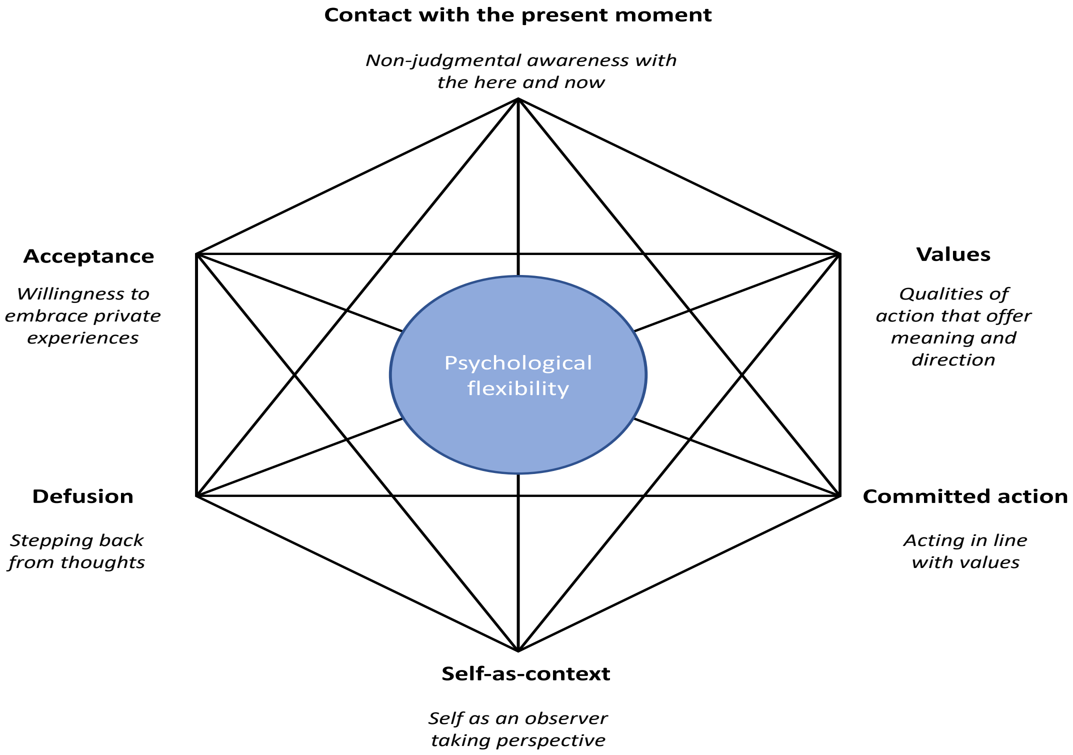

*Figure 1:* Six core processes in the ACT “hexaflex” model

An area that this theory suggests ACT can be helpful with is long-term physical health conditions (LTC), such as, diabetes and cardiovascular disorders (Taylor et al., 2014). LTCs are prolonged health difficulties that require ongoing management and adherence to treatment programmes (Taylor et al., 2014). ACT does not try to change long-standing symptoms, but suggests relating differently to them, can reduce suffering (Hayes et al., 2012). In this context, someone with chronic pain maybe fused to the thought “I cannot take this anymore”, which controls their behaviour. ACT would encourage this person to volunteer, for instance, in service of their values towards helping others, whilst accepting their pain (Hayes et al., 2012).

Furthermore, coping with a LTC, affects psychological wellbeing, with a high prevalence of co-morbidity in this population (Barnett et al., 2012). ACT is of value here, as it functions as a transdiagnostic therapy, interested in addressing universal processes rather than diagnosis (Hayes et al., 2011). It is therefore perhaps unsurprising that ACT has been shown to be effective across a range of clinical groups and health conditions, including, chronic pain, depression and psychosis (Veehoff, Trompetter, Bohlmeijer, & Schreurs, 2016; A-Tjak et al., 2015). Also, ACTs potential extends beyond research to clinical practice too.

It is thought that ACT lends itself particularly well to a group format, as experiential exercises work well in these settings (Hayes & Strosahl, 2010). A group format in ACT is helpful to highlight control strategies, encourage participation and provides a forum to commit to actions, so members are more accountable (Hayes & Strosahl, 2010). ACT groups function to deliver learning content and respond to in the moment experience (Hayes & Strosahl, 2010) with facilitators responsible for balancing the two. Therefore, existing theories of group process may account for some of the therapeutic benefits gained by individuals attending ACT groups. Yalom and Leszcz (2005) describe the benefit of therapeutic factors, such as, feeling supported, a sense of belonging and having experiences normalised. Group theory also accounts for learning in groups, with consideration for the impact of the environment, group size, task (Jaques & Salmon, 2007) and the level of participation (Crozier, 2005).

In practice, ACT groups aim to increase psychological flexibility, so to support individuals to persevere with actions in important life areas, rather than focusing on symptom elimination (Harris, 2006). To date, research evaluating ACT groups for

LTCs has generally been confined to disease specific populations; fibromyalgia (Wicksell et al., 2013), obesity (Forman et al., 2016) and diabetes (Gregg, Callaghan, Hayes, & Glenn-Lawson, 2007). Only a few studies have evaluated transdiagnostic groups (Pinto et al., 2015; Brassington et al., 2016) where individuals present with both physical and mental health conditions. Both studies suggested that transdiagnostic groups could be effective through the processes predicted by the ACT model (Bond & Bruce, 2000), particularly values-based behavior, but as this area has been less researched, change processes remain unclear.

Understanding more about processes of change in therapy highlights the specific ingredients which lead to improved outcomes, so to maximise treatment benefits (Kazdin, 2007). This is an important area of research for ACT so to enhance its application clinically. RCTs demonstrate the effectiveness of ACT, with many studies including measurement of mediators, alongside outcomes (Hayes et al., 2006). A recent review of mediation studies looking at ACT for LTCs (see Section A) found evidence for the broad concept of psychological flexibility, as a statistical mediator for outcomes. However, the evidence for acceptance and values was insufficient.

Research that explores mechanisms of change through experience has the potential to add important clinical value. Qualitative methodologies are well placed to do this, providing a helpful link between theory, research and clinical practice (Kazdin, 2008). However, despite ACTs philosophy and prominence to experiential understanding, there is little qualitative research in this field. Thus far, qualitative studies for ACT have suggested some participants act on their values when faced with a challenge (Fitzpatrick et al., 2016). Furthermore, mindfulness, defusion, acceptance and values have been described as the most useful parts of ACT for some individuals with psychosis (Bacon, Farhall, & Fossey, 2013). The experience of caregivers and psychological practitioners attending ACT groups has also been explored (Williams, Vaughan, Huws, & Hastings, 2014; Wardley, Flaxman, Willig, & Gillanders, 2016).

Mechanisms of change in ACT have been evaluated predominately through quantitative methodologies, with the broader concept of psychological flexibility and its six core parts appearing to mediate a range of outcomes (Levin, Hildebrandt, Lillis, & Hayes, 2012). However, the current evidence base for ACT and LTCs, is limited to disease specific populations. Therefore, research is needed to explore ACT's application with co-morbid presentations and qualitative methodologies could provide more understanding of the processes of change in ACT.

One approach to take is to use a grounded theory methodology, to build a theoretical understanding of how individuals with both physical and mental health conditions experience group therapy using an ACT model. While there is some existing theory, notably models of ACT (Hayes et al., 2011) and groups processes (Yalom & Leszcz, 2005), which could explain what is happening, it is not certain that the actual therapeutic processes are reflected in these. Research of this type has not been conducted for ACT, although, based on anecdotal evidence, groups in practice are more likely to be transdiagnostic, therefore it is of real world value. The ingredients of ACT perceived as most helpful, will inform future clinical practice.

The aim of the study was to develop a theory of the therapeutic processes in liaison psychiatry ACT groups, for individual with LTCs and accompanying mental health difficulties. These groups will henceforth be referred to as transdiagnostic ACT groups. The research was guided by the following questions:

1. What changes do people experience during the course of attending transdiagnostic ACT groups and what processes do they attribute these changes to?
2. What differences do people notice after completing such ACT groups and what processes do they attribute these changes to?

# Method

## Design

A grounded theory methodology was followed (Glaser & Strauss, 1967), analysing data collected from individual semi-structured participant interviews. This approach was chosen over other qualitative methodologies, such as, interpretive phenomenological analysis (IPA; Smith, Flowers & Larkin, 2009), as it allows a theoretical model to develop through the research process, from the perspective of the participant (Urquhart, 2013). Furthermore, given that participants within the groups presented with different LTCs, grounded theory allowed for a rich exploration of commonalities and differences across participants (Birks & Mills, 2015).

## Epistemological position

The study took a critical realist position (Corbin & Strauss, 1990). This perspective situates itself between positivist and social constructionist approaches. The researcher accepts that a reality exists, but takes a critical stance towards examining it, acknowledging that it can only be understood subjectively. This position accepts that the researcher cannot be completely objective, and their experiences and wider contexts influence what emerges from the data. Subsequently, the researcher took reflexive stance to assure data quality (Birks & Mills, 2015).

## Context of intervention

A liaison psychiatry service within an NHS Trust set up a programme of ACT groups based on suitability and clinical need. Liaison services receive referrals from a number of different hospital specialties (e.g. bariatric, rheumatology, gastroenterology) for individuals (aged 18 to 65 years) who present with LTCs and experience mental health difficulties. Four ACT groups were run each year, with an average attendance of six to eight participants per group. They run over five consecutive weeks, with sessions lasting 90 minutes, totalling seven and a half hours of therapeutic contact.

The participants interviewed had attended four different group cohorts. Three groups were facilitated by a qualified Clinical Psychologist trained in ACT and co-facilitated by an Assistant Psychologist. The other group was facilitated by a Trainee Clinical Psychologist and Assistant Psychologist, both trained in ACT and closely supervised by a qualified Clinical Psychologist who observed sessions and provided weekly supervision. The group protocol was based on the ‘ACT for life’ manual (Oliver, Morris, Johns, & Byrne, 2011), adapted for this cohort by amending clinical examples to make them more relatable. The group aimed to teach skills to increase psychological flexibility and encourage behavioural change towards values (Table 1).

| **Group session** | **Main aims and content** |
|---|---|
| **Session 1**<br><br>Introductory Session | *Aim:* Introduction to the program<br>Introductions and ground rules<br>Introducing ACT (its principles, how it works, why it is useful)<br>Explaining ACT is not a cure or ‘magic bullet’<br>Overview of how the sessions will be delivered<br>Mindfulness exercise<br>Baseline outcome measures |
| **Session 2**<br><br>Control vs. willingness | *Aim:* Encourage acceptance and strengthen acceptance skills<br>Mindfulness exercise (start and end of session)<br>Importance of acknowledging negative thoughts<br>Introduce passengers on the bus metaphor<br>Discussion around emotional control<br>Homework: acceptance/willingness worksheet |
| **Session 3**<br><br>Goals vs. Values | *Aim:* To start thinking about our values in life, and what valued direction particpiants want to take.<br>Mindfulness exercise (start and end of session)<br>Experiential exercise control and valued action discussion<br>Identify what values are<br>Discussion around goals vs values<br>Homework: value-consistent action planning |
| **Session 4**<br><br>Values and Committed Action | *Aim:* reflecting on our values and the actions that can be taken<br>Mindfulness exercise (start and end of session)<br>Choice point: Map for meaningful life<br>Discussion of values: bulls eye task and barriers to engagement<br>Homework: Willingness action plan |
| **Session 5**<br><br>Self-compassion and Summary | *Aim:* To equip participants with ACT skills and tools to take forward from the groups.<br>Mindfulness exercise (start and end of session)<br>Recap values and self-compassion<br>Summary of group sessions<br>Outcome measures |

*Table 1:* ACT group sessions and content outline

**Participants**

In line with a grounded theory approach, participant triangulation (Willig, 2013) was incorporated into the study's design. Therefore, data was collected from group participants and facilitators to include a range of perspectives. Included participants met the criteria for interview if they had attended or facilitated the ACT groups. Participants were excluded if they had dropped out after one session, so did not have enough group experience. A total of thirteen people were interviewed, of these nine were participants and four were facilitators (Table 2).

| Pseudonym | Gender | Age | Ethnicity | Time since attended group (months) |
|---|---|---|---|---|
| Participant 1 | Male | 51 - 55 | Middle Eastern | 2 |
| Participant 2 | Male | 46 - 50 | Black Caribbean | 2 |
| Participant 3 | Female | 31 - 35 | White British | 10 |
| Participant 4 | Male | 66 - 70 | White British | 18 |
| Participant 5 | Male | 61 - 65 | White British | 18 |
| Participant 6 | Male | 46 - 50 | White British | 12 |
| Participant 7 | Male | 46 - 50 | White British | 24 |
| Participant 8 | Male | 51 - 55 | White European | 1 |
| Participant 9 | Female | 41 - 45 | White British | 1 |
| Facilitator 1 | Female | 26 - 30 | White British | 2 |
| Facilitator 2 | Female | 21 - 25 | White Asian | 2 |
| Facilitator 3 | Female | 26 - 30 | White British | 18 |
| Facilitator 4 | Male | 26 - 30 | White British | 1 |

*Table 2:* Group participant and group facilitator demographics

Their ages ranged from ‘21 to 25’ to ‘66 to 70’ years and they came from different ethnic backgrounds, but were predominately White British. All group participants had a diagnosis of a LTC (not in the table to preserve anonymity) these included, Parkinson’s disease, multiple sclerosis, chronic pain, kidney disease, tremor, heart condition, facial palsy and a vestibular disorder. The psychological impact of these conditions meant they also had difficulties relating to either anxiety or depression. Time since completion of the group ranged from 1 month to 24 months. Of the 16 participants approached 13 agreed to take part.

### Procedure

Group facilitators and clinicians within the service informed group participants about the research. They offered those who were interested in finding out more an information sheet (Appendix A). The lead clinician informed group facilitators about the research, they were also offered further information (Appendix B). Those interested in taking part gave their contact details to be passed to the researcher.

Initially, convenience sampling meant inviting all those who had attended or facilitated the ACT groups to participate. As the research developed and categories emerged from the initial interviews, theoretical sampling informed further recruitment. The process of theoretical sampling, a key component of grounded theory (Willig, 2013), meant participants could be specifically selected later in the study to help develop the model. Thus, information from early interviews, led the researcher to theoretically sample participants based on time since completion, to explore the longer-term impact of the course. Theoretical saturation within grounded theory is the notion that data collection continues until no new categories are identified (Glaser & Strauss, 1967), so have become ‘saturated’ (Charmaz, 2006). Dey (1999) challenges this notion, proposing data collection should stop when categories are suggested by the data. Theoretical sufficiency therefore guided when data collection stopped (Dey, 1999).

## Data collection

Two interview schedules were designed to take participants and facilitators chronologically through their journey of the groups (Appendix C and D). A service user from the University's expert advisory group, who shared similar difficulties to the participant pool, was consulted on the proposed questions. The interview asked participants and facilitators respectively about their experience of the group, if they noticed any changes over the course of the sessions and if it had any impact on their everyday life. Early questions focused on what it was like in the beginning, how this changed over time and what they remembered now. In line with the methodology, emerging themes were explored in depth in later interviews (Corbin & Strauss, 1990).

Informed consent (Appendix E and F) and demographic information (Appendix G) were sought in writing on the day of the interview. The semi-structured interview schedule ensured consistency, whilst allowing for individual experiences to be voiced. The interviews were conducted in a sensitive manner, so to be responsive to any signs of distress. A post interview debrief was offered, but never required. The interviews were 30 to 90 minutes long (mean = 53 minutes). The majority were conducted face to face (n=11), however, some participants were interviewed by telephone (n=2) later in the study, when this was not convenient. All interviews were audio recorded, transcribed verbatim and fully anonymised for the purpose of analysis (Appendix H).

## Data analysis

Data analysis in this study drew on analytic procedures described by Charmaz (2006) and Corbin and Strauss (1990). Initially four people were interviewed (two participants and two facilitators). Analysis began immediately with these initial interviews open coded line-by-line. Detailed memos (Appendix I) were written concurrent to the analysis (Charmaz, 2006) to maintain a written record of theory development and establish credible relationships between concepts (Urquhart, 2013). A further participant interview was conducted and coded in detail. At this stage patterns started to emerge from the data, with ‘constant comparison’ method (Glaser & Strauss, 1967) used to move back and forth between the raw data, to remain grounded in it and to help identify similarities and differences.

Conceptual categories began to form, which were explored by five further interviews (four participants and one facilitator). These were transcribed by an external person, but the researcher reviewed the transcripts whilst listening to the audio recording. Focused coding was used for later data analysis (Corbin & Strauss, 1990), drawing on the most significant initial codes. Emerging categories raised questions about individual expectations, ACT and group processes. Therefore, three further interviews, from a more recent group, were theoretically sampled to see if their experiences fitted the developing theory. Again, focused coding was used for analysis of these transcripts. No new categories emerged, therefore, theoretical sufficiency was considered to have been achieved at this stage (Dey, 1999). Together, memos and diagramming (Appendix J) helped to form a model, which was repeatedly verified against the original data to ensure it was grounded in this. One participant [P7] described their experience as negative, in contrast to the positive accounts given by the other 12. Their experiences therefore influenced theory development, whilst bearing in mind that this was only one view.

## Quality assurance and reflexivity

Quality assurance guidelines for qualitative research were applied (Elliott, Fisher, & Rennie, 1999; Yardley, 2000), to support transparency, rigor and enhance the validity of the findings. Furthermore, closely following grounded theory methodology procedures improved credibility, with memo writing (Charmaz, 2006) to record thoughts and initial ideas, constant comparisons (Glaser & Strauss, 1967) to ground concepts in the data and the use of participants' own language (Birks & Mills, 2015) to stay true to the data. The researcher had previously co-facilitated an ACT group for carers of individuals with psychosis, which influenced her interest in this study. Therefore, a critical realist stance was held, with the researcher being explicit about her own perspective, assumptions and theoretical orientations. To aid recognition of the researcher's influence on data analysis, a research diary was kept throughout the process (Appendix K). Furthermore, supervision during the analysis helped the researcher own her perspective and reduced bias.

## Ethical considerations

The study was approved internally by members of University staff independent to the project. Following this, ethics approval was obtained from a National Health Service (NHS) Health Research Authority (Appendix L) and relevant NHS research and development departments (Appendix M). Throughout the research the British Psychological Society's Code of Conduct (BPS, 2009) was followed, as the wellbeing of the participants was paramount throughout the process.

## Results

The grounded theory below (Figure 2) illustrates the therapeutic processes within a transdiagnostic ACT group. This was developed from the perspective of participants and facilitators, whose accounts complemented each other. The core category was ‘the individual journey through a transdiagnostic ACT group’, which comprised of six categories and 18 subcategories (Table 3).

| Categories | Subcategories |
|---|---|
| **A. Individualities** | Motivation for attending<br>Apprehension<br>Influence of expectations |
| **B. Establishing and maintaining an effective group framework** | Usefulness of ACT<br>Benefit of group format<br>Effective facilitation<br>Creating a safe, collaborative space<br>Committing to group membership<br>Letting the group evolve |
| **C. Increased awareness** | Learning through the group<br>Sharing experiences<br>Normalising<br>Supporting<br>Learning through ACT<br>Mindfulness<br>Defusion<br>Values |
| **D. New ways of being** | Allowing a space for difficulties<br>Changing relationship to difficulties<br>Being kinder to self |
| **E. Building on the group** | Integrating ACT into everyday life<br>Doing what matters |
| **F. Struggling without the group** | Valuing the group over ACT<br>Viewing problems as too big |

*Table 3:* Categories and subcategories

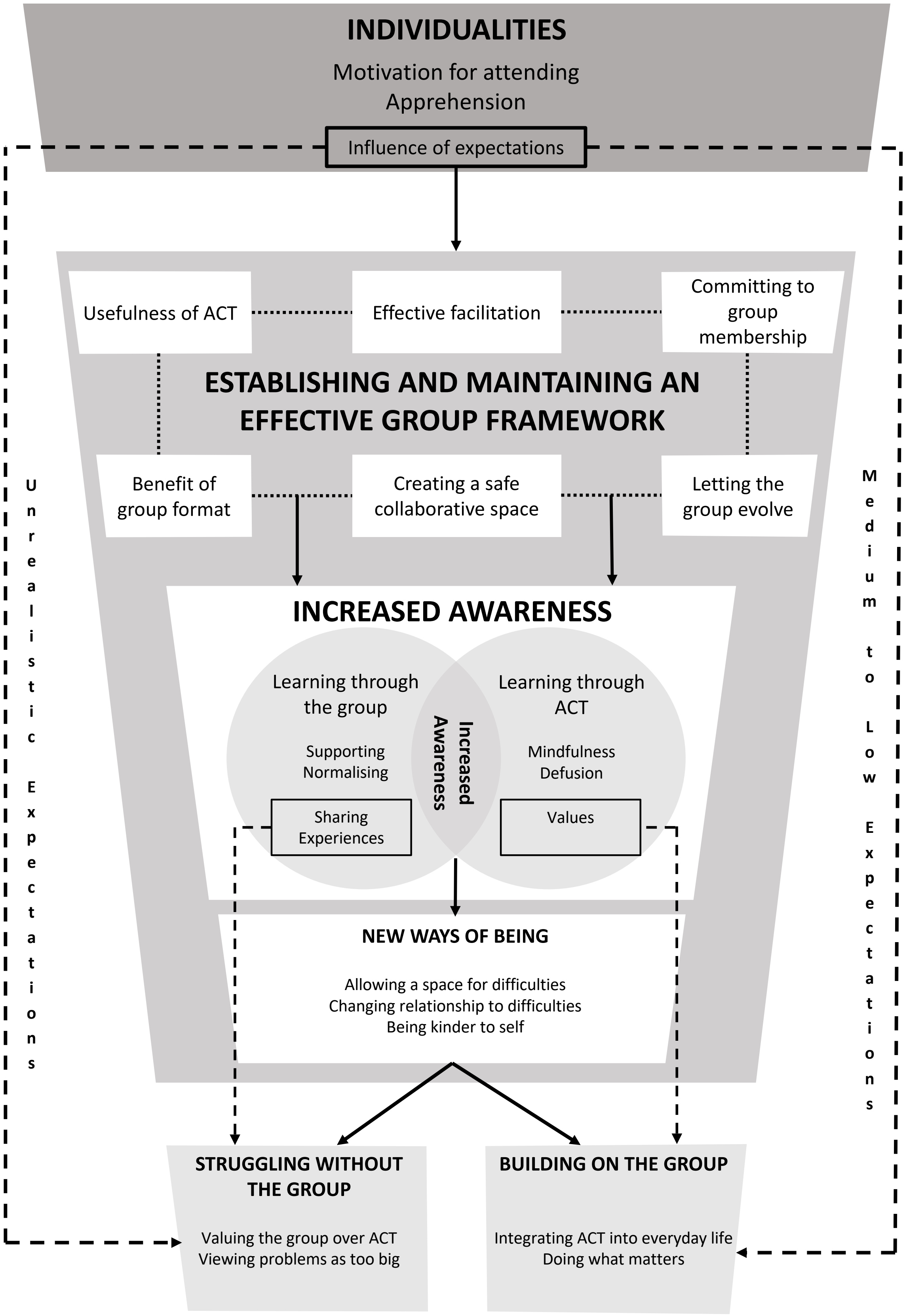

*Figure 2:* ‘The individual journey through a transdiagnostic ACT group’

In summary, the model captures how as individuals enter the group alone, the process through which they become more cohesive, which in turn facilitates a number of change processes, both within the group setting and beyond this. Therefore, the model reflects the linear movement of participants through the group, as well as cyclical interrelated processes which impacted on engagement and outcomes beyond the group. In turn, the categories and subcategories will be described in detail in the text. For further information regarding theory development, see Appendices N and O.

## Category A: Individualities

This category appeared to encompass the factors influencing participants attending the group, their different perspectives on what it would involve, as well as what enabled them to engage with the process. Three main subcategories capture this concept: motivation for attending, apprehension and influence of expectations.

**Motivation for attending.** The group was transdiagnostic in nature, so participants presented with varied physical and mental health conditions. A similarity however was that they were all living with chronic illnesses and were looking for support with this. Participants spoke about managing multiple symptoms including pain, tiredness, motor and neurological difficulties and the impact of these on their lives was essentially their motivation for attending; *“I had the leg movements…they advised me to either not do anything or to go for the ACT”* [P2]. Another participant stated their motivation was due to *“rising anxiety with Parkinson’s disease”* [P7]. Many had never come into contact with other people with chronic illness before, therefore, *“it was more, to try and sort of see how other people sort of cope with sort of challenges like this”* [P9].

**Apprehension.** Initial anxieties about attending were applicable to all, as they each arrived at the group alone. Universally none had heard of ACT, which could be perceived as an ambiguous title for a group, e.g. *"no, not really, well, you know, acceptance, is a bit misleading when it's not explained to you"* [P8]. Therefore, although some had experienced group therapy, there was a strong sense of stepping into the unknown and meeting new people. One participant stated, *"I was a little bit apprehensive, um, the unknown, you didn't know if you were going to be judged"* [P6].

**Influence of expectations.** Participants had preconceived ideas about what the group would offer them, which ranged from high to low expectations. For the majority, their expectations were low because having tried so many different interventions, they assumed there was nothing to help their problems. For example, one participant stated that their expectations *"were quite low, unfortunately or fortunately, because I felt it's not going to address any issues"* [P8]. Another stated, *"anything was worth a try so that's why I went and gave it a try"* [P4]. The facilitators noticed this also; *"I think they were all a bit beaten down by the system, and they're literally like, ah well I haven't got anything else to do"* [F3]. Other participants sat more central on the continuum of expectation, with an open mind and optimistic about change (e.g*. "I did feel positive that something good could come out of it"* [P3]). Some had been advised that there was nothing more that could be done medically, so held potentially higher expectations, as the group was the only option to help them cope with their circumstances. Whereas one participant was very hopeful of all of their problems diminishing, stating *"I am going to turn 180 degrees to get really better"* [P1]. The participant who had a negative experience was expecting more of an individual approach; e.g. *"it was a bit of mistake actually, me going to the group…not what the psychiatrist intended*" [P7].

**Category B: Establishing and maintaining an effective group framework**

Given the initial apprehension about attending the group, participants and facilitators remarked on what the group was like in the beginning and how it changed over time. A picture began to emerge of how individuals experienced the group, what it was like to learn ACT in this context and what kept them coming back each week. This category captures the processes which appeared to enable later self-discovery and awareness.

**Usefulness of ACT.** Many participants described the first session as daunting and an anxiety provoking experience (e.g. *"I was a bit worried when I went"* [P1]). They were unsure of how much of themselves they would be expected to share with individuals they had never met before. The experiential exercises within ACT therefore became a useful tool, which eased people in.

> *"I think pretty much all of them at the beginning were a little bit anxious about just attending groups in general, speaking in front of people and…openly share or discussing what their physical health condition was and yeah we didn't do that at all, like following the ACT principles…we did try to keep the sessions quite interactive, collaborative and erm at times even fun"* [F4].

Initially, the group engaged more in practical activities, which were accessible and the familiarity of mindfulness put some at ease; e.g. *"the first session they mentioned mindfulness and I've got experience with that…this could be really good"* [P3].

**Benefit of group format.** There was a clear sense from the data of the group format being perceived as an advantage for this intervention. For many participants, they had been left isolated by their condition; e.g. *"it's affected my confidence…I really don't like socialising with people"* [P9]. For those unable to work or without a supportive social network, the group gave structure to their week, reduced isolation and allowed them to be a part of something:

> *"I felt that it would do me good to go out and be part of something. If you're not part of something, you've been switched off or cut off from people…it's a chance to get out, meet people"* [P5].

It is worth holding in mind however that groups do not suit everyone (e.g. *"there were too many people. But I think it needs to be done on a much smaller scale"* [P7]).

**Effective Facilitation.** Participants described the facilitators as supportive, thoughtful and enthusiastic. It appears that the facilitators played a key role in making everyone feel welcomed (e.g. *"they were good at creating that sort of atmosphere"* [P9]), as well balancing the structure and content, so to keep the sessions moving; e.g. *"they moderated the whole thing, otherwise there would be no direction"* [P8]. Importantly, co-facilitation meant individual needs could be responded to; e.g. *"the man who struggled…one of us could spend more time with him on an individual basis*" [F1].

**Creating a safe, collaborative space.** For all but one participant, an important foundation for sharing and learning was that the group felt safe and trusted. One participant stated *"I'd say feeling comfortable made it easier to talk…I suppose it's* *because they don't judge you, people don't judge you"* [P4]. This process was bidirectional with one facilitator stating *"they made it really quite a nice atmosphere…and safe atmosphere for us to facilitate"* [F2]. The facilitators were mindful of allowing everyone's voice to be heard and were keen to ensure an equal partnership was fostered; e.g. one commented: *"[we'd] share some of our stories…it wasn't sort of an us and them relationship, but we were kind of part of the group"* [F2].

**Committing to group membership.** In all cohorts one participant dropped out after the first session. However, once the final group membership was established participants were committed to attending and being active members of the group; e.g. *"I was quite pleasantly surprised running these groups because people were a lot more engaged, they wanted to contribute"* [F4]. Participants enjoyed the group (e.g. *"I was looking forward to it actually"* [P8]) and were making a choice to go back each week, an important part of the group process, driven both by their relationship to help and the relationships they had started to build.

> *"Everybody's there of their own free will, because they obviously need help, and I think that was the main thing that people had gone there because they needed help, not because they had to go there"* [P6]. Another said *"as a group you become a little bit of…comradery, sort of thing…a bit of friendship"* [P5].

**Letting the group evolve.** No one experienced a sudden light bulb moment when the group felt different, but most recognised a gradual mid-point change, when the group felt more cohesive. Everyone started opening up more and initial barriers broke down.

> *"We sort of became more open as a group towards the end of the sessions… you never know whether that's because you've got to know each other…gauge everybody and break down those boundaries a bit"* [P9].

The facilitators recognised a shift in their role whereby they moved from more of a talking to listening position, allowing for peer mentorship; e.g. *"as the session went on that kind of became easier cause people were then helping each other out so it kind of became less up to us"* [F1]. It seems as though this process was enabled by the facilitators taking a flexible stance (e.g. *"we moved to a less structured approach as the sessions went on"* [F4]) responding to group need and allowing more time for sharing experiences when participants felt ready to do this.

## Category C: Increased awareness

Increased awareness appeared to be a core mechanism for change, defined by participants as becoming more aware of their own internal processes and learning that they are not the only one facing difficulty. This appeared to be facilitated by two separate, but interrelated processes, within the context of the supportive group environment detailed above. These were categorised as learning through the group and learning through ACT, with participants relating to one more than the other.

**Learning through the group.** Within this subcategory there appeared to be a number of important key processes, *sharing experiences*, *supporting* each other and *normalising*. For some participants the therapeutic benefits came from listening and relating to other people's stories. It was reassuring, *normalising* and 'enlightening' to hear they were not the only one facing difficulties.

> *"When you speak to other people you realise it's not just you that's got problems"* [P4]. Another participant stated *"I felt I wasn't alone, a lot of people having similar problem, erm, it did give me some kind of relief you know that I'm not just the one who is having that experience"* [P1].

It also allowed them to put their own problems into perspective, one person said, *"I sometimes felt…maybe my situation was not as bad as I thought"* [P2]. With genuine care and compassion shown in *support* of each other (e.g. *"you say to them, you know, it's alright, just do what you can do, you help people and they help you"* [P5]).

On the other hand, there was a cathartic process that came from talking about their own problems, being listened to and having their experiences validated. Participants became aware of the benefit of talking and *sharing experiences,* e.g. *"it was like a release of tension…when you actually share it, it feels that a big weight has been taken off your shoulders"* [P4]. When the group connected in this way, it was generally experienced as very meaningful for participants, as they felt understood; e.g. *"people that aren't sick sort of don't understand what we're going through…it's quite isolating when you know you feel like no one gets what you're going through"* [P3]. When facilitators looked back on their experiences, this stood out for them also; e.g. *"people were empathising with one another and really understanding each other's problems, and that was quite nice to see"* [F2]. Given the perceived value of this, some participants wanted more discussion; e.g. *"I think we needed more time"* [P1] and "[there was not] *enough time for people to talk"* [P7]. Group size appeared to contribute to this; e.g. *"having four people…they all had the opportunity to share as much as they* *wanted to”* [F4]. In contrast, larger groups which meant *“people hadn’t quite finished what they were saying, and they would hurry to get onto the next practical”* [P7].

**Learning through ACT.** Some participants found the principals of ACT to be informative. Three main ACT specific processes emerged, these were, *defusion*, *mindfulness* and *values* which led to increased awareness. The ‘passengers on the bus’ metaphor (Appendix P) seemed to be a primary tool for some people learning more about themselves. It appeared to support some participants to become more in touch with difficult emotions; e.g. *“those passengers for me were fear and shyness and erm anger”* [P2]. Through this, many became increasingly aware of self-criticism.

> *“Recognising that you have those issues…I tend to constantly fight with myself, I’m very critical of myself”* [P8]. One participant said, *“I realised how hard I actually am on myself”* [P3].

Many commented on the ‘leaves on the stream’ as a mindfulness exercise they found useful (e.g. *“imagine a river your thoughts going down a river. I thought that was quite nice”* [P7]). This was a way of bringing thoughts into their awareness; e.g. *“all those leaves were thoughts, our thoughts and we were asked to look at those thoughts as they were passing by”* [P2]. “[It was good] *to see how you can sit with your emotions the whole time and don’t let it sort of drive you”* [P9]. Through mindfulness, more of a conscious awareness was brought to these internal processes by some participants. Those with previous experience of mindfulness were able to share this and encourage others; e.g. *“I think to hear one person in the group say I’ve done mindfulness and you* *do get benefit from it"* [P3]. Finally, talking about values and how becoming in touch with these values can help create a more meaningful life really resonated with some.

> *"I identified my values…found out why I don't like certain things…I always thought I will have to adjust…but the moral of the fact is that it is just my values are just different from the people I encounter"* [P8].

**Category D: New ways of being**

By engaging with the group and the model, all but one of the participants reached a stage where they were able to see that there were different ways of thinking and being. This discovery allowed them to 'become unstuck' from the unhelpful patterns they were caught up in and more accepting of themselves and their illness. Towards the end of the group, participants were generally feeling more confident and positive about the future and experimented with some of the skills outside of the session.

**Allowing a space for difficulties.** Most participants started to allow more space for difficult thoughts and feelings. They realised how painful their inner critic could be and how much they tried to avoid this feeling. They learnt that avoiding and battling with these experiences kept them 'stuck'; e.g. *"a few times I try and sweep things under the carpet, but then I think, no don't do that"* [P5]. Therefore, they started to accept their presence, by being more open, curious and present.

> *"We could find a way through mindfulness…we could find a way to acknowledge them…allow them to be there"* [P2].
>
> *"Living with your values does make you accept your situation a bit better"* [P9].

> *“I really enjoyed and liked a lot was about the noticing, acknowledging and putting aside”* [P1].

**Changing relationship to difficulties.** In the absence of any to changes to what they perceived as the ‘problem’, some participants felt better about themselves, which appeared to reflect a change in the way they related to their difficulties (e.g. “*it changed the way I felt about it, it changed the way I thought”* [P4]) and a shift in what they perceived to be important. Even though their physical symptoms and life stressors remained, they appeared to be less of a priority and not the focus of all their attention. One participant said, *“discovering those elements in our lives which control us…we were all keen not to allow them to be there all the time”* [P2]. A facilitator also noticed *“a gradual realisation that there are things they could do that could help even if it does not get rid of the physical condition”* [F1].

**Being kinder to self.** For some participants, the realisation of how critical they were towards themselves (e.g. *“I do try and remind myself that it’s not my fault”* [P3]) allowed them to give themselves a break and take the pressure off (e.g. *“tomorrow is another day”* [P4]). This change in attitude towards themselves came from both talking in the group and relating to ACT. One participant said, *“love the self and be more compassionate with yourself…I like myself now, much more”* [P8]. Another participant stated, *“not to keep thinking to myself that people are judging me…you’re not going to gain if you’re negative all the time”* [P6]. All except one participant felt more positive about who they were and wanted to be towards the end of the group.

**Category E: Building on the group**

This conceptualises many participants' ability to see the group as a start towards doing something differently, whether that be trying something new or reconnecting with parts of themselves that they had forgotten. They described moving forward, taking time to digest the information and thinking about how they could live a more meaningful life.

**Integrating ACT into everyday life.** If participants had a previous experience of mindfulness they remembered the positive benefits that they had once gained and reconnected with this (e.g. *"bringing back in my mindfulness more"* [P9]). Participants were also aware of the barriers that get in the way of practice, which included, time pressures, challenges to finding a quiet space, and themselves (e.g. *"I mean the only barrier is the guy in the mirror, isn't it?"* [P8]). They appeared to respond to this by setting goals and recognising how much time they waste on unhelpful tasks. This extended to people using ACT in times of distress; e.g. *"now when I see my hands or there is a tremor…I just stop and I breath, it helps"* [P2]. The facilitators provided worksheets for participants to use as a refresher; e.g. *"it was really important…to give people some resources to use"* [F3].

**Doing what matters.** Some participants left with the confidence to put things into action as *"it was a bit of a kick up the backside…made me feel a little bit more positive in myself"* [P6]. Several participants found employment, enrolled in a course *(e.g. "I attended a portrait photography workshop…I have never done that before"* [P2]) or went on holiday (e.g. *"first time we went away on holiday for nine years"* [P4]). Others accepted that what they were already doing was good enough; e.g. *"I am comparing myself less to people, which is a good thing"* [P9]. The participants who went away and started to do more were the ones who appeared to have connected more with values-based action. For these participants, taking action was experienced as empowering and boosted their self-esteem through the achievement of set goals.

## Category F: Struggling without the group

All participants, with the exception of one, reported that the group was a very positive experience, but they would have valued more sessions. Some struggled without the support of the group to move forward and make changes, becoming overwhelmed by their difficulties. For some talking with others was the most helpful aspect, therefore, they wanted to continue to have a space to do this. The participants that followed this trajectory, appeared to be the ones that had entered the group very hopeful or with unrealistic expectations of what the group might achieve.

**Valuing group over ACT.** This captures the view that the support of the group felt necessary to be able to maintain progress. Some participants gained more from sharing experiences, as opposed to learning techniques. Therefore, they felt isolated after the end of the group; e.g. *“I feel like I’m alone again…its where I started”* [P1]. They may have felt unable to get the same support from another source (e.g. *“their social group wasn’t so supportive”* [F2]). Or they felt that the ending was too abrupt; e.g. *“it cuts off dead...and I think…well what was all that for”* [P5] as for them the group’s purpose was to belong to something. Therefore, the ending was experienced as loss and not a start.

**Viewing problems as too big.** This reflects the view that at the end of the group some participants felt their own problems were more complex than others’; e.g. *“one thing I* *noticed is that a lot of people were still able to go to work…live a relatively normal life, I've never come across anyone in my position where they can't really do much"* [P3]. Or they felt overwhelmed by new difficulties; e.g. *"problems, more serious problems happen"* [P1]. Their view of their difficulties meant they stayed in a stage of contemplation (e.g. *"I made a plan to go out for a walk…but can't do it"* [P3]) which often left them immobilised by feelings of failure. Some participants felt ACT was not suitable, given the complexity of their difficulties; e.g. *"with what I was going through it wasn't very useful because I was having quite acute anxiety"* [P7].

## Discussion

The purpose of this study was to develop a grounded theory of the therapeutic processes within a transdiagnostic ACT group. Interviews with both group participants and facilitators allowed a model to emerge from the data, categorised into six key areas. The findings suggest that most participants experienced change, once a framework had been established, which allowed them to start to explore different parts of themselves. The model presents an explanatory framework of therapeutic change within an ACT group, allowing for consideration of the different individual journeys taken through the group by different participants. For the majority of participants, a combination of group processes and ACT processes appeared to facilitate increased awareness, followed by the discovery of how things could be different. However, this change was only maintained for some participants post group, with pre-group expectations and relationship to ACT appearing to influence longer term gains. One participant's negative account may reflect the fact they were expecting a more individual approach, therefore, felt their needs were not met. This research offers a novel contribution to the literature, as qualitative research within ACT is limited and transdiagnostic groups for this population have not before been explored.

The first category related to the individualities that people were bringing to the group. Some held a higher expectation of what the intervention would offer. There was a difference between those who had tried many interventions, therefore, had nothing to lose and those who were still searching for something to relieve their symptoms. Unrealistic and highly optimistic expectations were expressed by participants who were less able to use the experience post group to improve their overall wellbeing. This was more striking for one participant, but expressed subtly by others who had exhausted all medical interventions, so ACT was their last hope. This finding also emerged in the work of Mason and Hargreaves (2001) who developed a grounded theory of mindfulness-based cognitive therapy for depression. They found individuals who held unrealistic expectations of what mindfulness could offer reported fewer therapeutic gains. Furthermore, the idea of looking for an external solution to remove all distress, fits with the underlying assumption within ACT of psychological inflexibility (Hayes et al., 2012). By this account, individuals become so fixed on eradicating their symptoms, they increase personal suffering (Harris, 2006). Therefore, the relationship people have to their symptoms may cause distress, not the symptoms themselves (Hayes et al., 2011). In contrast, those who entered the group with an open mind and potentially a more flexible thinking style, appeared to benefit more.

Establishing and maintaining an effective group framework, appeared essential for learning to take place. This second category reflected the ingredients that helped the group to form and gradually become more cohesive. Subcategories such as, ‘committing to group membership’, ‘effective facilitation’ and ‘letting the group evolve’ all fit with existing group theories around learning in a group (Jaques & Salmon, 2007). It appeared participants needed to feel safe before being able to move into a leaning space. Cormack, Jones and Maltby (2017) also echoed this notion terming it ‘building and sailing the group vessel’ relative to a group-based mindfulness intervention.

Increased awareness was at the centre of the model, with participants attributing change to learning through the group and ACT. Participants generally connected with one aspect more than the other. Learning through the group shared many similarities with Yalom’s therapeutic factors of universality, imparting information, catharsis and self-understanding (Yalom & Leszcz, 2005). Group participants described benefitting from developing a shared understanding, learning how others cope and sharing their own difficulties.

Learning about the self also appeared to be facilitated through ACT for some participants. The parts of the model participants connected most with were mindfulness, defusion and values (Hayes et al., 2011). Mindfulness appeared to be an important mechanism of change, in terms of helping participants create distance from distressing internal states. It appeared to be particularly useful and valued by those who had previous experience of it. Langdon, Jones, Hutton and Holtum (2011) found people return back to mindfulness practice when reminded of its usefulness.

Bacon et al. (2013) also found these components, as well as acceptance, as the most useful aspects of ACT therapy. Within the grounded theory developed in the current study, acceptance appears to happen at a slightly later stage in the process. This may be related to the number of sessions being only five as opposed to eight in the work of Bacon et al. (2013). Therefore, participants may need more time to engage with the concepts, or allow them to digest, as for many it was felt that the most change occurred after the group. This supports Forman et al. (2016) who found acceptance did not mediate change until session 16 out of 25. Furthermore, from the participants' perspective, nearly all wanted more sessions to learn about ACT in greater depth.

Values appeared to influence post group change, with those who connected with this concept seeming more likely to commit to behaviour change in the long-term. This was an interesting finding as much of the outcome literature for ACT groups and LTCs emphasises the role of acceptance (Foreman et al., 2016; Wetherell et al., 2011) and psychological flexibility as mediators of change (Gregg et al., 2007; Wicksell et al., 2013), with values given less attention. Self-as-context was part of the ACT model, that did not explicitly emerge from this grounded theory. However, it is likely to reflect the changes occurring within the fourth category 'new ways of being' where participants start to let go of their critical self and generate a kinder inner voice. Furthermore, self-as-context involves perspective taking (Hayes et al., 2011; Yu, Norton, & McCracken, 2017) so may fit with the learning arising through the group.

## Limitations

This study was carried out on a small scale, so the findings should be cautiously interpreted. Given, the time constraints, theoretical sufficiency guided when the data collection stopped (Dey, 1999). However, grounded theory on a larger scale would allow saturation to be reached, so some of the emerging concepts could be explored in greater depth. Ideally, groups running in other services, by different facilitators would be included to strengthen the generalisability of these findings, as liaison psychiatry groups may not be typical of ACT groups more generally. On the whole this sample of participants shared positive accounts of the group with the exception of one, therefore, it would be of value hear more ambivalent accounts to see how this fits with the model. Finally, the transdiagnostic sample in this research, meant there was not enough data to analytically consider each LTC and its individual impact on the process.

## Clinical implications and future research

This study suggested that a transdiagnostic ACT group was acceptable to most participants. Although each had a different health condition, they still connected and found commonalities, developing a shared understating that was therapeutic. Clinically, ACT groups in practice should give equal time to learning skills and talking about experiences, as both were perceived to be helpful. A key finding was that participants who connected most with values-based action, appeared to benefit more therapeutically. If this finding is born out in future research, this could suggest it would be helpful to devote more time to this aspect of the course. Therefore, future research could look to understand more about the role of commitment and behaviour change processes, as well as, acceptance and mindfulness processes (Hayes et al., 2012).

The role of the group was significant for some participants. ACT can be delivered individually but there may be an added benefit to doing it in the group environment, as participants recognised emotional control strategies and shared values (Hayes & Strosahl, 2010). However, given that this was not a comparative study, this finding warrants further investigation with an active treatment group, using quantitative methodologies to test this hypothesis on a larger sample. A comparative study could look at a disease specific ACT groups versus transdiagnositc ones.

Participants who had previously practiced mindfulness, responded positively to being reminded of this in the group. Therefore, booster sessions may be necessary to refresh the principles on ACT. The influence of expectations on engagement with the group and post-group therapeutic gains, highlights the need to be clear about what ACT can offer. It may be helpful to socialise participants to the ACT model before the start. Also, signposting to services after the group finishes may enhance wellbeing, especially for those whom the group was of most value. Finally, given these findings services may wish to review how many sessions are required for individuals with LTCs to make therapeutic gains, by analysing session by session outcome measures.

## Conclusion

The purpose of this study was to develop a model to understand the therapeutic processes in liaison psychiatry ACT groups. This was grounded in the experience of individuals who attended or facilitated such interventions. From the data emerged a model summarised as ‘the individual journey through a transdiagnostic ACT group’. A combination of group processes and ACT processes appeared to facilitate learning, which enabled increased awareness. Beyond the group, therapeutic gains were more likely to be reported by those who held lower expectations of what ACT could offer and connected more with values-based action. Further research should be taken to refine our understanding of the role of psychological flexibility and values-based behaviour change processes, using a larger heterogeneous sample.

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# Section C

Appendices and supporting material

**Hannah Shaw**

Salomons

Canterbury Christ Church University

April 2018

A thesis submitted in partial fulfilment of the requirements of Canterbury Christ Church University for the degree of Doctor of Clinical Psychology

## Appendix A: Group participant information sheet

Salomons Centre for Applied Psychology

Participant Information Sheet (group participants)

**Research title:** Understanding the therapeutic processes in liaison psychiatry acceptance and commitment therapy groups: A grounded theory approach

**Researcher name:** Hannah Shaw

Thank you for taking the time to read this information sheet.

Hello. My name is Hannah and I am a Trainee Clinical Psychologist at Canterbury Christ Church University. I would like to invite you to take part in a research study. Before you decide it is important that you understand why the research is being done and what it would involve for you. Talk to others about the study if you wish. Part 1 tells you the purpose of this study and what will happen to you if you take part. Part 2 gives you more detailed information about the conduct of the study. Please ask me if there is anything that is not clear or if you would like more information.

### PART 1

### What is the purpose of the study?

The purpose of the study is to explore individuals' experience of attending acceptance and commitment therapy (ACT) groups run through liaison psychiatry services. We would like to find out if attending the group brought about any changes for you, what aspects were helpful and to explore whether the group could be different in anyway.

### Why have I been invited?

You have been invited to take part in this study because you have attended the ACT groups and have experienced psychological difficulties in relation to your physical health problems.

### Do I have to take part?

No. You do not have to take part it is up to you to decide whether to join the study. It is important that you read this information and choose if you would like to share your experiences. If you agree to take part, I will then ask you to sign a consent form. You are free to withdraw at any time, without giving a reason. This will not affect the care you receive.

### What will happen to me if I take part?

You will be contacted by Hannah (Trainee Clinical Psychologist) and invited to attend an interview at a mutually convenient time. The interview will be face to face and held at the Department of Psychological Medicine or at another location if that is not possible. Some participants later in the study may be interviewed by telephone if face to face is not convenient. At the interview, you will be asked to sign a consent form. This will ask if you have read and understood information about this study. You will also be asked a few background information questions such as your age and gender. You will be given a copy of the consent form to keep, alongside this information sheet for future reference.

Interviews will last around 90 minutes, but we will take things at your pace and breaks can be included as necessary. You will be asked questions about your experience of attending the groups. We would like to hear about what the group was like for you, was it helpful, what do you remember and has the group had any impact on your everyday life. The interviews will be audio-taped so that the researcher can accurately record what you say. At the end of the interview, you will be free to ask any questions that you may have. If you agree, you may be invited to attend a follow up interview. If you take part in the study, we would like to offer £10 to say thank you for your time.

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

The interview will ask you about your own personal experience, this may bring up difficult thoughts and feelings, which could be distressing. You will have discussed similar issues in the groups and you will not be expected to answer any questions that you are not comfortable with. The researcher will conduct the interviews in a warm and sensitive manner and be responsive to this. You are welcome to stop the interview at any point.

### What are the possible benefits of taking part?

By taking part in this research it will give us the opportunity to learn more about people’s experience of attending the ACT groups. This will allow us to gain a better understanding, which may influence future psychological treatments offered. We hope that you will enjoy talking about your experiences and sharing your views.

**This completes Part 1.**
**If the information in Part 1 has interested you and you are considering participation, please read the additional information in Part 2 before making any decision.**

## PART 2

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

You are free and able to withdraw from the study at any time, without giving a reason. If you decide to withdraw from the study, we will ask you if we can still use your interview. If you say no, we will delete all records of the data you have given us. It will only be possible to destroy interview data collected prior to analysis.

### What if there is a problem?

We do not expect any problems to arise, however, any complaint about the way you have been dealt with during the study will be addressed.

If you become distressed during the course of the study there will be support available to you from the researcher and clinical team.

If you have a concern about this study, please contact me by email on h.r.shaw352@canterbury.ac.uk. I will do my best to answer your questions. If you remain unhappy and wish to complain formally, you can do this by following the Canterbury Christ Church University complaints procedure and contacting:

Professor Paul Camic
Research Director
The Department of Applied Psychology
Canterbury Christ Church University
Broomhill Road, Southborough,
Tunbridge Wells, Kent, TN3 0TG.
Email: paul.camic@canterbury.ac.uk
Telephone: 01892 507773

### Will my taking part in the study be kept confidential?

Yes. We will follow ethical and legal practice and all information about you will be handled in confidence. All information with your name and address on it will be kept securely in a locked cabinet. We will ask your permission to inform your Consultant that you are taking part in the study but we will not share any information with them.

To ensure confidentiality, you will be assigned a unique participant number, and all research information about you will be held under this number, thereby making it anonymous. The audio recording from the interview will be transferred to an encrypted memory stick and destroyed once no longer needed for the study. The interview will be transcribed and anonymised, no identifiable information will be used in these transcripts. You have the right to check the accuracy of data held about you and correct errors. The information you give will only be available to the research team unless there is a concern for yours or someone else's safety. If there is any concern, the researcher will have to inform a clinician involved in your care. A password protected CD containing the anonymous written record of the interview will be kept in a locked filing cabinet in a specified office in Canterbury Christ Church University. This will be kept for 5 years.

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

The results of the study will be written up as part of a thesis for a Doctorate in Clinical Psychology at Canterbury Christ Church University. The results of the study will also be written up for publication in academic journals, your information will not be identifiable. We will ask for your consent to use anonymous quotes from your interview in published reports of the study. If you are interested, we can write to you with a summary of the results of the study.

**Who is organising the funding?**

This research project is part of a Doctorate in Clinical Psychology training programme. The research is funded by Canterbury Christ Church University.

**Who has reviewed the study?**

This project was approved by the research team at Canterbury Christ Church University. All research in the NHS is looked at by independent group of people, called a Research Ethics Committee, to protect your interests. This study has been reviewed and given favourable opinion by a Research Ethics Committee.

**How can I find out more information about the study?**

If you would like any help with understanding this information sheet or you would like to ask more questions before you make a decision, please contact Hannah Shaw by email at h.r.shaw352@canterbury.ac.uk.

Or by post:
Salomons Centre for Applied Psychology
Canterbury Christ Church University
Runcie Court Broomhill Road
Tunbridge Wells
TN3 0TF

You can also let your clinician or group facilitator know who can contact Hannah for you.

**Thank you for taking the time to read this information. You will be given a copy and a signed consent form to keep.**

## Appendix B: Group facilitator information sheet

Canterbury Christ Church University

Salomons Centre for Applied Psychology

Participant Information Sheet (group facilitators)

**Research title:** Understanding the therapeutic processes in liaison psychiatry acceptance and commitment therapy groups: A grounded theory approach

**Researcher name:** Hannah Shaw

Thank you for taking the time to read this information sheet.

Hello. My name is Hannah and I am a Trainee Clinical Psychologist at Canterbury Christ Church University. I would like to invite you to take part in a research study. Before you decide it is important that you understand why the research is being done and what it would involve for you. It is divided into two parts. Part 1 tells you the purpose of this study and what will happen to you if you take part. Part 2 gives you more detailed information about the conduct of the study. Please ask me if there is anything that is not clear or if you would like more information.

### PART 1

### What is the purpose of the study?

The purpose of the study is to understand more about the therapeutic processes involved in trans-diagnostic groups within liaison psychiatry services that use an acceptance and commitment therapy (ACT) model. As part of this project we would like to speak to both individuals who have attended these groups and clinicians who have facilitated these groups. We would like to hear about your experience of running these groups, if you noticed any changes over the course of the groups, what aspects you perceive as helpful and to explore whether the group could be different in anyway.

### Why have I been invited?

You have been invited to take part in this study because you have had experience of running ACT groups within a liaison psychiatry service.

### Do I have to take part?

You do not have to take part it is up to you to decide to join the study. Your participation is completely voluntary. It is important that you read this information and decide if you would like to share your experiences. You are free to withdraw at any time, without giving a reason.

**What will happen to me if I take part?**
You will be contacted by Hannah (Trainee Clinical Psychologist) and invited to attend an interview at a mutually convenient time. The interview will be face to face and held at the Department of Psychological Medicine or at another location if that is not possible. At the interview, you will be asked to sign a consent form. You will be given a copy of the consent form to keep, alongside this information sheet for future reference.

Interviews will last around 90 minutes. You will be asked questions about your experience of facilitating the ACT groups. The researcher will have prepared some questions but please feel free to talk openly about your experience. The interviews will be audio-taped so that the researcher can accurately record what you say. At the end of the interview, you will be free to ask any questions that you may have. If you agree, you may be invited to attend a follow up interview, which will either be conducted face to face or by telephone.

**What are the possible disadvantages and risks of taking part?**
The interview will ask you about your experience or running the group. If the group has presented challenges or raised concerns, this may bring up difficult thoughts and feelings, which could be upsetting to talk about. The researcher will conduct the interviews in a warm and sensitive manner and be responsive to this. You are welcome to stop the interview at any point. You will also be offered a follow up telephone call with the researcher.

**What are the possible benefits of taking part?**
By taking part in this research it will give us the opportunity to learn more about trans-diagnostic ACT groups. This will allow us to gain a better understanding, which may influence future psychological treatments offered. We hope that you will enjoy talking about your experiences and sharing your views.

**This completes Part 1.**
**If the information in Part 1 has interested you and you are considering participation, please read the additional information in Part 2 before making any decision.**

## PART 2

**What will happen if I don't want to carry on with the study?**
You are free and able to withdraw from the study at any time, without giving a reason. If you decide to withdraw from the study, we will ask you if we can still use your interview. If you say no, we will delete all records of the data you have given us. It will only be possible to destroy interview data collected prior to analysis.

**What if there is a problem?**
We do not expect any problems to arise, however, any complaint about the way you have been dealt with during the study will be addressed.

If you become distressed during the course of the study there will be support available to you from the researcher and clinical team.

If you have a concern about this study, please contact me by email on h.r.shaw352@canterbury.ac.uk. I will do my best to answer your questions. If you remain unhappy and wish to complain formally, you can do this by following the Canterbury Christ Church University complaints procedure and contacting:

Professor Paul Camic
Research Director
The Department of Applied Psychology
Canterbury Christ Church University
Broomhill Road, Southborough,
Tunbridge Wells, Kent, TN3 0TG.
Email: paul.camic@canterbury.ac.uk
Telephone: 01892 507773

**Will my taking part in the study be kept confidential?**
Yes. We will follow ethical and legal practice and all information about you will be handled in confidence. All information with your name and address on it will be kept securely in a locked cabinet. To ensure confidentiality, you will be assigned a participant number, and all research information about you will be held under this number, thereby making it anonymous. The audio recording from the interview will be transferred onto an encrypted memory stick and destroyed once no longer needed for the study. The interview will be transcribed and anonymised, no identifiable information will be used in these transcripts. You have the right to check the accuracy of data held about you and correct errors.

The information you give will only be available to the research team unless there is the discovery of unprofessional or unethical practice or there is a concern for yours or someone else's safety. If there is any concern, I would hope to speak to you about this before informing relevant third parties. A password protected CD containing the anonymous written record of the interview will be kept in a locked filing cabinet in a specified office in Canterbury Christ Church University. This will be kept for 5 years.

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

The results of the study will be written up as part of a thesis for a Doctorate in Clinical Psychology at Canterbury Christ Church University. The results of the study will also be written up for publication in academic journals, your information will not be identifiable. We will ask for your consent to use anonymous quotes from your interview in published reports of the study. If you are interested, we can write to you with a summary of the results of the study.

**Who is organising the funding?**

This research project is part of a Doctorate in Clinical Psychology training programme. The research is funded by Canterbury Christ Church University.

**Who has reviewed the study?**

This project was approved by the research team at Canterbury Christ Church University. All research in the NHS is looked at by independent group of people, called a Research Ethics Committee, to protect your interests. This study has been reviewed and given favourable opinion by a Research Ethics Committee.

**How can I find out more information about the study?**

If you would like any help with understanding this information sheet or you would like to ask more questions before you make a decision, please contact Hannah Shaw by email at h.r.shaw352@canterbury.ac.uk.

Or by post:
Salomons Centre for Applied Psychology
Canterbury Christ Church University
Runcie Court Broomhill Road
Tunbridge Wells
TN3 0TF

**Thank you for taking the time to read this information. You will be given a copy and a signed consent form to keep.**

## Appendix C: Participant interview schedule

**INTERVIEW SCHEDULE**
*In line with grounded theory interview questions may change as study develops. Parts A and B are possible prompts following each question.*

*Hello, my name is Hannah, thank you for agreeing to meet with me today as part of some research that I am conducting. The purpose of the research is to understand more about peoples' experiences of attending acceptance and commitment therapy (ACT) groups offered through psychiatric liaison services. I will ask you a number of questions but please feel free to talk as openly as possible about your experiences. I would like to ask you about how the group was, if you noticed any changes as a result of attending and if it has had any impact on your everyday life. You are welcome to stop the interview at any point and you only have to respond to the questions that you are happy to answer. The interview will not last longer than 60 minutes but please stop me if you would like to take any breaks during that time. Please could you read this consent form to ensure you fully understand what this study involves before agreeing to take part. If you are happy, please sign here. I hope that all makes sense; do you have any questions before we start?*

**Ask about demographic information:**

1. **What led you to start attending the ACT groups?**
    a. How did you feel about group therapy?
    b. What were things like before you started attending?

2. **What were your expectations for the group?**
    a. How did you feel about starting the group? Have you been to groups before?
    b. Have you had any previous experience of ACT?

3. **What was it like in the group at the beginning?**
    a. How did you feel? Was it enjoyable or difficult?
    b. What did you talk about? What did you think?

4. **Can you tell me about your experience of the group in general?**
    a. How did you find the structure/topics/discussion?
    b. What thoughts or feelings came up for you?

5. **Did you notice any changes over the course of the group sessions? What do you think led to that change?**
    a. When did you start to notice change?
    b. What do you remember about that time?

6. **How did you find sharing your experiences with other group members?**
    a. Was it easy/difficult?
    b. Were there any similarities or differences between participants?

7. **How did you find doing the exercises? What impact if any did they have on you?**
    a. Were any of the exercises particularly helpful or unhelpful?
    b. Do you practice outside of the sessions e.g. mindfulness?

8. **How would you describe the role of the facilitator?**
    a. How did they respond to the individual?
    b. How did they respond to the group as a whole?

9. **What was it like towards the end of the groups?**
    a. How did you feel about the group as you prepared to say goodbye?
    b. How did it compare to the start?

10. **What do you remember most about the group now?**
    a. What is the most significant memory you have?
    b. How do you feel about your experience?

11. **Have you noticed any changes in your life since attending the groups?**
    a. Has the group changed the way you see your difficulties?
    b. What have you noticed? What have others noticed?

12. **Has the group had any other impact on your day to day life that we have not already discussed?**
    a. Do you use any ideas from the group in your everyday life? If yes, what?
    b. If no, why? What do you think the barriers are?

13. **How does this group compare with other groups?**
    a. Did it meet your expectations?
    b. Would you recommend it to a friend?

14. **Are there any further comments you would like to make? Anything to add that we have not discussed?**

## Appendix D: Facilitator interview schedule

<u>**INTERVIEW SCHEDULE**</u>
*In line with grounded theory interview questions may change as study develops. Parts A and B are possible prompts following each question.*

*Hello, my name is Hannah, thank you for agreeing to meet with me today as part of some research that I am conducting. The purpose of the research is to understand more about peoples' experiences of attending ACT groups offered through psychiatric liaison services. As part of this I am interested in hearing about your experience of facilitating and managing the group. I will ask you a number of questions but please feel free to talk as openly as possible about your experiences. I would like to ask you about how the group was, if you noticed any changes over the course of the sessions and what if anything could be different about the group. You are welcome to stop the interview at any point and you only have to respond to the questions that you are happy to answer. The interview will not last longer than 60 minutes but please stop me if you would like to take any breaks during that time. Please could you read this consent form to ensure you fully understand what this study involves before agreeing to take part. If you are happy, please sign here. I hope that all makes sense; do you have any questions before we start?*

**Ask about demographic information:**

1. **How long have you been co-facilitating ACT groups?**

2. **What were your expectations for the group?**
    a. How did you feel about starting the group?
    b. Have you had any previous experience of ACT?

3. **What was it like in the group at the beginning?**
    a. How did you feel? How did you manage the first session?
    b. What did you think about the group?

4. **Can you tell me about your experience co-facilitating the group in general?**
    a. What group processes did you become aware of?
    b. What thoughts or feelings came up for you?

5. **Did you notice any changes over the course of the group sessions? What do you think led to that change?**
    a. When did you start to notice change?
    b. What do you remember about that time?

6. **Can you think of any aspects of the group that you found difficult to manage?**
    a. How did you respond? How did you feel?
    b. Could anything have been different?

7. **What do you perceive to be the most helpful aspect of the group?**
    a. What stands out for you?
    b. What did participants respond well to?

8. **How did you find teaching the exercises? What impact did they have?**
    a. How did people respond?
    b. How did you feel about the balance between exercise and discussion?

9. **How would you describe your role as co-facilitator?**
    a. How were responsibilities shared with the other facilitator?
    b. Were there any challenges or benefits to co-facilitation?

10. **What was it like towards the end of the groups?**

    a. How did you manage the ending?
    b. What did you notice?

11. **What do you remember most about the group now?**
    a. What is the most significant memory you have?
    b. Why does this stand out for you? How do you feel about your experience?

12. **Has running the group had any other impact on you personally or professionally?**
    a. Do you use any ideas from the group in your everyday life?
    b. Has it changed your clinical practice?

13. **How does this group compare to other groups you have run?**
    a. Were there shared similarities?
    b. Were there any striking differences?

14. **Are there any further comments you would like to make? Anything to add that we have not discussed?**

## Appendix E: Group participant consent form

Consent Form (group participant) – Version 2 17/01/17

Canterbury Christ Church University

Salomons Centre for Applied Psychology

Consent Form

**Title of Project:** Understanding the therapeutic processes in liaison psychiatry acceptance and commitment therapy groups: A grounded theory approach
**Name of Researcher:** Hannah Shaw (h.r.shaw352@canterbury.ac.uk)

1. I confirm that I have read to information sheet dated 17/01/17 (Version 2) for the above study. I have had the opportunity to consider the information, discuss this with the researcher and ask any questions I have. ☐
2. I understand that my participation is voluntary and that I am free to withdraw at any time without giving any reason, without my medical care or legal rights being affected. ☐
3. I understand that my data will be treated as confidential. However, if the researcher becomes aware of any risk to myself or others during the study, it may be necessary to pass this information onto my clinical team. ☐
4. I give permission for my Consultant to be informed that I will be taking part in the study. ☐
5. I agree to the interviews being audio recorded. ☐
6. I agree that I can be contacted in future for one follow up interview. ☐
7. I agree that anonymous quotes from my interview being used in published reports of the study. ☐
8. I agree to take part in the above study. ☐

| | | |
|---|---|---|
| Name of participant | Date | Signature |
| Name of person taking consent | Date | Signature |

## Appendix F: Group facilitator consent form

Consent Form (group facilitators) – Version 2 17/01/17

Canterbury
Christ Church
University

Salomons Centre for Applied Psychology

### Consent Form

**Title of Project:** Understanding the therapeutic processes in liaison psychiatry acceptance and commitment therapy groups: A grounded theory approach
**Name of Researcher:** Hannah Shaw (h.r.shaw352@canterbury.ac.uk)

2. I confirm that I have read to information sheet dated 17/01/17 (Version 2) for the above study. I have had the opportunity to consider the information, discuss this with the researcher and ask any questions I have. ☐

3. I understand that my participation is voluntary and that I am free to withdraw at any time without giving any reason. ☐

4. I understand that my data will be treated as confidential. However, if the researcher becomes aware of any unprofessional or unethical practice or there is a concern for mine or someone else's safety, it may be necessary to pass this information onto relevant third parties. ☐

5. I give permission for my clinical supervisor to be informed that I will be taking part in the study. ☐

6. I agree to the interviews being audio recorded. ☐

7. I agree that I can be contacted in future for one follow up interview. ☐

9. I agree that anonymous quotes from my interview being used in published reports of the study. ☐

10. I agree to take part in the above study. ☐

| | | |
|---|---|---|
| ____________________ | ________________ | ____________________ |
| Name of participant | Date | Signature |
| ____________________ | ________________ | ____________________ |
| Name of person taking consent | Date | Signature |

## Appendix G: Demographic questionnaire

Demographic Questionnaire – Version 1 18/12/16

Canterbury Christ Church University

Salomons Centre for Applied Psychology

Demographic Questionnaire

Do you give consent to sharing your demographic details…………………YES/NO

Participant ID: ______________________

Age:

| | | | |
|---|---|---|---|
| 18 – 20 years old | | 51 – 55 years old | |
| 21 – 25 years old | | 56 – 60 years old | |
| 26 – 30 years old | | 61 – 65 years old | |
| 31 – 35 years old | | 66 – 70 years old | |
| 36 – 40 years old | | 71 – 75 years old | |
| 41 – 45 years old | | 76 – 80 years old | |
| 46 – 50 years old | | 81 years or older | |

Ethnicity:

| | | |
|---|---|---|
| White | British | |
| | Irish | |
| | Gypsy or Irish Traveller | |
| | Other European (please specify): | |
| | Any other white background, please state: | |

| | | |
|---|---|---|
| Mixed/multiple ethnic groups | White and Black Caribbean | |
| | White and Black African | |
| | Asian and Black Caribbean | |
| | Asian and African | |
| | White and Asian | |
| | Any other Mixed/multiple ethnic groups please state: | |

| | | |
|---|---|---|
| Asian/Asian British | Indian | |
| | Pakistani | |
| | Bangledeshi | |
| | Chinese | |
| | Japanese | |
| | Any other Asian background please state: | |

| | | |
|---|---|---|
| Black | Caribbean | |

| | | |
|---|---|---|
| | African | |
| | British | |
| | Any other Black/African/Caribbean background please state: | |

| | | |
|---|---|---|
| Other ethnic group | Arab | |
| | Turkish | |
| | Any other ethnic group, please state: | |

| | |
|---|---|
| Prefer not to say | |

Diagnosis:

Do you have a physical or mental health diagnosis?

| | |
|---|---|
| Physical health | |
| Mental health | |
| Prefer not to say | |

How many sessions have you attended?
______________________________________________

How long ago did you attend the groups?
_____________________________________________

## Appendix H: Coded transcript

*This has been removed from the electronic copy*

## Appendix I: Example memos

Example early theoretical memos to demonstrate my thinking following initial analysis of participant interviews and emerging categories

[P1] The participant spoke about their motivation for attending was to help improve depression and MS. I noticed throughout the interview, the participant frequently coming back to the idea that the groups were too short. It appeared difficult for the participant to step back from this, I wondered if this reflected their current low mood or actual experience of the group. The participant started to improve but was unable to maintain this outside of the group, the group offered protective time to look after himself and dedicate time to care. His expectation that problems would go away not met, holding high expectations that the group would fix everything. They were optimistic that group would have greater effect than it did. The participant suggested that the length of the group reflect a less positive outcome, with the length of sessions needing to reflect the chronicity of his illness. They stated that they had learnt a lot of valuable things and enjoyed sharing experiences with other group members [therapeutic benefit of sharing problems with the group]. It appeared depression meant it was hard to put things into practice. After the group they felt isolated and left without support. With regard to ACT they engaged most with noticing thoughts, but found it hard to use skills in everyday life. Overall, on reflection they enjoyed the sessions and had good attendance. However, when they ended they were overwhelmed by other problems so self-care was not prioritised, difficulty putting worries aside. The participant appeared to have difficulty applying ACT to reduce some of the worry, instead needing the worry to reduce before ACT can be applied. The participant valued learning skills alongside sharing experiences. They said they had difficulty staying in the present moment, but were aware of its benefit. The participant was surprised how much was learnt, ACT was easy to attend to the information, the information was interesting and accessible. Realising certain actions will be beneficial but struggling with doing them.

[P2] For this participant reason for engagement was lots of difficult life experiences [socially anxious for which group settings are a challenge, self-conscious and highly aware of tremor]. They were open to seeking psychological support. Mindfulness exercises had positive impact during the group, willing to engage with difficult feelings in the session, however, difficult to practice outside of the sessions, but recognise the benefit, the group offered a space to commit to practice. ACT was powerful through defusion exercises and learning that thoughts are not facts, PoB metaphor. Most significant change occurred for the participant post group. They acted on commitments made in the group outside of the group. The group facilitated behaviour change outside of the sessions. This participant held an awareness that ACT could offer techniques but not fix all problems. On hearing other difficulties, the felt that situation is not as bad as others. They appreciated the facilitators role in working through stuck feelings and they left the group with increased optimism. The participant said they increased in confidence – both speaking in the group and engaging in new experiences. They were able to make sense of meaning behind experiential exercises [accessible]. The group encouraged participant to do something different, to feel less stuck, and that they can make changes to their situation, embracing new experiences. They said they have learnt to enjoy and appreciate the moment, don't rush through life. The sessions finished too soon but the participant saw the group as a start. They discovered which elements were controlling their life and gained a new perspective on what is important in life. There was a therapeutic benefit of talking and sharing problems and finding new ways of communicating feelings and letting things out.

[P5] The participant was aware that going to patient groups mean you don't know who might attend and therefore have to be patient to what people might be bringing emotionally. They said it would be beneficial to offer a gradual ending, as it felt abrupt. They described patients helping patients as a valuable part of the group process. For them, they went back each week for the people not the ACT. As the group developed they moved from the formal to the informal and it was a chance to open up and get things off your chest, which had therapeutic benefit [cleansing to tell others how you are feeling]. Reassuring to know support is there if you need it and that you are not alone. At the start of the a group, you need to ease people in and then ease them out, you don't want people leaving more agitated than when they arrived [mindfulness exercises achieved this]. He said attending a group helps him feel a part of something and less cut off, as for men there is a lot of stigma in talking about feelings. He described the group process as building a team together despite suffering from different illnesses and everyone left the group smiling and asking for more. He found that people in the group wanted to support each other and create a sense of belonging. ACT was down to earth in helping to bring people together.

More advanced memos linking and developing categories

[P6] The group made the participant feel that everyone was on the same level and you could talk without being judged. The PoB metaphor was powerful in helping participant to reflect on own life and start to make changes e.g. getting a job. Listening to other experiences put their own difficulties in perspective and felt sorry for others. Looking back on the group he remembered the people and their stories. ACT was informative and helpful. **[Values]***The ones that take action appear to have got more out of the group, whereas those who report not being able to because more problems came along are less satisfied. Everyone attending the group was seeking help and they were there off their own back. Everyone got something different from the group depending on their situation.* The group atmosphere and people made it ok to open up but it was a risk to step out of comfort zone and share. Metaphor resonated and enable participant to take better control of their own life. **[Post group change]** *The biggest change happened after the group, increased positivity led to increased action. Taking time to digest exercises, as the session went on it all started to fall into place.* Get more out of groups as there is equal participation, feel less judged that one to one therapy. **[Expectations]** Did not expect group to be a cure but it was worth giving time for. Left the group feeling more positive and then acted on it. **[Group benefit]** *Employment and group gives people a purpose and reason to get up.*

[F3] **[Usefulness of ACT]** *ACTs practical tasks in the group help as the focus is not just on talking, likely that they help to ease people in and give a focus*. Defusion exercise appeared to be the most powerful one for participants, as a facilitator most change observed from this. **[Role of facilitator]** *People respond better in nice environment, thinking about the space around you and how that makes people feel.* People really committed to attending despite limiting physical health conditions, employment and child care issues, possibly a sign of how useful people found it. The group moved from the formal to informal appeared to change around the mid-point. When participants know what to expect helps to reduce anxiety. **[Connecting with others/sharing experiences]** *"I think the model wasn't something people necessarily came back for, it was the people, those people in the group and being able to share their experiences with people who understood. Um, I think feeling understood probably was one of the most important aspects"*

## Appendix J: Theoretical diagrams

*Diagram 1*

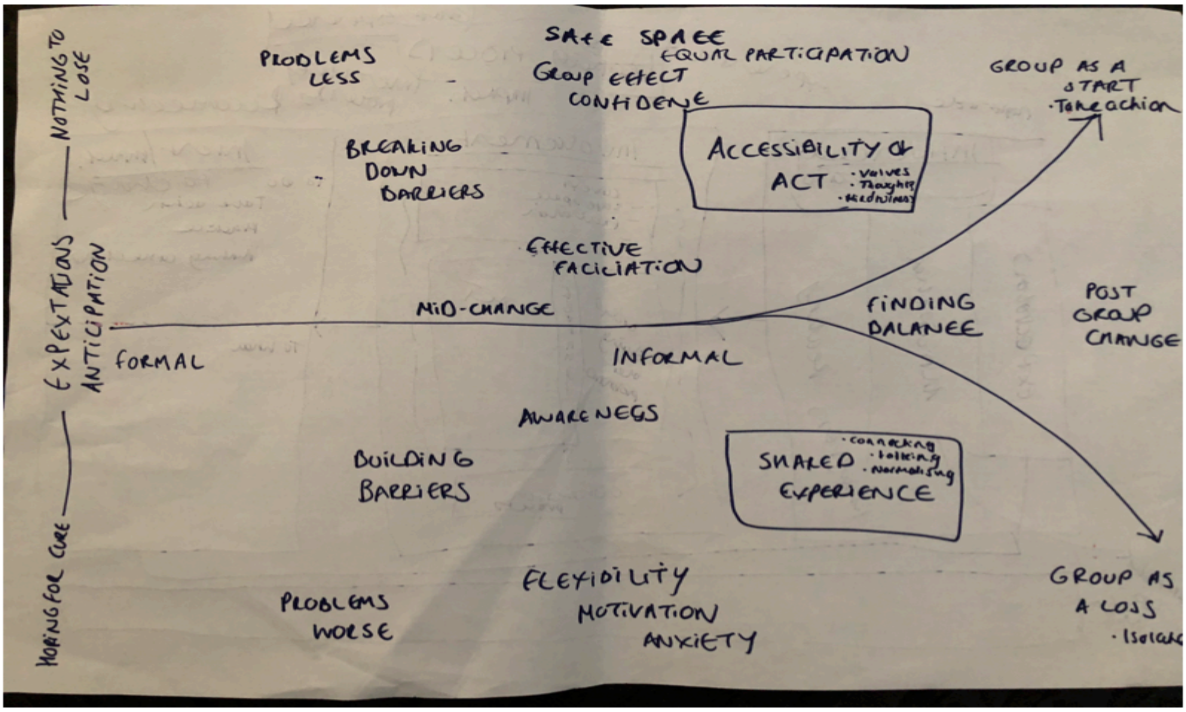


*Diagram 2*

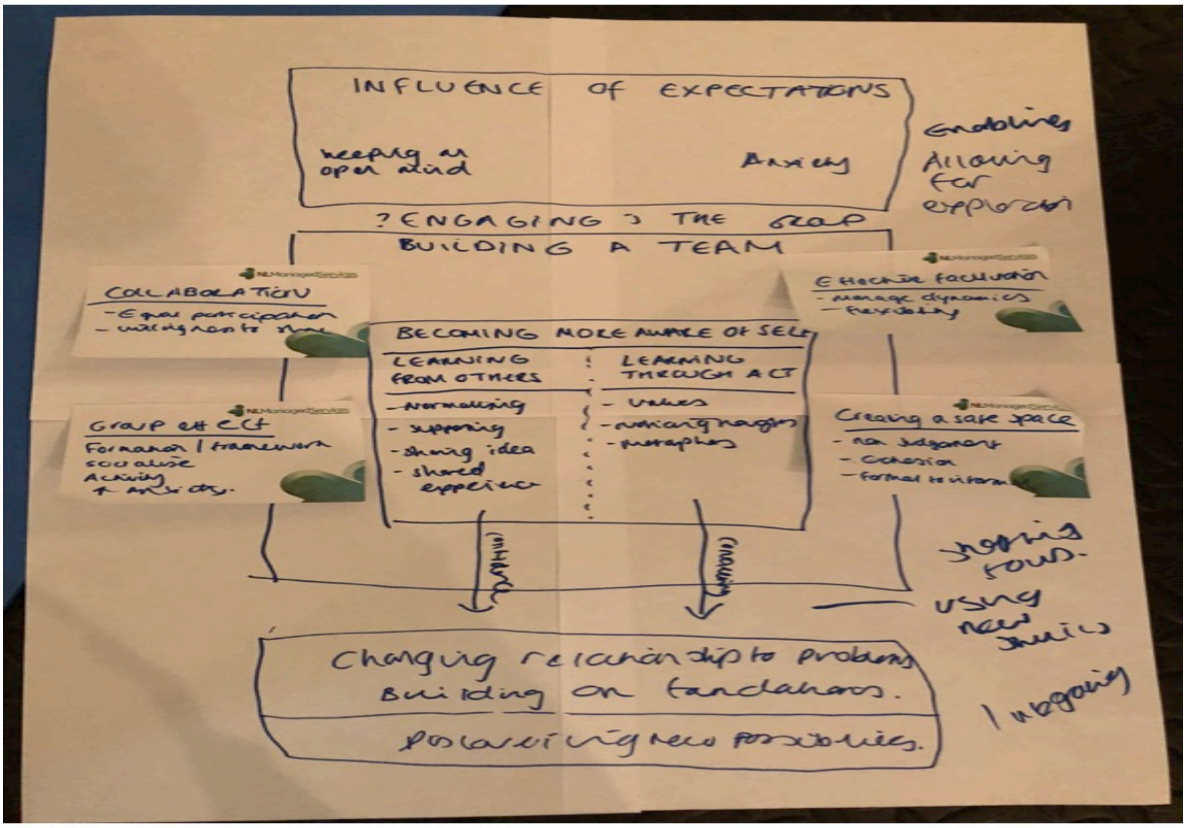


*Diagram 3*

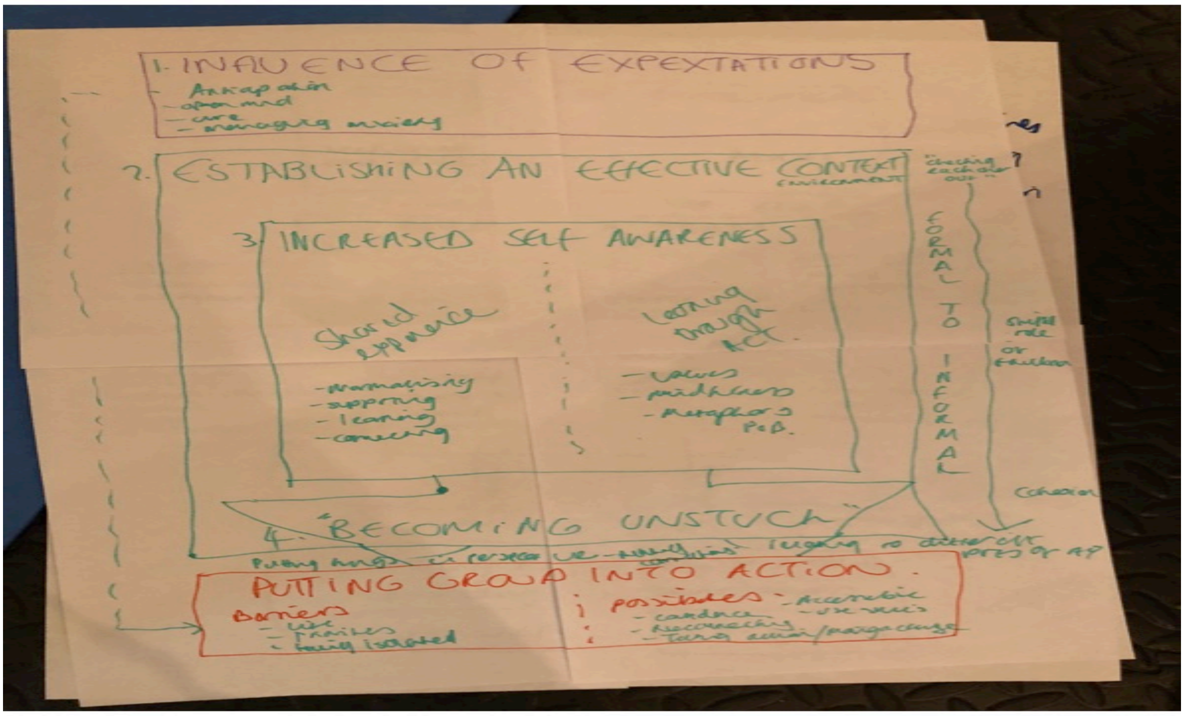
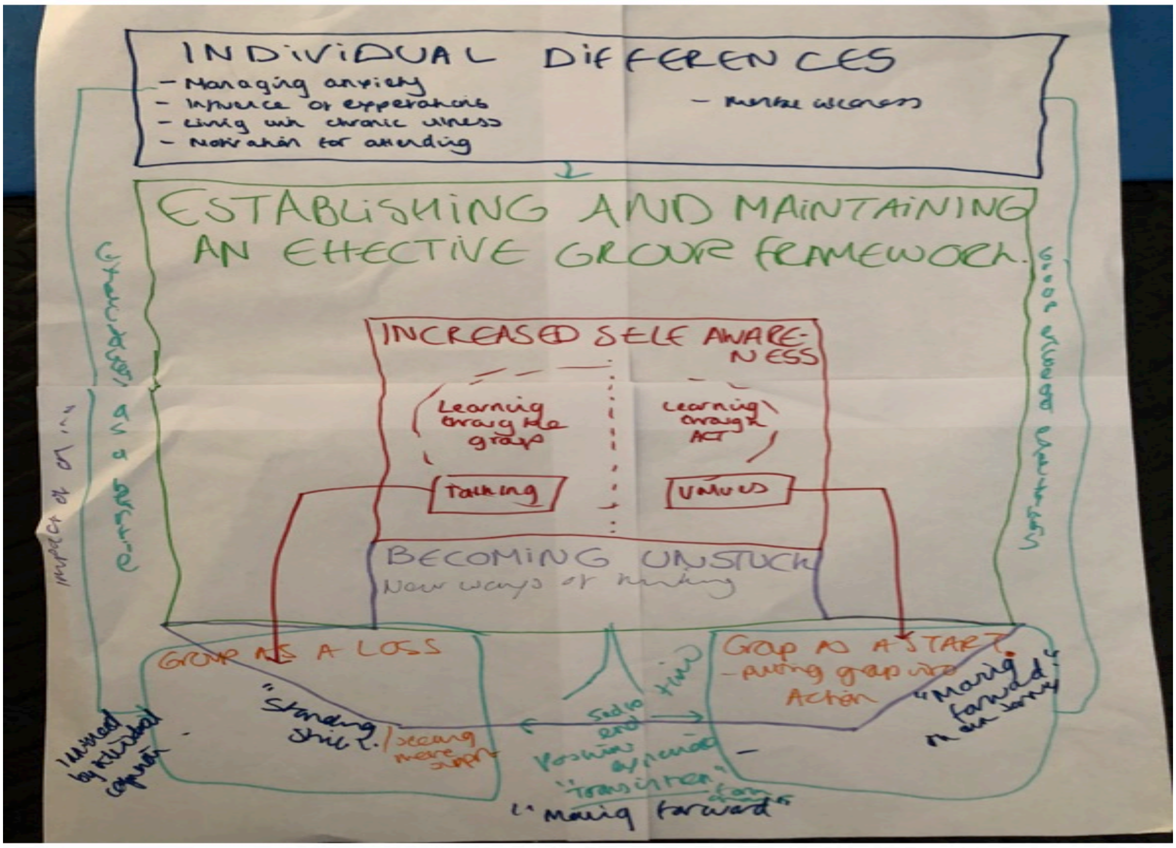


*Diagram 4*



## Appendix K: Abridged research diary

| Date | Entry |
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| November 2015 | I attended the research fair at Salomons. I went with a fairly open mind and did not have a fixed idea with regard to the type of project I would like to do, but I was looking for something related to mindfulness and wellbeing. There were a few projects presented that sparked my interest, one looking at the effect of the physical environment on health and wellbeing and another looking at the experience of mindfulness groups for people with breast cancer. |
| December 2015 | I spent some time thinking over the ideas presented and looking through the research fair handbook. There were many more projects listed here, but not many in the area I was interested in, which helped to narrow things down fairly quickly. One project listed in the handbook that had not been presented was around evaluating the efficacy of ACT for life groups. On placement I was co-facilitating ACT with compassion focused group for carers of service users with psychosis. I was really enthusiastic about these therapy models that were completely new to me. The proposal was for a mixed methods design, comparing a disease specific group with a trans-diagnostic group. I found I was really drawn to this project so made contact with the external supervisor to arrange to meet to discuss it further.<br>I found out that another Salomons trainee had also expressed an interest in this project. I felt disappointed about this and it made me realise how much I wanted to do the project, as there were no other proposals in this area. To my relief, during a telephone conversation with Dr Renata Pires (External Supervisor) she was really enthusiastic about a number of ideas in this area and explained that there was scope for us both to take on a research project with her. Renata sent through some more information about the ACT group and we arranged to meet in the new year.<br>Following this initial telephone conversation I then contacted Dr Fergal Jones, based on his interests to see if he would supervise the project. The initial proposal was to evaluate the efficacy of ACT for life groups, by comparing a disease specific group with a transdiagnostic group. It was really useful to talk this over with Fergal with regard to it sounding very much like an RCT and how feasible that would be. Dr Jones had a number of requests regarding other projects, but was open to discussing things further. |
| January 2016 | Myself and the other trainee met with Dr Pires to discuss the ACT for life project and formulate some ideas around two distinct and feasible MRP's. We both read lots around both ACT and long-term |

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| | health conditions and drafted two projects. We requested feedback as to whether a) the two projects are distinct enough from each other? b) the two projects are feasible and passable as MRP's? **Possible research question:** What are patients' experiences of attending a trans-diagnostic ACT group with psychiatric liaison services? **Possible research question:** What are the outcome priorities of services users who attend ACT groups within psychiatric liaison services? |
| February 2016 | Feedback was that in principle, both projects could make viable MRPs and they seemed sufficiently distinct (as they are addressing different questions, using different methods). However, there were a few caveats to think about and both projects needed developing. At this stage Dr Jones confirmed that he could be my internal supervisor. I was really pleased about this and excited to work up the projects more comprehensively. |
| March 2016 | We both carried out a number of literature searches to confirm where the gaps in this area were and liaised regularly. Following a Skype call with Dr Jones on 16th March 2016 we agreed that I would take on the project that was specific to the ACT group and use a grounded theory methodology to understand more about the therapeutic processes of these groups from the participants perspective. Thankfully myself and the other trainee were both drawn more to different proposals so there was no need to compromise on who would do each one – relief! |
| April 2016 | I worked on a draft of my MRP proposal form and met with Fergal to discuss this. It was really helpful to be able to focus on one specific area now and get a greater understanding of the ACT literature and think about what value this project could add. |
| May 2016 | MRP proposal form submitted to Salomons. It was agreed that Dr Jones and Dr Pires would co-supervise the project, rather than a first and second supervisor. |
| June 2016 | I had my MRP review today. It was quite nerve wracking as the assessor asked me to stand up and use a flip chart to present the proposal to them. |
| July 2016 | Unfortunately the project was not approved, a number of revisions were recommended, especially in relation to the methodology. I explored IPA and grounded theory, but after a lot of consideration I felt my rationale for choosing grounded theory over IPA was sound and thankfully the amendments were approved! Next step to start thinking about ethics. |
| September 2016 | I met with Dr Jones to talk about applying for NHS ethics. Having never done anything like this before it felt quite daunting, but it was really useful to think about timelines and make a plan for something to work towards. |
| October 2016 | I was so surprised by how much there was to consider and complete in terms of paperwork when applying for ethics, but I made a start, |

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| | breaking it down into a section at a time so not to get overwhelmed. The IRAS form is so long! But I am glad to be making a start on it now, there is still plenty of time. Following on from the Salomons review this process made me think a lot more about grounded theory methodology and the epistemological position I might take and how this will therefore influence my analysis. |
| November 2016 | I made contact with the Trust's R&D Department to find out about the process of approval with them alongside the IRAS form. The team were extremely helpful and sent over lots of protocol information. This was really useful both in terms of R&D and HRA. Thankfully there were not any additional documents, it was just a case of emailing over my completed IRAS form and the documents I would be submitting alongside this (e.g. Protocol, participant information sheet and consent form).<br>I contacted a service user form the Salomons Expert Advisory Group (SAGE) to discuss my interview schedule. I was able to meet with someone who had similar experiences to the participant pool and their feedback was really valuable. It was really useful to reflect on the types of questions I was asking. I felt more confident about my interview schedule before submitting to ethics. |
| December 2016 | Finally submitted my IRAS form! I was really nervous that I would get something wrong, in terms of timing and signatures. The application was submitted for a panel review. During the process of the study been validated a number of amendments had to be made to the work and a few documents had to be revised. |
| January 2017 | Great news, I have been given ethics approval. I received a favorable opinion letter and I am now awaiting HRA approval. The Trusts R&D department have been completing their checks in parallel so I hope to receive a response shortly. |
| February 2017 | HRA approval granted and all checks completed. I am really excited to get started with the project. I have arranged to meet with Dr Pires and a co-facilitator of the ACT group to discuss recruitment.<br>Really useful meeting, the I have sent all of the participant information to the co-facilitator who will inform the participants of the most recent group when she meets with them for a feedback session. She has also agreed to be interviewed for the study. |
| March 2017 | I carried out my first interview with one of the group facilitators. I was quite nervous but keen to see how the interview schedule would be received. The interview went really well and the information that came up with regard to group processes was very interesting. The account was very positive and I was interested to see if the participants experienced the group in the same way.<br>First participant interview. Again, this went really well. I was mindful of using the interview schedule as a guide whilst following up on |

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| | different topics that came up as the interview progressed. I wanted the participant to feel as comfortable as possible. I came away from the interview wondering what impact the participants current mental state had on how they perceived their experience. I noticed that their mood seemed quite low and how following the group this appeared to be a barrier to reengaging with the material.<br>I conducted a second participant interview and second facilitator interview. As these interviews all occurred within quick succession I did not have time to transcribe each interview in full before conducting the next one. Therefore, I listened back to the interview and made reflective notes and revised my approach towards subsequent interviews. Interestingly, the second facilitator had experienced the group in a similar way to the first and was struck by the same processes. The second participant interview was very different from the first. I was amazed at what a positive impact the group had appeared to have for this person and how much they had integrated the ideas into their everyday life. |
| July 2017 | Unfortunately, the next ACT group planned for summer fell through due to low participant numbers. The next group is planned for October/November 2017. Therefore, I continued to recruit participants who had attended the most recent group. I have coded the first four interviews line by line. I have carried out a literature search for section A and I am finalising my research question. |
| October 2017 | I carried out a fifth interview. I am really interested by the fact that so far each participant has taken something different from the ACT. For this participant mindfulness was very present throughout the discussion. I have also noticed similarities across the interviews and have been struck by the connections participants appeared to have made with each other over the course of the sessions. As everyone so far had attended the same ACT group, I was left wondering if this was a particularly cohesive group and if there was something unique about the dynamics within this group. Therefore, I was going to theoretically sample participants from different ACT groups, to see if there are any similarities or differences based on what is already emerging from the data. This means participants will a not have attended the groups as recently, but this is another area of theoretic interest to see what impact the post group has been. |
| December 2017 | Four more participant interviews and one more facilitator interview completed. Ten interviews now complete. One of these had a negative experience of the group which was in contrast to everyone else so far. I reflected on this a lot and it really led me to thinking about participants ‘expectations’ and how this is really influencing the data. I am finding writing memos and diagramming really useful ways of organising my thoughts and helping me to make sense of the data. I transcribed the first six interviews myself and coded all of these in detail. Due to then carrying out a number of interviews in |

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| | quick succession I paid to have the next four transcribed so that I could focus my attention on the analysis. I listened to these four interviews again and went through the transcript in detail, reading and re-reading before applying more focused codes to this data based on the first six interviews. I had meetings with my supervisors to discuss my initial coding initial thoughts, any bias I may have and emotional reactions to the data.<br>I have also been using the last few months to really focus on section A. I am hoping to have a draft of this finalized by the end of the month as I am finding it challenging to move between part A and B and would like with all the new data I am keen to work on this. I attended a grounded theory peer support group to talk about coding and share extracts from our transcripts. It was really useful to talk with other trainees about this and settled some of my anxieties around “am I doing this right?”. I am mindful of staying true to the data whilst following the guidelines set out by Corbin and Strauss and Charmaz. |
| January 2018 | I am starting to develop some initial categories and sub-categories. Meetings with my internal supervisor have really helped during this process and it is a good opportunity to step back from the data and think about what it is really showing. I recognise that I am really immersed in the data so talking to someone else about it has been a really important part of the process. |
| February 2018 | I have drawn out a tentative model. Another ACT group has just finished. Therefore, I am keen to carry out some more interviews of participants who have very recently finished and to see if these later interviews fit with the model I have started constructing. I continue to re-draft diagrams and move back and forth between the transcripts and the model. I have been writing section B and have received feedback on section A. Things are moving along steadily. |
| March 2018 | Three final interviews conducted, two participants and one facilitator from the most recent group were interviewed. Theses interviews were intentionally shorter than the first ten and more focused, as I have adapted the interview schedule slightly as the interviews have progressed. No new categories emerged from this data, but parts of ACT were spoken about more explicitly, particularly values across all three interviews. The categories seem to be saturated now and things are starting to fit well together. I am glad that I trusted the process as it is making sense now!<br>I shared my model with Dr Jones. The feedback was really positive. He made some suggestions for possibly renaming some of the categories to be a little clearer and more in line with what I was trying to capture. I finalized the model and sent a draft of part B to get feedback on this. |
| April 2018 | Redrafting part A and B in line with the feedback. I’m a over the word limit so need to do some final editing and refining. |

## Appendix L: HRA ethics letter of approval

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## Appendix M: R&D approval letter

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## Appendix N: Early category development

| Category | Sub-category | Code |
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| | Group structure | Timings<br>Frequency<br>Managing engagement<br>Balancing talking and listening |
| | Anticipation<br>Imagined vs reality of experience | Anxieties about facilitating<br>Anxieties about attending<br>Keeping an open mind<br>New to ACT<br>Meeting new people<br>Unable to predict outcomes<br>Feeling apprehensive<br>Hesitant about group dynamics<br>Worrying about new experience<br>Rejection<br>Feeling self-conscious<br>Expecting to share experiences<br>Own preconceptions |
| Managing expectations | High expectations | A cure<br>Very hopeful<br>Seeking high level of support<br>Problems to all go away<br>Group would change situation<br>Longing for happiness<br>Overwhelmed by symptoms<br>Unclear about what you are getting |
| Individual perspective | Low expectations | Accepting invitation<br>Relationship to help seeking |

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| | | Looking to resolve problems<br>Nothing to lose<br>Having something to do<br>Trusting professional opinion |
| | Optimistic | Others problems are worse<br>Wanting the best for others<br>Putting difficulties into perspective<br>Inspired to change<br>Optimistic about change |
| | Priorities/barriers | Putting others first<br>Putting self-first<br>Illness over wellness<br>Difficulty following through on intentions<br>Prioritising life demands<br>Problems limit engagement with ACT |
| | Reality | Meeting reduced worry<br>Sharing responsibility<br>Welcoming<br>Inviting and Friendly<br>Showing care and kindness<br>Worst fears discounted<br>Worrying thoughts dissolved |
| | Outside influences | Difficult life events<br>Feeling isolated<br>Competing life demands<br>Challenging family life<br>Financial pressures<br>Parental responsibility<br>Cutting of services<br>Difficulty accessing services |

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|  |  | Daily hassles<br>Breaking down of relationships<br>Conflicts at work<br>Social circles |
|  | Living with chronic illness | Tiring<br>Lacking energy<br>Feeling defeated<br>Managing multiple symptoms<br>Lonliness/isolated<br>Wanting to end life<br>Physical impact<br>Coping with distress<br>Conscious of motor changes<br>Worsening health<br>Lots of investigations<br>Different levels of chronicity<br>Multiple services to engage with |
|  | Overcoming anxieties | Planning<br>Negotiating leadership<br>Supporting each other<br>Social anxiety<br>Arriving alone to the group<br>Seeking support<br>Taking a risk<br>Determination to succeed<br>Doing best<br>Drawing on previous experience<br>Knowing what to expect |
|  | Initial presentation – checking each other out | Quiet and tentative<br>Relying on facilitator |

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| | | Working individually<br>Trying to illicit personal experience<br>Weighing up personal disclosure<br>Uncertain about group understanding<br>Reticent about checking understanding<br>Opportunity to remain quiet<br>Starting with exercises<br>Taking observer perspective<br>Isolated by condition<br>Bottling things up<br>Paying attention to environment<br>Feeling uncontained |
| Mid-point | Gradual change<br>Formal to the informal | Shifting role of facilitator<br>Becoming more relaxed<br>Feeling comfortable<br>Daunting at first<br>Getting to know each other<br>Wanting to be there<br>Everyone seeking help<br>Apprehensive about disclosure<br>Letting the group evolve<br>Giving each other advice<br>Less demands on facilitator<br>Gradually opening up<br>Willingness to engage<br>Making sense of difficulties<br>Doing something different<br>Relief from talking<br>Experiences validated<br>Feeling weight lifted |

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| Benefit of group format | Shared understanding | Stories and material resonating<br>Connecting with others<br>Communicating<br>Expressing emotion<br>Shared frustration<br>Social interaction<br>Collective feelings<br>Relating to others<br>Normalising<br>Offloading<br>Meeting new people<br>Giving people a chance<br>Celebrating difference<br>Not being judged<br>Being self – not putting on an act<br>Shared experiences<br>Breaking down barriers<br>Being listened to<br>Building relationships<br>Giving and receiving support<br>Benefit of talking<br>Reducing stigma<br>Stop hiding feelings<br>Showing an interest<br>Forming bonds<br>Meaningful connections<br>Learning from each other<br>Working together<br>All in this together/'not the only one'<br>Emotional connection |

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| Group experience – flexible agenda vs structure | Effective facilitation | Experiencing facilitators positively<br>Supporting role of facilitator<br>Consistency<br>Teaching delivered well<br>Opening up to the group<br>Checking understanding<br>Structure/Respectful<br>Well-paced<br>Inviting opinion<br>Enthusiastic<br>Clarifying/Thoughtful approach<br>Working towards collaboration<br>Drawing attention to thought processes<br>Creating a safe space<br>Involving everyone<br>Self-reflection<br>Using ACT principles as an underpinning<br>Sharing own experiences<br>Making time for reflection |
| Tolerance | Managing group conflict | Managing difficult dynamics<br>Dealing with disagreement<br>Diffusing situations<br>Opening up conversations<br>Power dynamics<br>Managing emotions<br>Encouraging multiple perspectives<br>Modelling different views |
| | Managing inner conflict | Uncertain about ACTs utility<br>Accepting what is out of own control<br>Struggling with uncertainty |

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| | | Feeling unfulfilled<br>Respecting others<br>Valuing difference<br>Unable to maintain initial positive effect<br>Avoiding reality |
| | Increased self-awareness/clarity | Noticing difference<br>Noticing critical self<br>Recognising own feelings<br>Differing levels of illness severity<br>Managing different personalities<br>Recognising unhelpful strategies<br>Feeling a burden<br>Increased understanding<br>Becoming more self-aware<br>Noticing small changes<br>Benefit of living in the moment<br>Relating to metaphor<br>Discovering more about yourself<br>Changing attitude<br>Reducing self-blame |
| | Awareness of others | Increased optimism in others<br>Avoiding personal disclosure<br>Spreading hope<br>Observing negative thinking<br>Demystifying mental illness<br>Reassuring others/Helping others<br>Others opening up<br>Participants helping participants |
| | Barriers to group engagement | Living with chronic illness<br>Struggling with thoughts |

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| | | Difficulty engaging with exercises<br>Avoiding difficult experiences<br>Feeling hopeless<br>Rigid thinking<br>Anxiety<br>Being misunderstood<br>Perceiving difficulty as failure<br>Feeling defeated<br>Disclosing painful thoughts<br>Embarrassing to share<br>Regulating how much to share |
| Safe space | Enabling group engagement/breaking down barriers | Noticing response to thoughts<br>Participants becoming more aware<br>Pleasing to see increased awareness<br>Increased confidence/interaction<br>Practical exercises<br>Smiling and greeting each other<br>Repetition of material<br>Having humour<br>Consistency across session<br>Showing understanding<br>Breaking down barriers<br>Enjoyment<br>Accepting advice<br>Valuing support<br>Peer mentoring<br>Inviting opinion<br>Willingness to participate<br>Obtaining feedback<br>Valuing personal experience |

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| Building a team | Balance – being flexible<br>Moving from the individual to the group<br>Breaking down barriers | Equal participation<br>Developing own identity<br>Being inclusive<br>Encouraging multiple perspectives<br>Talking and learning<br>Responding to participant need<br>Responding to group need<br>Using co-facilitation<br>Allowing for individual support<br>Ensuring everyone is attended to<br>Regulating content<br>Giving individual time<br>Giving each other advice<br>Peer mentoring<br>Wanting to share more personal stories<br>Responding to individual need |
| Flexibility | Group effect/group mind | Being in tune with each other<br>Revaluating expectations<br>Bringing together different experiences<br>Learning about LTC<br>Activating new thinking<br>Sense of belonging<br>Trusting others<br>Wanting more sessions<br>Knowing support is there<br>Challenging to be in a group<br>Anxiety amplified<br>Positive experience<br>Benefit of being in a group<br>Gaining support |

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| | | Holding group in mind<br>Giving full attention to group<br>Committing to goals in front of audience<br>Mid-point change<br>Being a part of something<br>Not being cut off |
| | Overwhelmed by problems | Focusing on problems<br>Self-critical voice<br>Negative thinking<br>Trying to get rid of problems<br>All or nothing<br>Unable to apply learning<br>Difficulty distracting from problems<br>Worrying about the future<br>Increasing problems<br>Worrying about others<br>Problems are too big<br>Feeling trapped<br>Others have fewer problems<br>Feeling worse off than others<br>Distracting self from problems<br>Avoiding social interaction<br>Fearing being alone<br>Losing control<br>Blaming self<br>Trying to get rid of symptoms<br>Feeling a failure<br>Interpreting difficulties as unmanageable<br>Seeing problems as setbacks |

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| Relating differently to problems/changing relationship to problems | Becoming unstuck | Deliberating actions<br>Weighing up outcomes<br>Taking action<br>Moving forward<br>Listening to others<br>Finding closure<br>Shifting focus<br>Inviting new perspectives<br>Redefine what is important<br>Increased confidence<br>Breaking problems down<br>Feeling understood<br>Distancing self from worry<br>Letting go of worry<br>Responding to worry<br>Willingness to try something new<br>Willingness to engage in groups<br>Looking at life differently |
| | Motivation for attending | Social activity<br>Something to get up for<br>Learning new skills<br>Wanting to live a more meaningful life<br>Reducing isolation<br>Living with chronic illness<br>Managing symptoms<br>Not giving up<br>Cleansing to share<br>Knowing what to expect<br>Consistency<br>Willing to face up to difficulties |

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| | | Searching for understating<br>Seeking support<br>To improve mood<br>Making time for self<br>Coming back for the people<br>Commitment |
| Learning process  - taking something form the group | Valued goal setting | Achievable<br>Tangible<br>Making small changes<br>Enjoying employment<br>Doing activities in line with values<br>Committing to goals in front of audience<br>Doing what matters<br>Goals ensure stability |
| | Gaining confidence | Completing and achieving goals<br>Being assertive<br>More socially confident<br>Boosted self esteem<br>Encouraged to take a course<br>Encouraged to find employment<br>Being too hard on self |
| | Enlightenment | Finding new meaning<br>Discovering new ways of relating to illness<br>Recognising similarities<br>Allowing space for difficult emotions<br>Seeing a new way of thinking<br>Rewarding to see change<br>Alarmed by negative thinking |
| | Drawing on experience/new experience | Comparing therapy models<br>New to psychological approaches |

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| | | Instilling hope<br>Learning not to engage with negative thoughts<br>Learning to better manage thoughts<br>Better than less structured groups |
| | Noticing thoughts/relating to thoughts | Changing relationship to thoughts<br>Reducing power of thoughts<br>Altering meaning of thoughts<br>Seeing thoughts as thoughts<br>Stepping back from problems<br>Self-critical thoughts<br>Exploring thoughts<br>Saying thought aloud<br>Struggling with thoughts<br>Acknowledging thoughts<br>Battling with thoughts<br>Getting caught up in negative thoughts<br>Resisting engagement with thoughts<br>Accepting thoughts<br>Distancing self from thoughts<br>Trying to control thoughts |
| | Mindfulness | Struggling to engage<br>Difficulty staying present<br>Connecting with familiarity<br>Discovering mindfulness<br>Recognise benefit of mindfulness<br>Letting go of thoughts<br>Wandering mind/Distraction<br>Fitting into daily life<br>Connecting mind and body |

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| | | Calming at end of session<br>Deep breathing<br>Leaves on a stream<br>Using all senses<br>Slowing down<br>Present moment focus<br>Improving wellbeing<br>Grounding group in mindfulness<br>Using mindfulness to reduce stress<br>Doubting value/Not a quick fix<br>Difficulty practicing in session<br>Needing to be relaxed<br>Short-term effects of mindfulness<br>Persevering with mindfulness |
| | Accessibility of ACT | Making sense of exercises<br>Noting responses to activities<br>Benefitting from ACT<br>Learning new skills<br>Engaged with content<br>Enjoyment helped learning<br>Practical<br>Eye opening<br>Not overwhelming<br>Informative<br>Emphasising thought patterns<br>Moving between different skills<br>Connecting with ACT concepts<br>Limiting effects of ACT<br>Understanding meaning behind exercises<br>Allowing time to process learning |

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| | | Repeating exercises<br>Integrating into daily life |
| | Building on the group | Group too short to see noticeable change<br>Taking new skills forwards<br>Using skills outside of group<br>Taking control of life<br>New beginnings<br>Practicing new skills<br>Difficulty maintain group learning<br>Making time to practice/Effort to practice<br>Barriers to using ACT at home<br>Encouraging individual practice<br>Planning activities/Putting off activities<br>Travelling more<br>Using ACT when distressed<br>Taking information away<br>Taking on advice<br>Accepting what is in your control<br>Using free time better<br>Physical health getting in the way<br>Overcoming obstacles<br>Finding a quiet space<br>Reconnecting with group content<br>Harder without group support<br>Stepping out of comfort zone |
| Spiralling problems | Facing isolation - group as a loss | Unemployment<br>Abrupt ending<br>Worrying about the future<br>More gradual ending<br>Hard to leave difficulties unresolved |

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| | | Wanting to do more<br>Leaving things unfinished<br>Letting people go<br>Sense of loss<br>Dealing with uncertainty<br>Losing social support<br>Feeling disappointed<br>Struggling with ending<br>Wanting to learn more |
| Problems not gone… | Post group change  - group as a start | Reconnecting at follow up<br>Time to digest information<br>Rewarding to see progress<br>Putting group into action<br>Living a more meaningful life<br>Feeling more optimistic<br>Taking action<br>Taking control of life<br>Happier after attending group<br>Sharing achievements<br>Giving hope<br>Change greater after group<br>Revisiting learning<br>Worth giving time for<br>Doing things differently<br>Celebrating ending as achievement |

## Appendix O: Final categories and subcategories with example quotes

| **Category** | **Sub-category** | **Quotes** |
|---|---|---|
| Individual differences | Apprehension | *"I was actually really, really nervous at the start"* [F1]<br>*"obviously it was a bit daunting, but you know you're meeting everyone for the first time so you do feel a little bit nervous"* [P3]<br>*"I was a little bit apprehensive. Um, the unknown. You didn't know if you was going to be judged"* [P6]<br>*"I was just a bit, you know, just didn't really know what kind of people I would meet in the group"* [P8]<br>*"I feel anxious cause I'm going to have to talk in front of other people"* [P3] |
| | Influence of expectations | *"my expectation before I started was that I am going to turn 180 degree to get really better"* [P1]<br>*"I didn't think at the time when I went that it would help me myself but anything was worth a try at that time, that's how I felt"* [P4]<br>*"I think, they were all a bit beaten down by the system (laugh), and they're literally like "ah, well, I haven't got anything else to do", or somebody they've been working with recommended it to them and they were like "oh, well somebody is thinking it might be good for me. I might as well try it"* [F3]<br>*"it was kind of a bit of a mistake actually, me going to the group. Er, I was referred by my psychiatrist, er at ***** Hospital who I was seeing to help me cope.. she put me on the ACT course. And I wasn't sure about that, er, you know, quite, in hindsight that wasn't what the, er, psychiatrist, you know, actually intended"* [P7]<br>*"I kept an open mind, so – I've never been to any any group before"* [P8]<br>*"my expectations beforehand was, um, that I would be seeing more people who had more physically challenging disabilities"* [P9] |

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| | Motivation for attending | *“basically I’ve been sick with a vestibular disorder since 2004, and erm I mean it’s literally brought my life to a standstill”* [P3]<br>*“I had erm I spent one night at a sleep clinic cause they wanted to see why sometimes I was unable to have a sound sleep and why I had the leg movements and erm I stayed one night here I was given a watch so that they could study my sleep pattern during the week and following that I saw a consultant in April that who advised me to either not do anything or to go for the ACT and that’s why I started the ACT”* [P2]<br>*“sort of facial nerve damage, so, and it could’ve – there’s not much they can actually try, do for it. So I’ve sort of been under sort of a number of consultants, um, but it’s, um, to sort of try and fix it, but there’s nothing they can sort of really do”* [P9] |
| Establishing and maintaining effective group framework | Usefulness of ACT | *“we didn’t talk about our experience but we described, we did some exercises”* [P2]<br>*“it’s that balance between, um, but having a practical task was quite helpful…but generally I think people liked the practical aspects of the group”* [F3]<br>*“following the ACT principles you know so I think the group may have been a little bit different to what they may have anticipated particularly because we did try to keep the sessions quite interactive, collaborative and erm at times even fun so I think”* [F4] |
| | Benefit of group the format | *“giving them something to get out of the house for cause a lot of them kind of struggle to get out”* [F1]<br>*“I felt that it would do me good to go and be part, be part of something. If you’re not part of something, you’ve been switched off or cut off from people”* [P5]<br>*“here were too many people. But I think it needs to be done on a, you know, a much smaller scale”* [P7]<br>*“reducing isolation and giving them a bit of routine”* [F4] |

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| | | *"you actually get the benefit from being in the ACT group, being in the group, if that makes sense. You could go to mindfulness, you don't have to be in a group to do that."* [P9] |
| | Effective facilitation | *"I think it's helpful to have more than one person there"* [F2]<br>*"You keep the light side of it and" – someone, they feel as if it's some they could trust"* [P5]<br>*"They moderated the whole thing, otherwise there would be no direction… yeah, that was, yeah, good"* [P8]<br>*"they were very good at creating that sort of atmosphere…I think they did a good job towards making that group work"* [P9] |
| | Creating a safe collaborative space | *"they kind of knew that it was quite a safe space to talk about those sort of things"* [F2]<br>*"like I say no one is there to judge you"* [P4]<br>*"it's trying to build up a bit of a team together"* [P5]<br>*"I think we sort of became more open as a group towards the end of the sessions. And you never know whether that's because you've got, you know, or whether that's because you've been together for the amount of weeks"* [P9] |
| | Commitment to the group | *"I enjoyed being there and I always tried to make sure I would be there"* [P1]<br>*"maybe one of us dropped off but everybody else came back and we talked"* [P2]<br>*"it was a good group. And the people were nice"* [P5]<br>*"We're there for the help and hopefully we was going to get the help, which we did. Well, I certainly did anyway"* [P6] |
| | Letting the group evolve | *"They were a lot quieter when we first started so I think people we're I don't know not reluctant but maybe just not as comfortable to disclose anything"* [F1]<br>*"the time went on people did feel a lot more comfortable"* [F2]<br>*"I would say maybe after two or three sessions I would say"* [P3] |

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| | | *"I mean progressively it, you know, I think the comfort level, um, rose. I I, in the first session, definitely not. I was just not comfortable"* [P8] |
| Increased self-awareness | Learning through the group<br><br>Normalising<br>Supporting<br>Sharing experiences | *"I felt I wasn't alone, a lot of people having similar problem, erm it did give me some kind of relief you know that I'm not just the one who is having that"* [P1]<br>*"to actually see other people that are struggling with different illnesses was erm interesting…cause I hadn't really spoke to other people that have got longstanding illnesses"* [P3]<br>*"kind of taking on the role of a therapist as well which I noticed and I thought that was really nice having sort of a peer mentoring thing sort of happening within the group"* [F2]<br>*"you feel that you're the only person with all these problems that are weighing you down and when you hear somebody else talk… you just think mine are insignificant to other peoples"* [P4]<br>*"personally, I felt as if it was a good chance to open up and get things off of my chest. And that keeps me going"* [P5]<br>*"there's some of them that makes you realise that your life isn't as bad as some other people"* [P6]<br>*"sort of hearing their experiences and, um, sort of comparing my experience to theirs, instead of just going to a doctor that may never have experienced what I was experiencing"* [P6]<br>*"I think it can be quite isolating with a physical health condition that takes up a lot of your life, and that kind of joint shared experience was really important for people"* [F3]<br>*"whole group experience was interesting, I mean to see that other people have similar problems or issues, is interesting"* [P8] |
| | Learning through ACT<br><br>Mindfulness<br>Defusion | *"over the course of our discussions had come to realise that a lot of the time, she was often in this battle between her thoughts and how that made her feel"* [F1] |

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| | Values | *"I've been very negative towards myself, since I got sick and when you say it out loud, like some of the thoughts I have about myself you know and in the session it made that sort of come to light just how negative I am"* [P3]<br>*"it was the bus ride and everything, and, um, you've got passengers in the back telling you what way to go and everything… people telling you what to do, what not to do, and it is a case of just getting on with your life and everything. So that did help, big time"* [P6]<br>*"I think there was one when we sort of, er, imagined a river and your thoughts going down a river. I thought that was quite nice"* [P7] *"I became more aware and more alert to my values"* [P8]<br>*"the group all had such varied presentations it felt like we were all still like through the approach kind of helping them all in their own individual way with what they were going through particularly thinking about what their values… almost didn't matter what their physical health condition were we were very much thinking forward where they could go"* [F4]<br>*"values and goals and, er, the metaphor of passengers on the bus and, you know, because, you know, when you're constantly criticising yourself, for example, of things and how to deal with it, and more importantly how to, um, recognise that you have those issues"* [P8] |
| Discovering New ways of being | Allowing a space for difficulties | *"when they're there we could acknowledge them, allow them to be there, not allow them to control us although sometimes we would be unable to control them"* [P2]<br>*"using the language of the metaphors when they were just talking so rather than saying I've had a really difficult week and I've been struggling with some of my low mood etc, they'd say I've had a lot of passengers on the bus and I'm still trying to do x, y and z in my life in spite of them"* [F4] |

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| | | *"So I actively try to keep those guys on the bus quiet from spoiling my day… And just constantly interfering with my life and, er, that worked quite well"* [P8]<br>*"with anxiety and that sort issues. It's making me trying to sit with the emotions more, and accepting them a bit more, and and not feeling – when sitting with emotions its actually feels quite painful sometimes"* [P9] |
| | Changing relationship to difficulties | *"it's just made me more aware, more understanding in a way that you know where I am you know"* [P1]<br>*"enjoy the moment and about my tremor I'm accepting it as I am also accepting my friends passing away I try not to think about my tremor most of the time"* [P2]<br>*"just problem, after problem after problem after problem… I feel good I feel the best now that I felt for 5 years even though there are still, there's a problem"* [P4]<br>*"you should achieve like money, cars, holidays rather than other things in their live that compassion, care etc and I think when some of them made that switch of like of yeah I do actually do some of those things erm and there what matter most to me that was a nice moment cause they realised they can still do things in their life that are really meaningful to them"* [F4]<br>*"the whole concept of, you know, just accepting circumstances or whatever you cannot change, and not dwell on it too much, er, was helpful, absolutely. So, um – and that you should try to just, um, live along your values as a direction"* [P8] |
| | Being kinder to self | *"sometimes you can just push yourself too far and you're doing absolutely nothing for yourself… that has been a lot of my problems in the past but now touch wood it's not so bad and I'm glad I mean I feel a lot better"* [P4] |

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| | | *“oh I'll do that today I'll do that today and I'll do something else and try and get them done and if you don't life goes on tomorrow's another day”* [P4]<br>*“be more, you know, love the self and be more compassionate with yourself and, er, all that”* [P8]<br>“I’m still very hard on myself but I don’t think I am as hard on myself I do try and remind myself that’s it’s not my fault what’s happened but it is difficult” [P3] |
| Building on the group | Integrating ACT into everyday life | “[mindfulness] *I told ***** that I had not done, I told her when I saw here a few weeks ago that I had not done it enough, that I wanted to do it but that I had not done it yet it had a positive impact on me*” [P2]<br>*“[mindfulness] I did it and then I just stopped, I sort of started it and then I didn’t continue…and I thought I’m going to give it a proper go this time, and I’m glad I did”* [P3]<br>*“get up in the morning and go set a goal to do something”* [P4]<br>*“the final session I felt a little bit more positive in myself. And, um, over the following months I was still doing the little exercises and everything. Not every day, but always doing them. And, um, fitting them in to the daily routine and everything”* [P6]<br>*“to end it well, um, and to give people something positive to look back on, um, and some resources to use”* [F3]<br>“I mean I’ve mindfulness in the past, but obviously mindfulness is part of the sort of, you know, ACT, so it was quite good to be, sort of get a refresher course in that, or get kind of kicked up the bum to go back and do that, because that is really helpful” [P9] |
| | Doing what matters | *“I do believe that my goals can be achieved I am more optimistic now after the sessions, and especially after erm doing reaching one of my goals which was to write to one of my colleagues”* [P2]<br>*“we went away on holiday this year that's the first time we went away on holiday for nine years”* [P4] |

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| | | *"positive impact on my work, because I'm okay that I may not be in line with me getting a massive promotion and being successful and getting that goal, but at least I know I can be true to myself, and that's my value"* [P9]<br>*"going away so rather than in the group, kind of going away and really kind of digesting that had happened… he'd made loads of progress which was so nice… again kind of the values type stuff so he had taken up a new hobby"* [F1] |
| Struggling without the group | Valuing the group over ACT | *"I just wish it was a lot longer and I spent more time with the group discussing you know more of our problems"* [P1]<br>*"[ACT exercises] They vary. I can't remember. Can you remember any of them, apart from the bus…I think they was, they was ok"* [P5]<br>*"without letting there be enough time for people to talk"* [P7]<br>*"And there wasn't time to explore emotion, or think about those things"* [P7]<br>*"I think the people who probably benefited most were the people who could continue practising outside of the group"* [F2] |
| | Viewing problems as too big | *"as problems come in you can't control or you can't apply what you've learnt in ACT you know cause its overwhelming problem come to you"* [P1]<br>*"in my experience it wasn't, at the time with what I was going through, it wasn't very useful because I was having quite acute anxiety. And, you know, that was just, um, yeah, general meditation techniques. Which is fine, I think, if you're mildly suffering from anxiety"* [P7]<br>*"but it kind of goes out the window when you're just feeling so bad that all you want to do is just lie there with your eyes shut"* [P3]<br>*"I think erm using some of the ACT principle can be quite difficult especially of they experience pain or a tremor that's kind of there all the time they kind it quite difficult I guess to step away from that experience"* [F2] |

## Appendix P: Passengers on the bus metaphor

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## Appendix Q: Letter to research ethics committee and R&D

Canterbury
Christ Church
University

Salomons Centre for Applied Psychology

Salomons Centre for Applied Psychology
Canterbury Christ Church University
1 Meadow Road
Tunbridge Wells
TN1 2YG

Dear Research Ethics Committee,

**Re: Completion of study IRAS project ID: 216725/REC reference 17/NE/0016**

I am writing to inform you that the above study titled ‘Understanding the therapeutic processes in liaison psychiatry acceptance and commitment therapy groups: A grounded theory approach’ has now been completed. Please find attached a summary of the research findings. Please do not hesitate to contact me if you would like any further information about the study. I aim to publish a full report of the research in due course.

Yours sincerely,

Hannah Shaw

Trainee Clinical Psychologist

CC: R&D

## Appendix R: End of study participant letter

Salomons Centre for Applied Psychology

Salomons Centre for Applied Psychology
Canterbury Christ Church University
1 Meadow Road
Tunbridge Wells
TN1 2YG

**Summary of research findings**

Dear study participants,

Thank you for allowing me to interview you as part of my research into understanding more about liaison psychiatry Acceptance and Commitment Therapy (ACT) groups. I am writing to inform you of the outcome of the study and summarise the main findings.

**Study Title:** Understanding the therapeutic processes in liaison psychiatry acceptance and commitment therapy groups: A grounded theory approach.

**Research Context:** ACT is a cognitive-behavioural intervention that aims to help people change the way they respond to their difficulties and live a more valued life. Growing evidence supports ACT as an evidence-based treatment for someone experiencing mental health and physical health difficulties. Research studies have also tried to understand more about the mechanisms through which change occurs, however, these still remain unclear. To date, no research has explored the therapeutic processes within a transdiagnostic ACT group offered through psychiatric liaison teams, where individual present with psychological difficulties in relation to their physical health condition.

**Research Aims:** This qualitative piece of research aims to develop an understanding of how individuals experience group therapy using an ACT model. By interviewing clients, it allowed the researcher to explore the therapeutic processes involved in ACT groups, as described by the participants themselves. Given that the group was transdiagnostic it was likely to be of value, reflecting how groups run in practice, as anecdotally people in groups often present with more than one health condition. Furthermore, ACT was intended by its founders to be a transdiagnostic therapy, so explorative work within this context is significant. Finally, understanding the therapeutic processes is important for the justification of this treatment.

**Method:** Nine group participants and four group facilitators were interviewed about their experiences of either attending or facilitating these groups. Interviews were transcribed and analysed in line with grounded theory methodology, so to build a theoretical model, grounded in participants perspectives to explain what was happening.

**Results:** The proposed model described as ‘the individual journey through a transdiagnostic ACT group’ was developed. Six core categories emerged to provide an explanatory framework of the processes within the group. The majority of participants experienced the group positively. A combination of group processes and ACT processes facilitated learning, through which they became more aware of themselves, by connecting to either one or both of these processes. This learning extended beyond the group setting, but change was only maintained for some after the group finished, with individual expectations and relationships to ACT, particularly values, influencing longer term gains.

**Implications:** The processes described by group participants and facilitators themselves were consistent with existing models of ACT and group process through which change is theoretically proposed. These experiential accounts however, highlighted the influence of an individual’s expectations on group outcomes, with lower expectations before the group seemingly leading to more therapeutic gains after the group. Values also played a significant role in behaviour change, as those who acted on their values, reported how this had a positive impact on their wellbeing. Clinically, the findings show that a transdiagnostic group is an acceptable intervention, with relational connections formed regardless of the different presenting conditions. Future research should focus on the role of values and committed action in the context of improving psychological flexibility, as the field has so far been dominated by the role of acceptance and mindfulness-based strategies.

Yours sincerely,

Hannah Shaw

Trainee Clinical Psychologist

Salomons Canterbury Christ Church University

CC: Ethics and R&D

## Appendix S: Journal submission guidelines

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