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Remote ACT-based integrative therapy for trauma: Exploring quality of life and psychological outcomes for young people during the COVID-19 pandemic.
A mixed-methods study.

by

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Portfolio for the Professional Doctorate in Counselling Psychology

Department of Psychology

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Lastly, I would like to thank all my friends and family, but in particular my best friend, Sarah, who has always been my emotional rock in times of doubt. My lighthouse.

Dedication

This work is dedicated to my amazing mum, Mary (1947–2020), who worked so hard for all of her life yet always retained her fighting spirit and infectious sense of fun. And to my dedicated, loving father, Matt (1927–2003), who instilled faith and spirituality in me and always advised me to ‘use the intelligence God has given me’. The resilience and love of you both has always inspired me.

Although you can’t be here in body with me at the finishing post, I feel you are with me in spirit and hope you are both proud and can look down and see that I did it, for you both.

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Preface

This portfolio contains three components: empirical research into ACT-based integrative approach as a remote intervention for 18–25-year-olds during a pandemic, a publishable paper to disseminate the research findings, and a combined case study and process report to illustrate my clinical work with a client who initially sought help for anxiety that was triggered by tinnitus and relationship issues but was also underpinned with trauma.

Part I: Research

The portfolio begins with mixed-methods empirical research I conducted via single-case experimental design (SCED) and a semi-structured interview to identify changes in trauma symptoms and multiple measures including quality of life, with four students aged 18–25 living in the community while studying at university. Adopting a pragmatic functional contextual methodology, the process involved four participants undergoing a six-week remote intervention which was a remote ACT-based integrative approach, including psychosensory and somatic experience techniques.

Here it emerged that the intervention had a reliable and significant positive effect on levels of psychological flexibility as well as quality-of-life levels, as well as other measures. The various findings of this study were examined against extant literature. Clinical and wider implications along with future recommendations were also considered.

Part II: Publishable paper

The second element of the portfolio is a paper written for the journal *Contextual Behavioural Science*. It represents a summary of Part I and includes all of the key findings of the research. This journal was selected for its explicit focus on contextual behavioural science and in particular its historical inclusion of many ACT-related studies, specifically those focused on single-case design experiments. It was also chosen as the Impact Factor of this journal is 5.138 (ranking it 28 out of 130 in *Psychology, Clinical)* and it is also indexed in

seven international databases. All of these factors were thought to further enable the findings to have a broader and more pervasive impact, reaching professionals from various fields and disciplines – such as clinical and counselling psychology, sociology, social work, educational and public health – whereby the findings can be discovered, discussed and implemented within organisations and so become further disseminated.

Part III: Clinical piece

Lastly, Part III of the portfolio is a combined case study and process report which demonstrates an integrative piece of clinical work I undertook with a female named Jenni (pseudonym), who presented with high levels of anxiety and complex trauma symptoms, including what was diagnosed to be stress-induced tinnitus. Our work together utilised an assimilative integration approach (Messer, 1992) and the theoretical perspective of this process report follows an integrative framework. There is a much evidence for the effectiveness of integrative treatment modalities for trauma (Gilbert & Orlans, 2011; Lahad et al., 2010).

Our work together revealed a deep and hidden trauma relating to loss and grief from Jenni's childhood which she had buried away, being too painful to face. Further trauma as a result of the pandemic and severe isolation from her family and friends increased the helplessness and sense of threat which she was experiencing just prior to her developing tinnitus, which felt like the final straw to Jenni.

Firstly, learning some emotional-regulation skills helped Jenni to begin to feel less overwhelmed as we then explored her emotions as well as her dreams for her life. Using TF-ACT elements, Jenni was able to plan attainable small goals between sessions, and as she achieved these she began to reframe the tinnitus as actually offering something of value to her. By the end of therapy, she was living with the tinnitus with much more acceptance and was also able to see her life change course towards longer-term goals she had been

deferring for years. Jenni's fragmented memories and fears which had been stored up somatically for years, once illuminated through therapy, became a catalyst for positive change in her life. She felt freed from the debilitating effects of her perception of the tinnitus and the anxiety which was being perpetuated by her negative perspective of it. But in order to allow her to feel safe enough to look at the deeper fears, we had to work on her safety both within sessions and between sessions, building boundaries to help her feel held. As she became more assertive in asking for what she needed in these boundaries, her fears lifted, she became more empowered and the effects of the tinnitus became less important to her.

Once Jenni had first 'faced' the internal fears in a titrated way, she then made a new meaning of the terror and its origins, and was then able to process it and go on to journey towards her chosen life. Working in a somatic and psychosensory way when needed helped her to moderate her emotions enough to then 'be with' the difficult emotions so that cognitions and language could aid in the reframing of her outlook.

Interestingly, in the research study there was also this experience of shedding light on an unknown fear, on a feeling of dread which for some participants they had had most of their lives. Working with the body as well as the mind allowed a tangible way to work with the embodied fear/trauma.

Core theme of the portfolio

The core theme running through the portfolio is *using an integrated approach to integrate the self*.

In both Part I and Part III, the approach undertaken was integrated in an idiographic way for every participant, with all presenting some kind of physiological negative responses as well as psychological ones. By utilising an integrative approach which brought awareness to the somatic state of each participant, as well as the psychological, it was possible to work at a

deep level of body memory (Rothschild, 2011; Van der Kolk, 2015), which was a more integrative way of working with the whole person.

This was a theme running through to Part III, where an assimilative integration approach allowed an organic unfolding of the therapy work which was tailored for Jenni. Working in an integrated way that included somatic and psychosensory approaches was particularly appropriate for Jenni, as she was also suffering from tinnitus, which affected her in a largely sensory way.

In Part I the work with all the participants who were experiencing trauma symptoms illustrated how, even though each participant had unique life experience and differing causes for their trauma symptoms, what permeated across all cases was fear and a sense of imminent threat. The emotional fear increased physiological arousal, and this physiological response was partly responsible for perpetuating the cycle of trauma experience and repeated experiential avoidance.

My relationship to the theme

I was drawn to the profession of counselling psychology in no small part due to my sensitivity and interest in reducing suffering. I am aware that there was a large element of Jung's archetype of the 'wounded healer' (Adler & Hull, 2014) within me. My personal experience of life to this point, as a woman of 50, had led me on a journey towards healing myself over the last 30 years. I trained as a teacher, then a shiatsu therapist, and finally retrained as a mature student in psychology. Exploring all aspects of myself has led me to explore many roles in my search for the right career, each of which has shown me an aspect of myself that I have utilised to benefit others. Yet I was always searching for answers on how to heal myself and to help others to heal, to reach their potential and lead a life well lived. There is a concept in Buddhism called *bodhichitta*, which is defined as 'the desire to reduce suffering in

others'. I am sure my own *bodhichitta* stems from my personal fragmentation of self due to various life factors and experience.

Through it all, though, I have realised the importance of being myself, accepting all parts of who I am, even those parts I disliked, and dialogue with those parts has helped me to understand what I needed. In turn, I have come to understand a little of how others might be aided to come to their own sense of wholeness.

I have learnt that life never gets easy. We cannot change what life throws at us, but what we can do (sometimes) is choose how we react to the difficulties. Sometimes we can't choose, of course, and we over-react or become overwhelmed, but ultimately there are things we can do to alter our reactions and make them responses instead of knee-jerk actions.

As I have dealt with my own trauma and seen how it has been released I understand the safety required to feel comfortable enough to share trauma with another. If I can help even one person to safely feel more whole, to be more empowered so that they can take steps towards their best and chosen life, I consider that my life has had some purpose. Empowering myself through empowering others;

My own journey towards wholeness through 'using integrative methods to integrate the self' is still ongoing. Indeed, I have lost parts of myself as I have travelled towards this point, yet following those losses I have rebuilt other parts of me, some of which are now stronger than ever. Academic learning and assignments have more firmly established my natural tendency to question and enquire. Through training in methods and techniques and undergoing personal therapy, I have learnt to be reflective and accepting of my own pain. My scientific-practitioner approach has been nurtured in placements where I have been encouraged to use the methods and approaches I was learning, and as a result my clinical work as a trainee has taught me humility and the importance of relationships in therapy, and also in life. Importantly, this includes my relationship with myself.

My own inner relationship with myself has developed through the counselling psychology training, but also through my belonging to a Kadampa Buddhist community, of which I have been a member for 20 years. Through developing my own spiritual side, I have experienced Buddhist empowerments that have shown me how inner resilience and joy can be nurtured despite living through life's difficulties.

Many of the third-wave approaches to which I am drawn and which have impacted my own personal development, as well as my approach in clinical practice, have been inspired by Eastern and Buddhist origin – for example, acceptance and commitment therapy, compassion-focused therapy and mindfulness are all part of the bedrock of my work. Belonging to a Buddhist community alongside my counselling psychology training has given me insight into where some of the constructs of these approaches have come from, and I have had the privilege of experiencing them in the purity of the original setting from which they were born. Therefore, the philosophy of Buddhism has had a huge impact on my own re-integration.

I particularly remember an empowerment of Green Tārā I experienced. (Empowerments are rites introducing a practitioner to tantric or esoteric forms of Buddhist practice. They are embarked upon after certain commitments and vows have been undertaken as a Buddhist and are considered as the tools which ripen or mature the mindset of a practitioner for spiritual practice. The empowerment itself lasts several hours, but it is expected that Buddhist practice is a daily concern involving being present and mindful of our thoughts and actions at all times in order to reduce our own and others suffering. The ritual of empowerment involves imagining a spark of light inside the body which embodies the unconditional love which Green Tārā represents.) In this particular empowerment, we were guided by the teacher to imagine the world as a place where everyone loves everyone else, where everybody – just for five minutes – puts everybody else first. There is no fear; there is only love and consideration for everyone. All fear and anger are dissolved. The concept is

that we all have a seed of this peace and unconditional love inside us. I remember opening my eyes and feeling a sense of peace like I had never previously known.

Learning Buddhist practices in the context of the tradition in which they developed has been an honour and has taught me not only that working with the body in visualisations is a powerful tool to benefit psychology, but also the importance of respecting the spirituality and deepest beliefs of the clients with whom we work, including their deepest fears. We must tread carefully, respectfully, and in a way that always empowers our clients. Trauma is never far from the surface of for many of us, but what I have learnt is that I have gone through some of the most difficult times of my life and yet continued to follow my dreams, despite the pain. I have learnt to shed tears and then make a choice for the direction in which I wanted my life to go. I hope that I can help others do the same.

Sometimes our deepest fears are hidden in the depths so that we may not even be aware of them, yet they shape our reactions and lives in a subconscious way. I hope that this portfolio may impact its readers in considering their own hidden traumas and the impact these may be having on their own lives and on the lives of people they may work with, and encourages a holistic and integrated way of dealing with ourselves and others.

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Part I: Research

Remote acceptance and commitment therapy for trauma: Exploring quality of life and psychological outcomes for young people during the COVID-19 pandemic. A mixed methods study.

Abstract

Objective

Emotional and physiological regulation, as well as psychological flexibility (PF), are important elements in improving coping with trauma symptoms. Trauma-focused acceptance and commitment therapy (TF-ACT) is emerging as having positive outcomes in reducing trauma symptoms as well as being linked to positive outcomes such as improved quality of life.

Post-traumatic stress disorder (PTSD) and Complex PTSD (CPTSD) are debilitating conditions which are linked to comorbid conditions such as anxiety and depression and experiential avoidance (EA), and furthermore, when young people suffer from PTSD or CPTSD, this can have long-term detrimental outcomes and negatively affect their life course.

Given that the remote ACT-based integrative intervention delivered in this study includes somatic experiencing (SE) and psychosensory elements, it is aimed at increasing PF and emotional and physiological regulation, which holds potential for reducing EA and fostering improved quality of life via pursuit of intrinsic values.

Methods

This study used a mixed-methods, multiple single-case design to explore the acceptability and effects of a six-week remote ACT-based integrative intervention for four 18–25-year-old participants experiencing trauma symptoms.

Results

Overall PF improvements were replicated and maintained in all four participants at follow-up. Effect size of change calculated using percentage of non-overlapping data showed ranges from small to large effect (28%–100%). All participants rated the intervention as acceptable and also experienced reliable decrease in depression levels with moderate to large effect size (42.85%–100% PND).

Significant and reliable improvements in quality of life were replicated and maintained in three of the four participants. Significant and reliable improvements were also replicated for PTSD symptoms in all four participants. Three participants saw a reliable and significant decrease in CPTSD symptoms, although one participant showed an increase in CPTSD levels baseline to follow-up. Three participants also showed significant and reliable decrease in anxiety levels effect size ranging from 42.85% to 87.71% (PND). Qualitative data added further validity to the importance of the ACT processes' contribution to perceived change and the participants' attribution for this.

Conclusion

This study was exploratory in nature and the resulting evidence points towards this intervention being of benefit to many young people with trauma symptoms, particularly in the development of self-regulation and reducing the intrusive nature of trauma.

It seems that this form of intervention can be efficacious in improving overall psychological flexibility. Although there were many improvements in several measures for all of the participants, for one particular participant there was an increase in CPTSD levels, which prompts discussion around the effectiveness of this intervention for some individuals.

Keywords: Trauma-focused Acceptance and Commitment Therapy, PTSD, CPTSD, Anxiety, Depression, Somatic Experiencing, Psychosensory, Experiential Avoidance, Pandemic. Mixed-method.

Chapter 1: Introduction

1.1 Overview

In this chapter, I firstly introduce the context surrounding this research. I then present the current literature around trauma beginning with developing definitions and etymology. I consider the nature of trauma symptoms linked with comorbidity and consider the impact of the pandemic as an additional traumatic stressor. In particular, I examine the effect of trauma on young people as they are the target cohort for this study. I acknowledge predisposing and protective factors for trauma, which the literature argues can either increase risk of developing trauma symptoms or ameliorate them respectively. I then go on to examine current treatments for trauma, identify gaps in the literature and in treatment options, and consider remote ACT-based integrative intervention as a treatment approach. I discuss the current and changing paradigm around trauma and the move to a new 'trauma lens' encompassing the full life-span. Finally I outline the development of the rationale for the research question.

1.2 Introduction

During a pandemic there is huge possibility of re-traumatisation and further disempowerment for individuals who have already experienced many adverse childhood experiences and traumatic events while growing up. Children and teenagers tend to be especially vulnerable to the effects of trauma. The developing brain is experiencing such growth in this highly neuroplastic developmental stage that trauma experienced at this time can affect development, so that not only does a traumatised young person face difficulties in processing trauma and learning to function positively through it, but they can also become sensitised in such a way that results in further trauma, and also physiological symptoms (Van Der Kolk, 2007:2009; Drossman et al., 1990). Further, if not addressed, the effects of trauma can last a lifetime (Cicchetti & Toth, 1995; Bellis et al., 2014; Felitti et al., 1989).

As well as single traumatic events such as a car accident or sudden death of a loved one, adverse childhood experiences (ACEs) (Bellis et al., 2014) are now also known to be a factor which can cause developmental trauma (Van Der Kolk, 2009), which shall be further defined below. There are nine ACEs that can affect stress levels and thus mental health (see Figure 1).

Figure 1. ACEs related to trauma (Bellis et al., 2014).

The more ACEs a child experiences, the more likely they will suffer chronic traumatic stress, directly impacting their nervous system, hormonal responses and immunological development. Projected outcomes for both mental and physical health are consequently much poorer (Brown et al., 2010). ACEs include direct physical sexual and verbal abuse of the child, but also include witnessing violence in the home, parental separation and witnessing alcohol or drug misuse. Increased exposure to ACEs can lead to a complex trauma reaction in many individuals. Furthermore, trauma exposure increases likelihood of anxiety, depression and other comorbidity, as discussed below.

1.3 Youth and onset of mental health difficulties

Youth can be a pivotal time for mental health as most major mental health disorders begin in this stage of life. Once onset is established, many major disorders continue into adulthood and have long-lasting implications for the individual (Evans et al., 2005). One in eight (12.8%) 5–19-year-olds had at least one mental disorder when assessed in 2017 (NHS, 2017). Anxiety and depression were shown to have doubled in young people between 1986

and 2006 (Collishaw et al., 2010), and between 2001 and 2011 inpatient intake for self-harm for under-17-year-olds increased by 68% (Young Minds, 2011).

Many individuals are trauma survivors yet are undiagnosed and unrecognised within the general population. The Office for National Statistics (ONS, 2020) released data revealing that one in five adults had experienced or witnessed child abuse (whether emotional, physical or sexual) before the age of 16. This equates to about 8.5 million people. Many of these could be trauma sufferers. Within more specific groups, such as police officers, the combined prevalence of trauma has been measured recently at 20.6% (Brewin et al., 2022; 2020), and nearly 24% of firefighters in the UK meet the diagnostic criteria for probable post-traumatic stress disorder (PTSD) (Langtry et al., 2021). Karatzias et al. (2020) found that 17.7% of a nationally representative sample of the general adult population of the Republic of Ireland also met diagnostic requirements for PTSD. This study was repeated in the UK (Shevlin et al., 2020a) and unveiled similar findings of 16.8% prevalence of PTSD in a general population sample. The implications of the possibility of undiagnosed trauma in so many are manifold and include the need for consideration of developing more appropriate and effective therapies which can be made accessible to these individuals.

One such promising therapy is acceptance and commitment therapy (ACT), which has been shown to be effective in reducing levels of trauma and increasing levels of psychological flexibility (PF, explained in depth below) in adults (Hayes et al., 2006; Kashdan & Rottenberg, 2010) and also in adolescents in the community (Livheim et al., 2020), but to date there have been no studies incorporating the use of remote ACT for young people in the UK. This study aims to address this gap, which is particularly relevant when emotional support and interventions are arguably needed more than ever due to COVID-19-related stress.

There are difficulties around the definition of trauma and their inclusivity and changing nature. Throughout this study I will be referencing current diagnostic criteria around trauma, namely the *Diagnostic and Statistical Manual of Mental Disorders*, fifth edition (DSM-V) (American Psychiatric Association, 2013) and the World Health Organization's *International Classification of Diseases*, eleventh revision (ICD-11) (WHO, 2019), but due to the restrictions these definitions can also cause I shall be using terms such as 'trauma symptoms' and 'trauma survivors', and these terms shall not only reference 'criterion A' stressors, as found in the DSM-V, but shall include longer term chronic stressors as referred to in ICD-11 such as developmental trauma, child abuse, neglect, racial trauma, and discrimination, as well as systemic factors such as the COVID-19 pandemic.

1.4 PTSD and complex trauma

1.4.1 Trauma definition development

According to the DSM-V, the first step in qualifying for diagnosis of PTSD is that at least one of the following criterion-A stressors must be present as classed by the following description:

1. direct exposure
2. witnessing the trauma
3. learning that a relative or close friend was exposed to a trauma
4. indirect exposure to aversive details of the trauma, usually in the course of professional duties (e.g., first responders, medics).

Many argue (Scheeringa et al., 1995; Teicher et al., 2003; Meyers & Putnam, 2003; Karatzias et al., 2019) the construct of PTSD does not adequately capture all elements of post-traumatic psychopathology, particularly in children, and that although it is appropriate for diagnosing single-event trauma PTSD is not sufficient to diagnose repeated trauma experienced due to neglect, or sexual abuse or childhood traumas. Herman (1992) coined the phrase complex PTSD in her book *Complex PTSD: A syndrome in survivors of*

prolonged and repeated trauma. Complex PTSD (CPTSD) has continued to be developed as a concept.

Van der Kolk (2005) proposed an additional definition for DSM-V of 'developmental trauma'. He argued that many psychiatric problems in adolescence and adulthood such as substance abuse; borderline and antisocial personality disorders; as well as sexual, somatoform, eating, dissociative, cardiovascular, metabolic, immunological and affective disorders can be traced back to childhood physical and sexual assaults and neglect (Van der Kolk, 2009, p. 226). Van der Kolk posits that developmental trauma prepares the psychological landscape for unfocused responses to subsequent stress (Cicchetti & Toth, 1995), which in turn leads to significant increases in the accessing and use of medical, correctional, social and mental health services (Drossman et al., 1990). The DSM-V publishers rejected Van der Kolk's proposal, although the WHO (2019) eventually responded to the call for reconsideration of trauma definitions for the ICD-11 and thus elaborated their definition as follows.

> Post-traumatic stress disorder (PTSD) may develop following exposure to an extremely threatening or horrific event or series of events. It is characterised by all of the following: 1) re-experiencing the traumatic event or events in the present in the form of vivid intrusive memories, flashbacks, or nightmares. Re-experiencing may occur via one or multiple sensory modalities and is typically accompanied by strong or overwhelming emotions, particularly fear or horror, and strong physical sensations; 2) avoidance of thoughts and memories of the event or events, or avoidance of activities, situations, or people reminiscent of the event(s); and 3) persistent perceptions of heightened current threat, for example as indicated by hypervigilance or an enhanced startle reaction to stimuli such as unexpected noises. The symptoms persist for at least several weeks and cause significant impairment in personal, family, social, educational, occupational or other important areas of functioning. (WHO, 2019)

The newly listed ICD-11 construct lists the more complex symptoms of CPTSD as distinct from PTSD and as resulting from exposure to chronic trauma (see Table 1).

Table 1
Symptom and diagnostic profile for ICD-11 PTSD and CPTSD

PTSD	CPTSD
Traumatic exposure (required)	All PTSD diagnostic requirements necessary and disturbances in self-organization (DSO)
Re-experiencing in the here and now (1 of 2 required)	**Affective dysregulation (1 of 2 required)**
1. Upsetting dreams	7. Emotional reactivity
2. Flashbacks	8. Emotional numbing
Avoidance of traumatic reminders (1 of 2 required)	**Negative self-concept (1 of 2 required)**
3. Internal reminders	9. Failure
4. External reminders	10. Worthless
Sense of threat (1 of 2 required)	**Disturbances in relationships (1 of 2 required)**
5. Vigilance	11. Cut-off from people
6. Hyperarousal	12. Hard to stay close to others
Functional impairment associated with these symptoms (required)	Functional impairment associated with these symptoms (required)

Abbreviations: CPTSD, complex posttraumatic stress disorder; PTSD, posttraumatic stress disorder.

The following is the diagnostic criteria for CPTSD as taken from ICD-11 (2018):

> Complex post-traumatic stress disorder (Complex PTSD) is a disorder that may develop following exposure to an event or series of events of an extremely threatening or horrific nature, most commonly prolonged or repetitive events from which escape is difficult or impossible (e.g. torture, slavery, genocide campaigns, prolonged domestic violence, repeated childhood sexual or physical abuse). All diagnostic requirements for PTSD are met. In addition, Complex PTSD is characterised by severe and persistent

> 1) problems in affect regulation; 2) beliefs about oneself as diminished, defeated or worthless, accompanied by feelings of shame, guilt or failure related to the traumatic event; and 3) difficulties in sustaining relationships and in feeling close to others. These symptoms cause significant impairment in personal, family, social, educational, occupational or other important areas of functioning. (WHO, 2019)

These additional strands go some way to identifying a proportion of children who have experienced multiple ACEs, but it may not yet be an exhaustive diagnosis (Kira, 2022) (Kira's new taxonomy of trauma is introduced later in the text.)

The DSM V still does not recognise CPTSD as a disorder, but its definition of PTSD has expanded beyond a narrow fear-based anxiety disorder to include dysphoric/anhedonic and externalizing PTSD phenotypes. However, the acknowledgement of a need for a broader definition for the variation in phenotypes does point to the fact that best treatment for one will not necessarily fit another, emphasising the need for individually assessed and organically formulated treatment (Friedman, 2013).

1.5 Trauma comorbidity

Trauma is known to have a very high levels of comorbidity, particularly with anxiety disorders, substance use disorder and major depressive disorder (MDD) (Flory & Yehuda, 2015). It is well documented that there is a strong comorbidity of PTSD and depression (Keane & Wolfe, 1990; Kessler et al., 1995; Flory & Yehuda, 2015). Two possible explanations for this are that: a) it could be a simple unrelated overlapping of symptoms or b) it could be that a phenotype of PTSD sufferer exists, potentially a sub-type of PTSD, which points to the possibility that trauma increases risk towards other mental health issues. Between 62% and 80% of individuals diagnosed with PTSD also meet criteria for at least one or other disorder (Davidson & Fairbank, 1993) and many individuals in the general population go undiagnosed.

Risk factors and comorbidities are significantly higher in those suffering from CPTSD than PTSD (Cloitre et al., 2013) and CPTSD is a more common, comorbid, debilitating condition compared to PTSD (Karatzias et al., 2019), but currently little is known about effective interventions for CPTSD. CPTSD is more strongly associated with symptoms of major depressive disorder, general anxiety disorder, chronic illness and alcohol use disorder than PTSD alone (Karatzias et al., 2019), and borderline personality disorder and suicidality is also more prevalent in CPTSD than PTSD populations (Hyland et al., 2018).

Current theory models around CPTSD propose that interpersonal trauma exposure, particularly in childhood, is an independent risk factor for CPTSD (Cloitre et al., 2013; Hyland et al., 2018; Karatzias et al., 2017). Its negative effects on health and wellbeing are considered to be primarily because it compromises children's ability to master certain developmental tasks such as affect regulation and secure attachments successfully (Cicchetti & Toth, 1995). Interpersonal trauma also compromises the development of neurobiological processes and systems that are crucial for regulating stress responses, arousal, emotion and reward processing (McLaughlin et al., 2011). The high level of comorbidity means that the study of CPTSD in itself is highly complex and problematic to research effectively, and the only recently developed definition of the construct means that this is a relatively young and unexplored field; little is currently understood or known about suitable treatments for CPTSD**,** and discussion is still ongoing as to what should count as a 'stressor' towards it. For example, should systemic incidents such as COVID-19 be included in the diagnostics? This is considered below.

1.6 Pandemic as trauma stressor

After the first few months of lockdown during the COVID-19 pandemic, evidence began emerging that a mental health crisis was developing in Europe.

Although the COVID-19 pandemic does not fit diagnostic criteria within the prevailing models of PTSD, there is emerging evidence that, as a “traumatic stressor”, it has contributed towards PTSD-like symptoms for many individuals in recent years. The Office for National Statistics (ONS, 2021) showed increased depression rates in British adults from 10% in March 2020 (pre-COVID-19) to 21% in March 2021 (mid-pandemic). Young people in particular have shown to be detrimentally affected; for younger adults aged 16–39 years, although rates in summer 2021 were lower (23%) than early 2021 (29%), they were still more than twice those of pre-pandemic levels (11%) (ONS, 2021). Pierce et al. (2020) conducted an analysis of a 53,351 participants over the age of 16 took part in a nine-wave national, longitudinal household study. Findings were that by late April 2020 overall mental health in the UK had deteriorated compared with pre-COVID-19 trends.

Bridgland et al. (2021) conducted an online study (N = 1,040) in five Western countries. Participants were asked to indicate the COVID-19 events they had been directly exposed to, events they anticipated might happen in the future, and other types of indirect exposure such as through media coverage. They were then asked to complete a Post-traumatic Stress Disorder Checklist (Blevins et al., 2015), adapted specifically to measure traumatic reactions as relating to COVID-19. The results support emerging research that COVID-19 can be understood as a traumatic stressor event capable of eliciting PTSD-like responses and exacerbating other related mental health problems such as anxiety, depression and psychosocial dysfunction. Furthermore, Horesh and Brown (2020, p. 332) describe COVID-19 as a “mass traumatic event” and recommend that we address these serious issues which are emerging and threatening to influence trauma experience for many, both now and far into the future. They call for a rapid testing and development of interventions for COVID-19-related stress.

Following the announcement from the WHO on 11 March 2020 that COVID-19 had officially reached pandemic status, a research consortium led by Thanos Karatzias began parallel

studies across the world to investigate whether PTSD was a meaningful construct in the context of the COVID-19 pandemic. They concluded that it was, and then published findings from the initial wave of their study from the Republic of Ireland in the *Journal of Traumatic Stress* (Karatzias et al., 2020), reporting that 17.7% of a nationally representative sample of the general adult population (N = 1,041) had indeed met the diagnostic requirements for PTSD. Van Overmeire (2020) raised concerns about the validity of these findings, however, arguing that simply living through the COVID-19 pandemic is not sufficient to meet the trauma-exposure criterion for a PTSD diagnosis and that, therefore, the 17.7% estimated PTSD prevalence figure was inflated. Shevlin et al. (2020b) then responded to this criticism by pointing out that direct exposure to the virus, either as a survivor or health worker in close proximity to individuals with the disease, obviously meets the DSM-V criterion-A definition, but they also believed that "living through the most deadly infectious respiratory disease pandemic since the 1918–1920 Spanish Flu could potentially be 'extremely threatening or horrific' and, hence, meets the guideline set in the ICD-11" (Shevlin et al., 2020b, p. 866). In conclusion, it would seem that COVID-19 should indeed be considered an environmental traumatic stressor and this should be taken into account when assessing and treating individuals who have lived through this, including the cohort of this study.

Clearly there is a necessary drive towards paradigm change in the field of trauma. Not only do current definitions (although developing and broadening) narrow and redact an individual's personal experience of trauma to a restrictive set of compilers, but the current definitions are also missing some key influencing factors of trauma which are not generally considered, such as an individual's experience of discrimination, for example. Racial trauma has long been neglected as a contributor to PTSD-like symptoms, as has physical disability and systemic factors such as the pandemic experience. Marsella et al. (1996a) argue, in fact, that ethnocultural factors may function in ways that mask perceptible trauma symptoms or produce syndromes that have both similarities to and differences from classic PTSD features. Moreover, it has also been acknowledged that a respondent's subjective

experience of a threat may be mediated by historical, ethnocultural and socio-political events (Marsella et al., 1996b). This could point to the fact that some individuals from particular ethnocultural backgrounds could be more susceptible to further trauma. Although Sanchez-Hucles (2008) recognises that Complex PTSD now encompasses the symptoms of chronic and repetitive trauma, and incorporates dissociation and somatization, this classification is a result of clinical work with European American female survivors of child sexual abuse (Herman, 1992). Therefore, Sanchez-Hucles questions the representativeness of Herman's sample. Additionally, Danieli (1994) has also noted that, despite the many significant contributions that Herman (1992) has made to broadening conceptions of trauma, she has not applied this expanded consideration to issues of race and ethnicity. Daniel argues that what is necessary, therefore, is to develop a conceptualization of PTSD that is based on the experiences of ethnic minorities as they cope with the trauma of racism rather than trying to make this trauma fit existing models. The discussion around inclusivity of trauma definitions and diagnoses is ongoing, but clearly there is a need for further development of these to improve inclusivity and prevent marginalisation of groups who have already been victimised, marginalised and traumatised because of their 'difference'.

One promising new theoretical development is a new taxonomy of stressors and traumas, as proposed by Kira (2022), which is not discussed in depth here but contributes towards the movement for a new emerging paradigm of a 'trauma-focused lens'. The taxonomy includes multiple systemic levels where trauma can infiltrate an individual's experience. The taxonomy includes:

- pre-identity stressors (complicated birth, attachment)
- identity stressors (personal physical, social, racial)
- aging stressors
- systemic stressors, split into group A (institutions and governments) and group B (recession, global warming)

- environmental stressors, split into group A (natural disasters, e.g. earthquakes and hurricanes) and group B (biological/pathogenic, e.g. pandemic).

This taxonomy is comprehensive and acknowledges that each of these levels can overlap and indeed compound effects of other levels and this must be taken into account when considering where an individual fits into the taxonomy.

Having postulated that the pandemic has likely influenced levels of trauma symptoms in the general population and acknowledged the comorbidity which exists alongside trauma, the question must be asked: how might this have affected the youth of our population, who have lived through the same traumas but in a pivotal developmental stage of their lives? Orben et al. (2020) posit that adolescents (10–24-year-olds) may have been disproportionately adversely affected by COVID-19 due to social deprivation at a developmental time which requires social interaction for healthy development. Magnetic resonance imaging (MRI) and functional magnetic resonance (fMRI) imaging have produced much evidence to show that the brain continues to develop at its most neuroplastic rate into the 20s and even 30s (Sawyer et al., 2018). How have the nation's young people been affected? And have they potentially been exposed to a huge traumatic stressor at a pivotal time in their lifespan which could lead to long-lasting effects for the rest of their lives?

1.7 Trauma in young people

Youth is a critical period, as this is the time of onset for many mental illnesses (Fuhrmann et al., 2015), and adolescence in particular is known to be a period of dramatic physical and neurological growth and development. However, there is debate about when this highly neuroplastic and influential growth period ends in adulthood. Adolescence was once thought of as the age of 13–19, with one’s early 20s marking ‘young adulthood’. However, neuroscientific and social studies now define the period of adolescence as more realistically being from the age of 10–24 (Sawyer et al., 2018). Evidence from brain development studies

has taught us more about cortical development, and as a result maturation of the brain is now marked as being more likely in one's early 20s (Giedd et al., 1999), with some arguing that this is extended until the age of 24 (Arain et al., 2013). Although neuroplasticity is known to generally be in effect throughout the life span, nevertheless this adolescent development period is comparatively intense as it includes dramatically changing biological, social, psychological and environmental factors. The outcomes of this intense period of development could be said to be highly influential on the remaining life course of the individual. Importantly, Arain et al. (2013) argue that dendritic pruning and myelination are functionally extremely important for accomplishing efficient maturation in the adolescent brain. The fact that synaptogenesis and synaptic pruning undergoes crucial development until the age of 24 shows this is a highly neuroplastic time frame and means that within this age span individuals are highly adaptable and have huge potential for growth. This also means that this is an intensely neuro-fluid time when neural pathways that are laid down can form more permanent pathways for adulthood. Unfortunately, this lays open the possibility for neurotoxic insult, trauma, chronic stress, drug abuse and sedentary lifestyles and trauma to have a potentially negative and lifelong-lasting impact on outcomes for the individual. This neuroscientific perspective informed the current research study to determine to recruit 18–24-year-olds, as these participants would still be within the time frame where neuroplasticity and brain development may be at optimum levels and thus could potentially lead to greater growth and longer-term lifetime benefits. If traumatic experience is left untreated, the results can even lead to structural development changes in the brain, as explained in the following section.

1.8 Brain structure and CPTSD

Brain structure and activity is affected by early or repeating trauma. Kitayama et al. (2006) identified the anterior cingulate cortex to have diminished development in groups where repeated abuse had occurred and also identified the corpus callosum (which controls inter-hemispheric communication of many processes, including arousal and emotion) of

individuals who had experienced maltreatment as being smaller in volume compared to healthy controls (Kitayama et al., 2006). Hippocampal dysfunction and reduced volume has also been associated with PTSD MRI studies. This is likely a result of a disrupted hypothalamic–pituitary–adrenal (HPA) axis resulting from continuous high cortisol levels. But in addition, brain-derived neurotrophic factor (BDNF), which plays an essential role in plasticity and neurogenesis, also suffers adverse effects from disrupted HPA axis, leading to reduced production and further atrophy of the hippocampus (Berton & Nestler, 2006).

Brain imaging studies have shown that certain areas of the brain show reduced or increased activity during PTSD arousal. One pattern in traumatised brains is that the left hemisphere (an area integral to fear processing) becomes activated when traumatic memories are recalled (Van der Kolk, 2015, p. 254). The limbic system, particularly the amygdala, is known to be the 'fear centre' of the brain and is known to mediate PTSD symptoms. Nicholson et al. (2016) measured amygdala connectivity before and after a 30-minute alpha de-synchronisation process. They showed that employing electroencephalogram neurofeedback to disrupt alpha waves resulted in activity shifting from the left hemisphere to the right medial pre-frontal cortex (an area known to be implicated with emotion regulation and modulation). This was also showed to be associated with reductions in hyperarousal and PTSD symptoms.

Another area seen to be affected by early trauma (Cracco et al., 2020) is the temporoparietal junction (TPJ), which is associated with Theory of Mind (ToM) and perspective taking. Trauma survivors exhibit reduced TPJ activity as well as less activity between the TPJ and the pre-frontal cortex. As well as the neurobiological outcomes of trauma mentioned here, there are other comorbid factors such as neuro-endocrinological factors which youth are vulnerable to, which are outlined below.

1.9 Neuro-endocrinological factors of CPTSD

Research has shown that early traumatic experiences can result in disrupted optimal development and lead to maladaptation of brain development, physiological stress responses and behaviour, all of which converge into increased disease risk (Heim, 2020).

Oxytocin is a neurohormone which has long been known to positively ameliorate stress in mammals (Panksepp, 1998). Absence of oxytocin during development detrimentally affects brain development (Tarrier, 2006, p. 100) and low levels during times of stress can also exacerbate negative effects of trauma. Heim et al. (2008) examined the cerebrospinal fluid (CSF) of 22 women categorised into those with none–mild versus those with moderate–severe exposure to varying experiences of childhood neglect or maltreatment. Their findings were that oxytocin levels in CSF were significantly lower in those with higher incidence of childhood trauma.

Research also identified a glucocorticoid resistance, developed after early trauma, which can affect the feedback loop, leaving a trauma survivor with lower levels of tolerance for stress cues (Heim et al., 2008). As well as the neuro-endocrinological factors of trauma mentioned here, there are other comorbid factors which young people are also exposed to, which are described next.

1.10 Youth, trauma and comorbidity

Kim-Cohen et al. (2003) showed in a longitudinal study that 73.9% of adults with mental disorders were diagnosed before age 18 and 50.0% before age 15. Importantly, it is thought that psychiatric disorders may be triggered by stress or trauma in childhood or adolescence (Takizawa et al., 2014). Several studies have demonstrated that young people exposed to trauma-induced stress are more susceptible to developing mood disorders, psychotic disorders and post-traumatic stress disorder (Gil et al., 2009).

Unfortunately, the more ACEs and traumatic experiences an individual lives through, the higher the incidence of not only poor mental health outcomes but also poor socioeconomic and physiological outcomes. The longer that trauma symptoms impact on a young person's life, the more negative the impact on recovery rates. There is a higher incidence of anxiety, depression and addiction being found in populations where untreated trauma from ACEs have occurred. Trauma experiences are reported to have a dose-dependent relationship with the probability of homelessness (Bassuk et al., 2001) and half of all individuals who have experienced homelessness have also experienced four or more ACEs (Bellis et al., 2014). Trauma can be present behind many adverse presentations, yet little specialised help is available and often there is a long waiting list for such treatment. Studies commonly find elevated rates of childhood trauma in incarcerated cohorts and offender groups, e.g. the Reavis et al. (2013) study. In fact, ACEs have been shown to affect social and health outcomes adversely and even to reduce life expectancy by as much as 20 years where a high number of ACEs were experienced (Leitch, 2017).

Clearly, prevention is preferable than waiting for these poor outcomes to play out. Timely intervention at a key developmental point in young people's lives as soon as possible after the trauma has occurred could improve these outcomes. Statistics show an increase in poor mental health outcomes for young people in recent years as suicide is currently the fourth leading cause of death in 15–29-year-olds (WHO, 2022), and there exists a concern for the lack of access to therapy for these individuals when they need it most. Unfortunately, individuals who have experienced a high number of ACEs often remain undiagnosed within the general population. Much of the trauma-related research undertaken has been aimed at those who meet clinical criteria for a PTSD diagnosis. However there appears to exist a hidden population of trauma sufferers. According to Gerger et al. (2014), a large proportion of the general population – between 40% and 90% – are trauma survivors (Breslau et al., 1991, 1998; Kessler et al., 1995; Bernat et al., 1998), and many of these go on to suffer

chronic trauma symptoms despite not meeting clinical PTSD criteria. These figures were pre-pandemic and so figures are likely to be even higher post COVID-19.

1.11 Protective factors

Just as there are factors which can predispose individuals towards an increased risk of developing PTSD or CPTSD (such as the number of ACEs experienced by an individual), similarly there are also protective factors which can ameliorate the effect of trauma. Indeed this ability to cope after stressors could be termed ‘resilience’, the ability to bounce back and recover after adversity. Ungar (2008) defines resilience as follows:

> In the context of exposure to significant adversity, whether psychological, environmental, or both, resilience is both the capacity of individuals to navigate their way to health-sustaining resources, including opportunities to experience feelings of well-being, and a condition of the individual’s family, community and culture to provide these health resources and experiences in culturally meaningful ways (Ungar, 2008, p. 225).

There are many factors which contribute to resilience, and some are significantly related to positive family and peer relationships (Hadfield & Ungar, 2018) while others are related to social support which is available to the individual post-traumatic stressor (Kroska et al., 2018; Usami et al., 2019). Other protective factors linked to recovery from trauma are associated with individual personal skills and abilities such as meaning making, dispositional optimism, PF and an active coping style (Ungar, 2021). In particular, PF has been identified as an internal process which mediates outcomes after trauma (Skowron et al., 2014) and shows promise as a mediating factor which can be developed in therapy. This influenced my choice of PF as a primary process to be studied in this research.

1.12 Psychological flexibility

PF is a set of dynamic processes describing an individual's patterns of interacting with their environment. It is defined as the ability to 'recognize and adapt to various situational demands; shift mindsets or behavioral repertoires when these strategies compromise personal or social functioning … and be aware, open, and committed to behaviors that are congruent with deeply held values' (Kashdan & Rottenberg, 2010, p. 467). PF is increasingly seen as a positively mediating factor for symptoms of trauma and other mental health conditions. The literature supporting PF and its relationship to trauma and comorbid presentations in adults is increasing, yet there is very little research looking at these aspects, less with young people and even less with regard to remote therapy.

An absence of PF manifests in experiential avoidance (EA) and a rigidity of internal relating to self and others, which can maintain dysfunctional behaviours. There is growing evidence linking EA with a variety of behavioural problems, psychopathology (Kashdan & Rottenberg, 2010) and maintenance of trauma symptoms (Bonanno & Burton, 2013). Importantly, PF has been shown to have mediating effects for trauma (Bonanno & Burton, 2013).

The theory and therapy associated with the construct of PF most strongly is acceptance and commitment therapy (ACT) (Hayes et al., 1999). (ACT is introduced more fully below.) As this research was aiming to provide an intervention to young people who were experiencing trauma symptoms, and PF is strongly identified as a potential protective factor, ACT was the approach chosen as the remote intervention and is discussed more fully later in the thesis. PF has been studied as a mediation factor for early life trauma (ELT) (Richardson & Jost, 2019). In the Richardson and Jost study, a partial mediation model was supported for PF being a mediator for depression and PTSD symptoms, and the authors suggest that PF may facilitate coping with ELT and improve resilience to negative psychological outcomes of trauma. These studies point to PF being a promising target for therapeutic intervention in relation to trauma, but as yet there is limited evidence for the efficacy of ACT with trauma.

There is however evidence that PF plays a role as a mitigating factor. Dawson and Golijani-Moghaddam (2020) conducted an online survey (n=555) with adults in the UK and found that PF was significantly and positively associated with greater wellbeing, and inversely related to anxiety, depression and COVID-19-related distress. They strongly recommend that cognitive-behavioural approaches be further investigated as potentially holding promise to manage the current and long-term impact of the COVID-19 pandemic.

1.13 ACT

1.13.1 ACT theory

ACT is an increasingly popular third-wave CBT, based on relational frame theory, with both being grounded in functional contextualism, which is a type of psychological pragmatism, placing weight on the importance on considering hypotheses by their practical consequences (Hookway, 2015). This contextual behavioural science (CBS) approach can be described as a specific strategy for scientific development, which avoids the seeking of ultimate ontological truths but perceives research and all behaviours as part of a larger context and aims to generate useful as opposed to 'true' ideas. This encompasses development of theories as well as measurement of key theoretical processes and efficacy testing over a wide range of levels of analysis (Hayes et al., 2013).

A transdiagnostic approach found to mediate in particular the construct of PF, ACT works through thought processes and metacognitive concepts, placing emphasis on defusion of unhelpful thoughts, re-framing through context, acceptance through mindfulness and conscious taking of action towards an individual's deep, intrinsic values (Hayes et al., 2016). The six core processes underpinning its philosophy are together named the *hexaflex* (see Figure 2). PF is seen not just as a construct but as a unified model approach to suffering in individuals (Hayes et al., 2016). Therefore, it has its own dedicated theory and ontology.

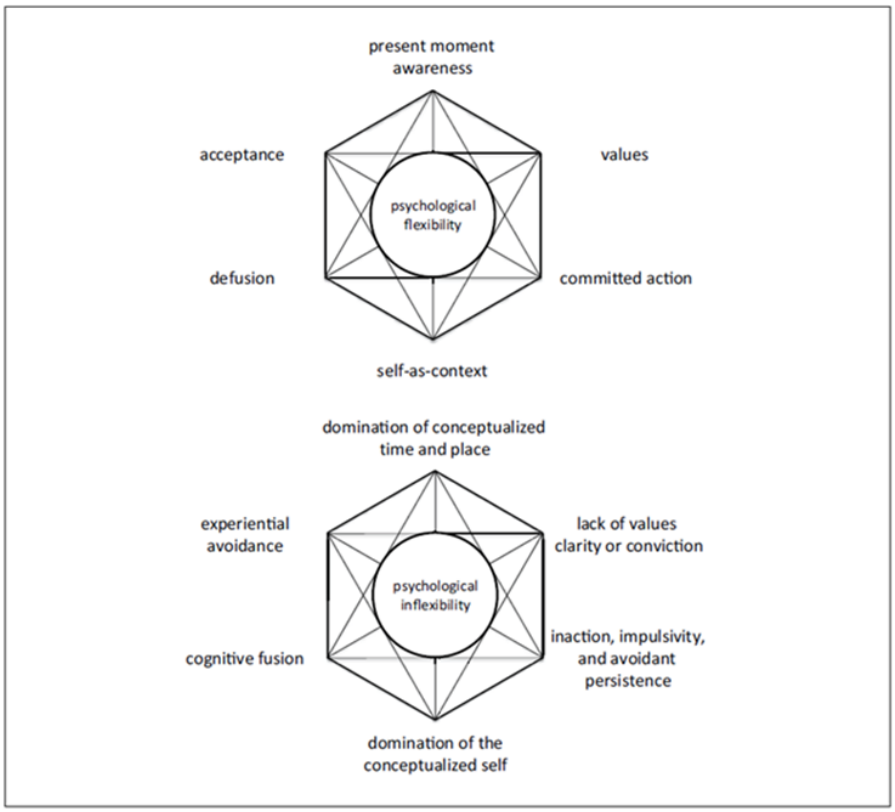

Figure 2. The PF hexaflex (top) and inflexahex (bottom) repertoires (Wiggs & Drake, 2016).

1.13.2 ACT processes and process-based therapy (PBT)

The six core processes of the hexaflex are as follows:

1. contact with the present moment
2. values
3. committed action
4. self as context
5. defusion
6. acceptance.

ACT philosophy suggests that mental suffering is directly related to psychological inflexibility, the premise being that, while we cannot change the difficult things that happen to us, we *can* change our internal response to them, which in turn benefits our emotional and physical well-being. This approach differs from the paradigm of medicalisation and 'fixing' people who are

‘sick’, and rather allows people to understand themselves better so they can choose different internal and external behaviours and mindfulness (discussed in more detail below).

As ACT has developed over recent years, it has evolved. Hayes et al. (2018) purport that evidence-based therapy, rather than being based on experimental protocols designed to impact psychiatric syndromes (seen by some as a declining paradigm) (Hayes et al., 2018), would benefit from an emerging paradigm of process-based therapy whereby “focus is on how to best target and change core biopsychosocial processes in specific situations for given goals with given clients” (p. 3). This has led to a process-based approach termed PBT (Hayes, 2018), with ACT seen as an early prototype of this (Ong et al., 2020). Within this approach, there is arguable more fluidity than historical evidence-based approaches as it allows for “intensive, frequent assessment linked to modern time series analyses [to] be imbedded in randomized controlled intervention trials, allowing a program of research to emerge that is sensitive to the individual at the same time as nomothetic questions are examined, without violating logical and statistical assumptions” (p. 40). This PBT approach is in its infancy, but I feel the current study embodies the flavour of this approach, rather than a strict ACT approach. Therefore, throughout this study, the intervention used will be referred to as an “ACT-based integrative approach” or a “PBT approach”. This reflects the fact that it has a strong idiographic aspect with the intervention tailored for a cohort experiencing trauma symptoms (so including a heavily based trauma focussed aspect) as well as being tailored to each individual including their personal aims and issues.

1.13.3 ACT research

At the time of writing, there have been at least 250 randomised controlled trials (RCTs) of ACT. This has enabled both meta-analyses and systematic reviews, 40 of which have been conducted to date.

An early systematic review and meta-analysis on the efficacy of third-wave behaviour therapies was conducted by Öst (2007). Included in this review were 13 RCTs (n=677), where ACT – either singly or in addition to another treatment – showed comparison to a control group, or another active treatment. Öst claimed that the ACT RCTs were not as robustly conducted as the CBT studies and that the quality of ACT research was substandard. However, in response to this review, criticisms were put forward first by the authors of the studies (Atkins et al., 2017). When Öst's data was analysed, 91 errors were identified as being dominantly negatively biased towards ACT studies, ignoring the more positive outcomes.

More recent meta-analyses of ACT show substantially more favourable outcomes than Öst (2007). Smout et al. (2012) reviewed ACT research conducted since 2008 and found that quality of methodology of studies had improved and that ACT was an effective treatment for chronic pain and social anxiety disorders such as panic disorder, generalised anxiety disorder, social phobia and obsessive-compulsive disorder (OCD). A-Tjak et al. (2015) also analysed 39 RCTs on the efficacy of ACT (n=1,821). Patients suffering from both mental health disorders and somatic health problems were included. Comprehensive meta-analysis software was used and ACT was found to achieve better outcomes than both treatment-as-usual (TAU) and wait-groups. Further, Hacker et al. (2016) and A-Tjak et al. (2018) found that, when comparing CBT with ACT in the treatment of major depressive disorder, ACT was at least as effective as CBT.

1.13.4 Neuroscience evidence and ACT

Neuroscience provides additional understanding of the efficacy of ACT compared to CBT in the treatment of social anxiety disorder. Burklund et al. (2017) found that there are different mediating factors in action within ACT protocol. Using fMRI analysis, a definite pattern of neural activity was found to be associated with greater treatment response to ACT. In contrast to CBT, a core component of ACT is the cultivation of acceptance and mindfulness

in the pursuit of a value-driven life. This involves a metacognitive awareness of one's thoughts, feelings and behaviours, without an attempt to change them. The posterior insula region – observed in predicting responses to ACT – is a 'multimodal sensory region' (Kurth et al., 2010; Zu Eulenburg et al., 2013). It is thus postulated that 'greater pre-treatment reactivity in this region could possibly have facilitated the effectiveness of ACT through an enhanced dispositional sensory awareness' (Burklund et al., 2017, p. 62). This research points to the fact that ACT works in a different neurobiological way to CBT and strengthens the argument for a need for further research into ACT: a more naturalistic treatment, sitting within a more humanistic paradigm that may mediate meta-cognitions and be helpful with self-regulation and increased well-being.

Most research around ACT has been restricted to feasibility and acceptability pilots. Johns et al. (2016) held the first feasibility trial with a community setting to explore the feasibility and acceptability of a brief group ACT intervention for adults experiencing psychosis. The primary measures were self-rated outcome of functioning and a secondary outcome of mood. The total mean satisfaction rating was 27.4 (SD ¼ 3.6; range:16e32, n ¼ 58), indicating high satisfaction, and both showed significant improvement over time from baseline to follow-up functioning: coeff. = -2.4, z = -2.9, p = 0.004 (95% CI: -4.0 to -0.8); mood: coeff. = -2.3, z = -3.5, p = 0.001 (95% CI: -3.5 to -1.0). ACT was therefore found to be highly acceptable as well as feasible with medium improvement effects of both measures. Clients also reported increased PF post-intervention. However, an established PF measure was not used in this study and the uncontrolled design makes it difficult to attribute improvement to the intervention and to rule out other reasons for changes measured.

Kyllönen et al. (2018) delivered a brief (six-session) ACT intervention and found significant improvements in depression even at a three-year follow-up. Following the six-week intervention, diagnostic remission rates in the ACT and control groups were 60% and 22% respectively. Also, 70% of the ACT participants were classified as either recovered or

improved. Analyses of recovery rates showed that 70% of participants in the ACT group were classified as either recovered (52.6%, n = 30/57) or improved (17.5%, n = 10/57) at post-treatment assessment, and 30% (n = 17/57) were classified as unchanged. In the wait list control (WLC) group, the number of participants classified as either improved or recovered was 32% (recovered: 21.3%, n = 10/47; improved: 10.6%, n = 5/47), 66% (n = 31/47) remained unchanged and 2% (n = 1/47) were classified as deteriorated. The number of participants classified as recovered/improved was higher, and participants classified unchanged were lower in the ACT group ($\chi 2 = 15.94$, df = 3, $p < 0.001$). The post-measurement between-group effect size for depression symptoms was large and in favour of the ACT group (Beck Depression Inventory-II, d=1.25). At three-year follow-up, the within-group effect sizes were also positive (d=1.11–1.77). This is one of few longitudinal studies that add evidence for long-term maintained benefits from an ACT intervention, and adds weight to the hypothesis that ACT may offer similar long-term benefits to young people experiencing comorbid trauma symptoms.

1.13.5 Research with ACT for young people

Despite a growing body of research with ACT showing effectiveness for adult populations demonstrating psychosis and severe affective disorders, there are still very few studies that have examined the effectiveness of ACT on young people (reviews and meta-analysis include Halliburton & Cooper, 2015; Swain et al., 2015; Lønfeldt et al., 2017.) Most studies on ACT for youth are brief interventions or case studies, have small sample sizes and are conducted in the community rather than in a clinical setting. However, results thus far indicate that ACT is helpful for individuals' stress, chronic pain, behaviour disorders, OCD, PTSD and learning disorders (Halliburton & Cooper, 2015).

More recent research focused specifically on adolescents in residential care has been Livheim et al. (2020). This was a quasi-experimental study which had excellent ecological validity, being tested at five different sites throughout Sweden (n=160). Post intervention, the

TAU+ACT group had decreased symptoms on the primary outcome variables of depression (Cohen's *d* = 0.34, p = 0.041) and anxiety (Cohen's *d* = 0.38, p = 0.003). Decreased anxiety was mediated largely by the primary process variable PF. Limits were that it did not include any objective behavioural measures, and there was no random group assigned. However, it was transdiagnostic, so results can be reliably generalised to a typical inpatient setting with comorbid presentations where trauma is often at the heart of many complex presentations.

Recent theoretical developments, using acceptance and mindfulness-based strategies, focus more on a biopsychosocial, contextual approach. ACT offers a transdiagnostic approach of relating to dysfunctional internal experiences, placing an emphasis on valued action to engage in a meaningful life (Hayes et al., 1999). The number of successful applications of the ACT model to a variety of clinical problems is increasing (Hayes et al., 2006), and some research points to the efficacy of an ACT approach for people with psychosis – for example, people who struggle with internal voices use more distraction and thought-suppression techniques (Romme & Escher, 1993). ACT research may offer an alternative yet relatively unexplored avenue of psychological therapies.

1.14 Mindfulness

Mindfulness, as a core aspect of the intervention employed in this study (ACT) which sits within the core ACT process of *contact with the present moment*, deserves further definition. Mindfulness is a term for the development of Eastern meditation practices that originated from the Buddhist tradition. Jon Kabat-Zinn – who was a pivotal figure in bringing mindfulness to the West – gives this definition: 'Mindfulness is awareness that arises through paying attention, on purpose, in the present moment, non-judgmentally' (Kabat-Zinn, 1994, p. 4).

Kabat-Zinn developed mindfulness-based stress reduction (MBSR) through his ten-week study (Kabat-Zinn, 1982) on outpatients who had found no benefit from traditional medicine.

He found that patients who followed his MBSR programme reported significant reductions in pain levels and medical symptoms, and large, significant reductions of low mood and psychological pathological symptoms. Mindfulness is growing in popularity and is being used more as intervention for both clinical and non-clinical groups.

Mindfulness meditation is thought to help achieve self-acceptance, otherwise known in Buddhism as *maitrī*. Chodron (2001) explains that there are four dimensions of *maitrī* that are developed when people meditate: commitment, awareness, willingness to experience emotional distress, and attention to the present moment. Practising mindfulness during both easy and difficult circumstances enables people to see themselves as part of a greater context, not as good or bad but as part of an ever-changing universe. This approach is central to acceptance-based therapy.

1.14.1 Mindfulness for trauma

Follette and Vijay (2009) trialled a transdiagnostic approach delivered by non-experts in order to test the acceptability, feasibility and efficacy of narrative exposure therapy and a meditation–relaxation approach in children with PTSD. Clients with persistent trauma symptoms exhibit a variety of behaviours that reflect a narrowing of their behavioural repertoires in response to aversive internal experiences. This narrowing is represented by a type of psychological inflexibility, which has been described as being a result of an inability to be mindful or present (Follette et al., 2004). Part of this narrowing process is that avoidant behaviours are increasingly employed. Some examples of these that are commonly observed include attempts to suppress intrusive thoughts, avoidance of situations that elicit negative internal experiences, substance misuse and emotional numbing. This experiential avoidance of painful internal psychological experiences represents the very opposite of mindful behaviour which can develop into a persistent strategy that is maintained by conditioning processes. Traumatic stress is an example of one such powerful conditioning process, and so mindfulness, it could be argued, can be a much-needed and beneficial skill

when dealing with PTSD, a condition which pulls individuals constantly away from the present moment back into moments of terror or threat through flashbacks, nightmares and intrusive thoughts.

In a systematic review and meta-analysis of 24 studies with student participants (n=1348), Zenner et al. (2014) found that mindfulness-based interventions with adolescents had a large effect on cognitive performance, a small to medium effect size on improvements in resilience and a reduction in negative affect. Furthermore, in 2013, Khoury et al. conducted a comprehensive meta-analysis examining 209 different mindfulness studies (n=12,145), concluding that mindfulness-based therapy (MBT) had more efficacy in treating psychological disorders than physical or medical conditions, and in particular showed clinically significant effects in the treatment of anxiety and depression – gains that were maintained at follow-up. One of the possible mechanisms by which mindfulness is said to be effective has been posited by the neuroscience field and is described below.

Neuroscience has identified a state of default functioning of the brain and termed it the DMN (default mode network), defining it as a network of brain regions which interact in a distinguishable way from other networks in the brain (Sridharan et al., 2008). The DMN is at its most active when an individual is awake but non-focused. It is the state our brains revert to by default when not engaged in a task and is particularly active during daydreaming and mind-wandering (Brewer et al., 2011). Indeed, research has correlated high levels of mind-wandering to unhappiness (Killingsworth & Gilbert, 2010). However, mindfulness is thought to have benefits on a meta-cognitive level, reducing levels of rumination. Focusing on breath or other mindful practices reduces activity in the amygdala and allows less emotion-orientated thought reactions (Hölzel et al., 2011b; Berkovich-Ohana et al., 2012). Mindfulness is thought to decrease activity in the amygdala, by interrupting the DMN pattern of thinking, increasing activity in the pre-frontal cortex and thereby decreasing emotive fear responses and increasing reflection and considered responses (Sood & Jones, 2013; Jerath

et al., 2012). The ability to reflect and give considered responses can often be reduced for a trauma survivor when their trauma is triggered and they are activated back into a state of survival. Hence the ability to increase levels of mindfulness

1.14.2 Physiological effects of mindfulness

Mindfulness research has shown positive effects for not only psychological but also physiological aspects. Carmody and Baer (2008) found that it promoted significant decreases in medical symptoms and stress and improvements in well-being and psychological functioning, while Davidson (2010) discovered further evidence supporting the theory of mindfulness prompting physiological changes when he found alterations in brain function during meditation. Further, when Hölzel et al. (2011a) used MRI to record structural changes in the brains of 17 individuals, they discovered that, post-MBSR, levels of grey-matter density in some parts of the subjects' brains were significantly increased, in particular the pre-frontal cortex, which is central to executive functioning and decision making. There were also increases in density in the TPJ, an area central to perspective taking and empathy, as well as a decrease in grey matter in the amygdala, a primitive part of the brain associated with fear response. Hölzel et al. (2011a) also found a correlation between reports of reduced stress and shrinking of the amygdala.

All of these findings suggest that mindfulness causes change not only to thought habits but also to physiology and even brain structure itself. These changes can be understood in terms of neuroplasticity, the process whereby areas of the brain undergo structural change, for example when a stroke victim is recovering (Sztriha et al., 2012), or simply when new habits are created through learning any new skill. In these processes, the brain creates new neural pathways and builds upon them; synapses that fire simultaneously and regularly create a more permanent and strengthened neural pathway (Hebb, 1949) to accommodate new responses and knowledge in a process known as Hebb's rule. Neuroplasticity is thought

to be one of the main processes by which mindfulness can change cognition habits, physiology and behaviour (Hölzel et al., 2011a).

1.14.3 Mindfulness and PF

One of the key constructs seen to improve through mindfulness and ACT interventions is PF, defined as the ability to fully contact the present moment with consciousness and to change or persist in behaviour in accordance with valued ends (Hayes et al., 2006).

Lønfeldt et al. (2017) conducted a systematic review and meta-analysis of the mean effect sizes of the associations between third-wave cognitive constructs held by youth, specifically analysing the constructs of PF, mindfulness and meta-cognition. They found that there was a large effect size for PF, a medium effect size for mindfulness and a medium to large effect size for meta-cognitions and anxiety. This means that levels of PF strongly associates with anxiety levels, mindfulness has a moderate association anxiety levels and meta-cognition has a moderate to large association with anxiety levels in youth, which raises the question about whether PF is increasingly found to be associated as a core meta-cognitive mediating factor for anxiety and depression levels (A-Tjak et al., 2015; Livheim et al., 2020).

1.15 Current recommended treatments

1.15.1 NICE guidelines

Current NICE guidelines for treating trauma are as follows (National Institute for Health and Care Excellence, 2018): If you have clinical symptoms of PTSD and have experienced one or more traumatic events in the past month, NICE recommend you should be offered the following treatment options as prevention of, or treatment for, PTSD:

- trauma-focused cognitive behavioural therapy (CBT), such as:
    - cognitive processing therapy
    - narrative exposure therapy (NET)

    - prolonged exposure therapy
- eye movement desensitisation and reprocessing (EMDR)
- supported trauma-focused computerised cognitive behavioural therapy (CBT)
- CBT to target an issue such as anger or sleeping problems
- medication such as antidepressants or antipsychotics to manage some of the symptoms of PTSD.

If the trauma has occurred in the last four weeks or symptoms are mild then active monitoring or 'watchful waiting' is the recommendation. This is due to the fact that two-thirds of all cases are said to naturally recover without treatment (Rosellini et al., 2018).

NICE guidelines, however, do not make much acknowledgement of CPTSD, and indeed differentiation with regard to PTSD is minimal. In fact, Dorahy (2006) cautions against the over-generalisation of the NICE guidelines for treatment of PTSD, particularly where the client is from areas of chronic or ongoing civil disturbance, or if there are repeated or complex presentations of trauma. In these cases, he suggests premature ending of therapy is common and disappointment in lack of recovery can cause client–therapist ruptures (Dorahy, 2006.) The relatively recent definition of CPTSD means that there is little research around suitable treatments for the condition, and even rarer are studies examining remote delivery. Two of the most heavily validated treatments for trauma are CBT and exposure therapy. Consequently, I have focused on these two approaches firstly.

1.15.2 CBT mechanisms of change

It is thought that the mechanism by which CBT is effective is predominantly by the mediating effect that CBT has on maladaptive cognitive distortions associated with PTSD (Kar, 2011). Until recently, psychological research has primarily focused on cognitive-behavioural and exposure-based procedures for treatment of PTSD (e.g. Watts et al., 2013). There are numerous studies showing these procedures lead to a significant reduction in post-traumatic

symptoms by addressing dysfunctional cognitive processing (Watts et al., 2013). As a result, cognitive-behavioural and exposure-based treatments are deemed to be effective therapies for treatment of PTSD and consequently are recommended by NICE for trauma treatment. However, there are some trauma survivors for which these approaches are not effective at reducing trauma symptoms (Corrigan & Hull, 2015), namely Complex PTSD sufferers.

The goals of trauma-focused CBT (TF-CBT) are 1) to modify excessively negative appraisals of the trauma and its sequelae; 2) to reduce reexperiencing by elaboration of the trauma memories and discrimination of triggers; and 3) to drop dysfunctional behaviours and cognitive strategies. Therefore, one might assume that if cognitive appraisals were able to be altered in a functional way, this might also mediate changes in cognitions around the trauma. This was addressed directly by Foa et al. (1999), in a study in which changes in cognitive appraisals characteristic of patients with PTSD were seen to be positively related to treatment outcome. This aligns with the hypothesis that altering these appraisals is one of the mechanisms of change in TF-CBT.

The Ehlers and Clark (2000) model purports two other pathways of change: change in the autobiographical memory for the trauma, and the dropping of maintaining behaviours and cognitive strategies. Cognitive, language-based interventions rely on a substantial amount of cognitive processing, but individuals who suffer from traumatic experiences display impaired cognitive functioning due to the increased negative affect that they are experiencing (Mujica-Parodi et al., 2004; Van der Kolk, 2016). This increased negative affect has been posited to be exaggerated by sensory and physiological input associate with traumatic memories. Van der Kolk and Fisler (1995) conducted a systematic exploratory study of 46 subjects with PTSD which indicated that trauma memories were retrieved initially in the state of dissociated mental imprints with sensory and affective aspects of the trauma experience itself. These were experienced in visual, olfactory, affective and kinaesthetic experiences. It

may be that the trauma-related cognitive malfunction may reduce the efficacy of cognitive-behavioural treatments (Van der Kolk & Fisler, 1995).

Questions exist as to the efficacy of CBT for trauma. Exposure-based interventions and cognitive-behavioural therapy often result in high drop-out rates due to the perceived difficulty and aversive nature of the intervention (Lewis et al., 2018; Wald & Taylor, 2008). Furthermore, a significant proportion of patients still met diagnostic criteria for PTSD at the end of treatment. The proportion ranges between 35% and 47% (Bryant et al., 2003; Foa et al., 1999; Resick et al., 2002). Clearly, CBT is efficacious in far from all cases.

So although TF-CBT has been established as the best-validated therapy to date for PTSD, considering that only two-thirds of patients respond favourably to TF-CBT (Bryant, 2019) there is controversy over whether stagnation is occurring in the field of trauma therapy. Bryant argues further that most PTSD sufferers, in particular some ethnic minority groups, are not able to access evidence-based treatments, which could be due to differential access to health resources, ethnic discrimination or socio-economic factors. There is further concern that neither the DSM-V nor the ICD-11 definitions of trauma capture the full gamut of trauma sufferers; indeed, one study (O'Donnell, 2014) showed that as few as 42% of trauma survivors were diagnosed as having PTSD using both definitions. Bryant suggests that the identification of novel mechanisms that can be translated into the optimisation of treatment outcomes in the delivery of evidence-based treatments should be a top priority in the field of traumatic stress. There is a call for a shift in paradigm regarding trauma treatment, and a recognition of the importance of early intervention. As Corrigan and Hull (2015, p. 142) state: ‘Rapid treatment as early in life as possible could prevent decades of suffering for traumatised individuals and restore, or provide afresh, a quality of life hitherto unimaginable.’

1.15.3 Paradigm shift in trauma therapy

Corrigan and Hull (2018) argue that there is already a paradigm shift in process regarding trauma treatment. They purport that the shift is moving towards perceiving mental health through a 'trauma paradigm' rather than the existing biomedical model, or indeed through the cognitive behavioural approach. The new definitions of CPTSD reflect a new acknowledgement of the recognition of developmental and relational trauma. Neuroscience and psychological research have been shedding light and furthering understanding of the underpinning neurophysiological processes involved in memory-reconsolidation therapies.

As a trainee counselling psychologist, I feel a compelling responsibility to push myself towards learning new skills and techniques which neuroscience and psychology are elucidating as beneficial for trauma clients. This is particularly important considering that there is such a high incidence of hidden trauma survivors in the general population, and now, post-COVID-19, there will undoubtedly be more ACEs having been experienced, as well as vicarious and existential traumas by many individuals.

1.16 Neurobiology of trauma

The neurobiological approach to trauma works on different assumptions to the cognitive model whereby negative cognitive appraisal leads to experiential avoidance. The neurobiology model approaches from a bottom-up perspective, acknowledging that there are physiological and neurological responses that are unconsciously operating in an individual. It could be argued that simply approaching trauma via a cognitive route will not address the trauma responses at the root of the issue. Cognitions can maintain and take an individual back into rumination and hence increase likelihood of EA – for example, an individual who experienced trauma around being bitten by a dog may spend time worrying about taking a certain route which involves walking in a park where dogs roam freely. This could take them into a rumination cycle whereby they spend time considering alternative routes or may decide not to make the journey at all, leading to more avoidant behaviours. This individual

may work on their cognitions and find some adapted more functional beliefs, but when confronted with a dog in the flesh, the old primal fear is highly likely to emerge and hijack any preferred cognitions. Cognitions are an important part of a PTSD response, but the primal physiological responses of trauma must be addressed initially, so that these do not hijack any cognitive work which may be helpful. A bottom-up (body/affect-focused) approach, combined with a top-down (cognitive) perspective of trauma, can be helpful here (Levine, 1997; Solomon & Heide, 2005). A bottom-up approach assumes that the core response to trauma happens firstly in the body and in the 'older' parts of our brains, namely the reptilian brain and the limbic system. The reptilian brain, located in the brainstem, is responsible for coordinating the functioning of the heart and lungs, endocrine and immune systems, and all of the fundamentals of the body's functioning such as sleeping, eating and homeostasis in general. The limbic system (also known as the mammalian brain) is the seat of emotion and is strongly linked to fear and survival mechanisms. Together the reptilian and mammalian brains are often called the 'emotional brain', as they sit at the centre of the central nervous system and govern our instincts and gut reactions as well as our ability to 'learn from experience' or 'learn from trauma'. This neuroplasticity means that our brains can be 'rewired' to adapt to stressful situations, but also it means that sometimes the wiring can be altered due to trauma. The question is, can we rewire our nervous system to process traumatic experiences by integrating a bottom-up approach with cognitive approaches? As explored below, a bottom-up approach involves working more closely with the body and with emotional responses that manifest physiologically. One such bottom-up approach is somatic experiencing (SE) (Levine, 1997), which assumes different mechanisms other than cognitive by which trauma symptoms are laid down and maintained, namely mechanisms of a core response network (Figure 3), the mechanisms of which form the theory of SE (see below).

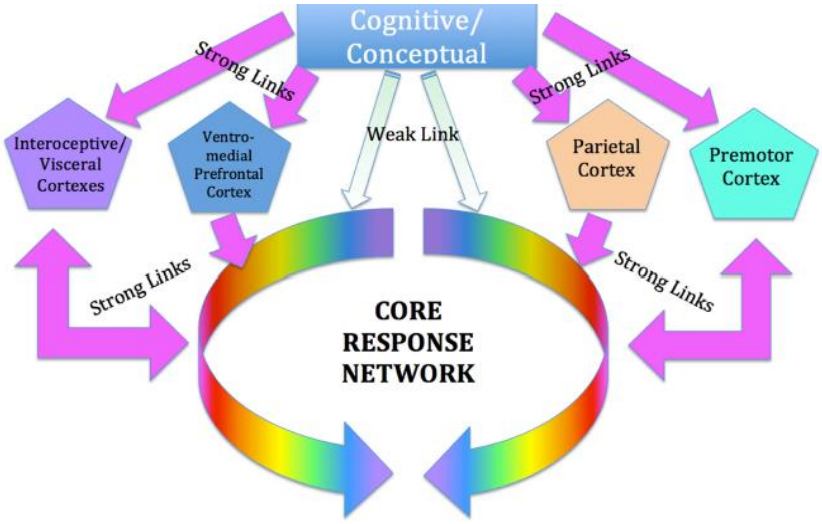

FIGURE 2 | Cortical control of the CRN. We suggest that the influence of conscious conceptual thought processes on the CRN is relatively weak and indirect, whereas the influence of those portions of the cortex mediating interoceptive, proprioceptive and kinesthetic awareness is relatively strong and direct. These areas include the insula and anterior cingulate cortex, which have been hypothesized to be involved in cortical control of the ANS; and the sensorimotor and (especially) pre-motor cortex, involved in kinesthetic and proprioceptive experience and in planning and imagining movement, as well as the parietal cortex involved in body schema, and the ventro-medial prefrontal cortex.

Figure 3. The core response network (taken from Payne et al., 2015).

1.16.1 Mechanism of change in somatic experiencing

Somatic experiencing, developed by Levine (1977; 1997; 2010), focuses on resolving symptoms of post-traumatic stress and chronic stress. A main difference between SE and the cognitive therapies is that the predominant interventional approach incorporates bottom-up processing by directing the client's awareness to internal sensations both visceral (interoception) and musculoskeletal (proprioception and kinaesthesis), as opposed to primarily cognitive experiences. It purposefully avoids intense or direct re-experiencing of the traumatic memory and rather approaches these memories in a titrated, indirect and gradual fashion. SE, therefore, is specifically not a form of exposure therapy. Payne et al. (2015) purport that the theory of SE can help to explain beneficial mental, emotional and physiological aspects which result from mindfulness meditation as well as the overwhelming flooding or dissociation which can occur when traumatic memories are unearthed. They go on to argue that SE techniques can be used alongside mindfulness approaches to enhance and increase efficacy in successfully processing traumatic memories and reducing traumatic symptoms, and posit that the SE route is probably different to the route of exposure therapy of treatment, linked rather to 'biological completion' (Levine, 1997), and hence it results in a

quicker, more direct extinction of fear than exposure therapy alone. Biological completion can be explained by considering the moment of the trauma event. In a moment of extreme threat, an individual can become immobilised in fear – for example, if held at gunpoint, a possible response may be to freeze. This freeze response is experienced as a terrifying and 'close to death' event. It is likened by Levine to the state of almost unconscious that a mammal enters if caught by a predator – for example, an antelope caught by a lion can have a biological response of freezing, which is a survival response. The antelope appears dead, the lion may leave the kill aside to eat later, and then the antelope has a last chance to escape. If an antelope escapes such an ordeal, on becoming fully alert and mobile it performs a 'shaking out' of the body, almost like shaking the trauma away. This is termed a *discharge* and is thought to be a mechanism whereby built-up adrenaline and energy due to physical stress is shed. For the individual trapped at gunpoint, they may actually want to run away as fast as they can, but the immobilisation of fear in order to survive prevents them from physically acting. This intense impulse, which is overridden by the freeze response, is then trapped in the body perhaps for years to come (Levine, 1997; Van der Kolk, 2015; Rothschild, 2011).

Payne et al. (2015) state:

> SE™ claims that this style of inner attention, in addition to the use of kinaesthetic and interoceptive imagery, can lead to the resolution of symptoms resulting from chronic and traumatic stress. This is accomplished through the completion of thwarted, biologically based, self-protective and defensive responses, and the discharge and regulation of excess autonomic arousal. (Payne et al., 2015)

Often the neurological need for biological completion is what drives the nervous system to return to the moment of trauma in flashbacks. War veterans suffering from repeating nightmares can regularly wake at the exact moment of the unresolved trauma. Often only

when the trauma is processed or biological completion is achieved do the nightmares cease (Van der Kolk, 2015). For the above reasons, it was felt that SE was an essential part of the remote ACT-based integrative delivery in this study and, where appropriate, techniques of guiding participants' attention to interoceptive, kinaesthetic and proprioceptive experience was used to enable safe processing of their somatic element of trauma.

1.16.2 Psychosensory approaches

The above theory proposed for SE is one perspective on how the body links in with trauma responses. There are other theories of mechanisms which are proposed for psychosensory approaches such as havening, which I will touch upon here as this approach was incorporated into the remote ACT-based integrative model. Havening is a psychosensory approach developed by Dr Ronald Ruden (Ruden, 2018) which integrates nurturing touch with psychological techniques.

Despite havening being employed in clinics worldwide, with much supportive anecdotal evidence, there are very few empirical studies existing to support its efficacy or mechanisms of action. The first study to investigate the effects of 'havening touch' (HT) on subjective distress, mood, brain function and well-being was executed by Sumich et al. (2022), in which 24 participants underwent a single session of havening further to a self-reported distressing event. Electroencephalography was used to assess mood and resting state prior to, and immediately following, the session. The results showed that there was a greater reduction in subjective units of distress for sessions that included HT than sessions that did not include HT. Electroencephalography results showed an increase in beta activity and a reduction in gamma activity with HT. The study concluded that HT may accelerate reductions in distress with just one session. It is hypothesised that one of the mechanisms of change in havening is related to an increased production of oxytocin during the technique. A benefit of this approach is that it can be demonstrated remotely and carried out as 'self-havening' by the

client. This makes it a very accessible psychosensory technique and highly appropriate for this remote delivery, as described below.

1.17 Remote delivery

This research was conducted during the COVID-19 pandemic and within a partial 'lockdown' period, meaning that face-to-face therapy was not legally allowed to take place. Therefore, it was necessary to adhere to the governmental restrictions which were imposed at the time. This dictated that face-to-face therapy could not be researched, but also to an extent forced me to adapt as a counselling psychologist trainee to the societal needs of the time. Trialling a remote delivery of a trauma therapy during these restrictions was the only way to develop real-world research within the environmental restrictions at the time, thus making this research highly practice-applicable for the then-current context, which is a core expectation of counselling psychology research (Kasket, 2012).

2013 saw the publication of 'Guidelines for the Practice of Telepsychology' by the American Psychological Association. Here in the UK, the British Association for Counselling and Psychotherapy (BACP, 2019) also published good practice guidance for therapeutic working online. These paved the way for the growing interest in online or telephone psychotherapy often termed 'telepsychology'. Kotera et al. (2021) have discussed the benefits and costs of remote psychotherapy and state that there is strong support for the adoption of online psychotherapy. They cite some large-scale meta-analyses (Barak et al., 2008; Carlbring et al., 2018) which found that in person CBT and eCBT were broadly equivalent in outcomes.

The benefits generally found of online therapy were that, firstly, it can meet demands that face-to-face provision of therapy cannot. Secondly, online therapy may also offer individuals higher levels of anonymity and privacy and can be offered at a reduced cost due to decreased therapist overheads. 'These cost benefits may simultaneously open up access to previously disenfranchised and minority populations, who may have been excluded from

therapeutic support due to economic status' (Kotera et al., 2021,p 2). It has also been suggested that online therapies may encourage an increase in emotional expression and self-reflection.

There are some challenges reported with online psychotherapy, however, regarding relational aspects. Firstly, it has been posited that it is more difficult to identify and repair therapeutic ruptures. Secondly, it has been suggested that behavioural cues such as body language can easily be missed or misinterpreted. Kotera et al. (2021) found in their exploration of psychotherapists perspective of remote therapy that the majority of psychotherapists found that remote delivery enhanced the ability of cohorts who would normally avoid help seeking due to shame-sensitivity or due to geographical or physical restrictions, and that after the pandemic most psychotherapists intended to continue offering remote psychotherapy.

There have been some studies of remote ACT interventions, but these tend to be self-help directed courses rather than direct therapy sessions. Fiorillo et al. (2017) is an example of remote ACT intervention, although this study was not built around face-to-face therapy sessions; instead, ACT materials for the web-based intervention were adapted from an ACT-based self-help book for trauma (Follette & Pistorello, 2007). The intervention itself consisted of six individual web-based multimedia sessions, each approximately an hour long, which covered the following content areas: introduction and psychoeducation on interpersonal trauma and ACT, willingness and acceptance, mindfulness, defusion and self-as-context, clarifying values, and committed action consistent with values. As already stated, significant improvements were found for PTSD, depression and anxiety pre–post-intervention, and in addition PF increases were evidenced and correlated with the primary outcome measures. This was an important study as it illustrated the correlation of PF with trauma symptoms but also adds strength for the feasibility of web-based interventions. Further discussion of the implications for remote delivery have been considered previously.

1.18 Emergence and development of the research questions

My area of inquiry was influenced by both personal and theoretical perspectives and so was guided by both.

Another influencing factor for my research direction was the embedded paradigm of psychopathology surrounding the perception of trauma where CPTSD treatment is under-researched and perceived as long-term intensive work. Often trauma-processing work is delayed due to clinical concerns about re-traumatisation or inducing dissociative behaviour, which is a valid concern, but it means that many trauma survivors spend many months and sometimes years on waiting for treatments. This lack of understanding and research around CPTSD means that it is often perceived as untreatable, the most severe disorders are not studied adequately, and patients most affected by early trauma are often not recognised by services. Corrigan & Hull (2015, p. 79) argue that 'excluding individuals with such disorders as untreatable or treatment-resistant when viable alternatives exist is not acceptable'. I wondered if approaching these young people with acceptance, with non-judgemental curiosity and through an ACT approach which was heavily trauma-focused might address the three additional strands of severe and persistent CPTSD: 1) problems in affect regulation; 2) beliefs about oneself as diminished, defeated or worthless, accompanied by feelings of shame, guilt or failure related to the traumatic event; and 3) difficulties in sustaining relationships and in feeling close to others.

Another important consideration of context surrounding this research is that of COVID-19 and the impact that the global pandemic might have had on existing trauma survivors. The fact that the research took place during a pandemic could mean there would be an additional level of anxiety and emotional distress, and further individual and collective trauma is likely to have a compounding effect (Taggart et al., 2021). The first round of therapy was delivered during a lockdown. The need to explore effective modes of online therapy delivery to young people became especially pertinent during this extraordinary time as access to therapy was

even more restricted yet arguably was needed more than ever, as it was reported in the UK household longitudinal study (Pierce et al., 2020) that young people are among those experiencing the greatest increase in mental distress.

I felt that going with the flow of the change of paradigm towards a more trauma-focused and less psychopathologising lens would lead away from the medical model and more towards a transdiagnostic way of interpreting human suffering. This is aligned with the choice to use ACT as a suitable trauma treatment and also aligns strongly with the counselling psychology values of empowerment and collaborative growth: 'ACT does not see people as broken but as stuck' (Harris, 2009, p. 12).

It was my hope that, if a process-based, integrative approach online therapy could be developed and made available, this might prove beneficial in the long term to many traumatised young people unable to access face-to-face treatment.

1.19 ACT for trauma

Although ACT is currently not one of the diagnostically recommended treatments for PTSD, and despite scant research of the efficacy of ACT for trauma, there is emerging evidence that it can be helpful and effective with this presentation. Meyer et al. (2018) conducted an uncontrolled study where they delivered 12 individual sessions of ACT to 43 war veterans with PTSD and alcohol use disorder (AUD). There were significant decreases in both clinician-identified and self-reported measures of PTSD symptoms post-treatment which were maintained at the three-month follow up. Additionally, there were significant decreases in AUD-related symptoms and also depression with an improvement in quality of life.

Shea et al. (2020) conducted a review to examine the evidence for psychotherapeutic treatments for PTSD that did not focus on trauma. The meta-analytic comparison concluded that ACT was a promising emerging treatment for PTSD. One of the treatments reviewed was Fiorillo et al. (2017), in which a web-based feasibility ACT study was conducted with 25

adult females, all of whom had experienced a form of interpersonal trauma ranging from intimate partner violence to childhood sexual and physical abuse and adult sexual victimisation. A six-week web-based intervention was accessed remotely. PTSD, depression and anxiety were measured pre-post intervention and significant improvements were found. In addition, PF increases were evidenced and PF in turn was correlated with the primary outcome measures. This was an important study as it shows the correlation of PF with trauma symptoms but also demonstrates the feasibility of web-based interventions.

Another treatment reviewed in the Shea meta-analytic comparison was Lang et al. (2017), in which an RCT of ACT with war veterans conducted. It was concluded that there was no difference in the ACT group compared to the active control group. However, a weakness of this study was that the ACT therapists delivering the intervention were inexperienced and did not always follow up on between-session tasks or remember to set the tasks with the participants. The relationship to between-session behaviours could be said to be crucial in delivering ACT as the adherence to the protocol and internal shifts that occur are linked to behavioural changes which are made. The check-in at the beginning of a session as to how successful these tasks were, with a view to gently but methodically examining the levels of commitment to action and motivation towards one's internal goals, is crucial in ensuring the client is 'bought in' and invested in the ACT therapy. Being remiss in this could be seen to be actively incongruent with ACT, even though the fidelity testing reported high levels of adherence to the modality. The reason for this is that, if the therapist is not aware exactly where the client stands on levels of commitment and willingness to act upon intersessional behavioural tasks, this will lead to a disconnect between therapist and client and it will be almost impossible to gauge level of creative hopelessness or to challenge any obstacles which stand in the way of the valued action. It is an example of avoidance on the part of the client which is then being colluded with by the therapist, albeit perhaps unwittingly. But nevertheless it will result in continued avoidance being engaged in by the client.

A number of studies have shown the benefits of ACT in improving PF levels which then appears to mediate trauma symptoms. Reddy et al. (2011) studied returning war veterans from Iraq and reported greater relationship adjustment and reduced physical aggression perpetration and victimisation among those showing higher levels of PF.

Another study with Iraq and Afghanistan war veterans (Elliott et al., 2015) found that PF, along with greater social support and lower use of avoidant coping, was a protective factor against both PTSD and depression. Furthermore, PF was shown to be protective against PTSD symptom development and externalising behaviours among veterans exposed to trauma (Dutra & Sadeh, 2018).

Jansen and Morris (2017) conducted a case-series study aimed at assessing the efficacy, acceptability and safety of ACT for outpatients suffering from PTSD with comorbid trauma. Reliable improvements were found for all outcome measures according to the reliable change index, indicating improvements in symptoms of PTSD, depression and anxiety (all $p < .05$), and there was a reliable change in levels of PF for the clients at follow-up. This study did not take into account confounding variables such as spontaneous recovery, however, and was limited by taking measures at only four time points. It also collected only quantitative data, overlooking an opportunity to utilise qualitative data to further understand participants' individual experiences and meaningfulness or to triangulate the quantitative findings. However, being the first study to combine ACT for PTSD and psychosis, it demonstrated ACT's efficacy for complex comorbid conditions. There is no research to date examining young people with this focus, and certainly not with a remote delivery.

Woidneck (2014) conducted one of the first studies using ACT for post-traumatic stress (PTS) in adolescents. ACT was delivered over 10 weeks to 7 adolescents (4 from a community sample and 3 from a residential sample). Results showed a decrease in PTS symptomology across both samples with mean reductions in self-reported PTS

symptomology at post-treatment of 69% and 81% in the community and residential samples, respectively, and an overall 68% and 84% respective reduction upon follow-up. This is one of the few trauma studies conducted on youth, but it indicates the feasibility and acceptability of ACT as a treatment for this age group.

1.20 Summary of literature

The consensus of literature agrees that ACT is beneficial for both adults and adolescents in the community. The majority of research, though, has been feasibility and acceptability pilot studies and case studies, lacking power and ecological validity. Yet evidence suggests that ACT is helpful for stress, chronic pain, behaviour disorders, OCD, PTSD and learning disorders (Halliburton & Cooper, 2015).

More reviews and meta-analysis are emerging that provide empirical evidence for the efficacy of ACT on improving PF, which is seen as an important mediating factor for anxiety and depression. ACT has also been shown to have pre-post session improvements on general stress levels and psychosis-related stress (Bach & Hayes, 2002; Johns et al., 2016).

ACT neurological processes appear to work in a different way to CBT processes (Burklund et al., 2017) and reviews and meta-analyses (including Halliburton & Cooper, 2015; Swain et al., 2015; Lønfeldt et al., 2017) provide encouraging indications for the potential benefits of ACT for young people experiencing trauma, for which very little research exists. No RCTs have yet been conducted using remote ACT with 18–24-year-olds, and there are very few empirically supported studies which have examined a remote TF-ACT approach supplemented with SE and psychosensory techniques.

1.21 Relevance to counselling psychology

Cooper (2009) describes the perspective of counselling psychology as being less pathologically orientated, working towards restorative, positively focused recovery pathways,

encouraging each individual to reach their potential – and doing so through following their own intrinsic values. ACT, by its very nature, is a therapy that engages the process of becoming aware of our deepest goals and wishes and enables us to move actively towards them. This makes ACT an extremely suitable counselling psychology approach which could help to influence clinical services to move more towards focusing on patients' strengths rather than their deficits to become a 'recovery-oriented service' (Cooper, 2009; 2012). Working in collaboration with another towards an aim is a core value within counselling psychology, and as ACT is by nature intrinsically a collaborative journey towards identified goals, this aligns it well with a counselling psychological approach.

If adopting a 'life course perspective' (Douglas et al., 2016), we acknowledge that development must involve a perspective of both context and plasticity. Post-traumatic growth (Tedeschi & Calhoun, 2004) *can* occur after extreme mental health crisis, so if we promote young people as active organisms within their challenging environment through remote ACT-based integrative approach, can we promote their agency and growth, despite living through systemic stressors such as a pandemic?

1.22 Conclusion

The current overarching paradigm of the medicalisation of mental health is still in effect, though this theoretical approach is gradually changing as research provides evidence that an individual's inner dialogue and interpretation of experiences can exacerbate and maintain mental health disorders or alleviate them (Lønfeldt et al., 2017; Livheim et al., 2020; Burklund et al., 2017). Current recommended treatment of CBT and exposure therapy for trauma and other moderate-to-severe mental health disorders seems to be inadequate for many young people. There is a huge gap in current research regarding effective psychological therapies for young people, in particular remote or online interventions which increase accessibility and flexible delivery. Mindfulness- and acceptance-based interventions are showing us that ACT is acceptable and effective for these clients at reducing stress,

anxiety and depression and increasing PF, and furthermore SE has shown to be effective in treating trauma, although there is a paucity of research in these areas and empirical studies with sufficient controls, power and ecological validity are extremely rare. To bridge this gap, I suggest a much-called-for change of paradigm towards individually tailored and transdiagnostic approach to treatments for young people experiencing trauma in this hugely influential time of their lives.

An important potential benefit is empowerment of the young person in therapy to identify their own intrinsic goals. This approach aligns strongly with my felt responsibility as a counselling psychologist trainee to pursue promising lesser-known transdiagnostic therapies.

The suggested research approach is integrative and addresses not just cognitions but the whole person. Approaching recovery through a trauma lens means valuing the whole context of the person, including their physiology, internal and external perceptions and behaviours, and intrinsic values and aims for life as well as therapy. An integrative approach also has more chance of enabling the client to reach integration.

Chapter 2: Methodology

2.1 Ontology and epistemology

The purpose of research is to yield useful and meaningful knowledge about the world. This is inevitably influenced by assumptions which are held by myself as researcher regarding the nature of reality (ontology) and intrinsic beliefs about how knowledge is produced (epistemology), which is determined by theoretical opinion derived from a range of philosophical paradigms (Poznanski & McLennan, 1995). Due to these elements creating the context for research, this also has a direct influence on any chosen methodology and various methods of engaging with the inquiry, and so should be defined from the outset.

In my efforts to determine the research paradigms informing this study, I used Poznanski and McLeccan's (1995) guidance and Bishop and Yardley's (2017) recommendations to identify and synthesise the assumptions lying beneath the overall research itself and the research question. Creswell (1998) stated that 'Qualitative researchers approach their studies with a certain paradigm or worldview, a basic set of assumptions that guide their inquiries' (p. 74). Believing this to be true, I began from the outset to identify and align myself with firstly an overarching worldview which ultimately brought about the research question and, secondly, to determine a suitable methodology with which to examine my route of inquiry. Below is the definition and detail of my positions held for the purposes of this study.

2.1.1 Ontology

Ontology is relevant to all stages of research and is the way we understand reality, what we know and how we come to know this, ranging from a realist view – said to exist independently of human thought (Pilgrim, 2020), where the external objective world exists independently and truth is said to be measured objectively and perfectly – to an idealist position, which states there is no objective world to be known, only a myriad of subjective realities with an assumption that reality is an intellectual construction (Larkin et al., 2006). Between these two perspectives lies the critical realist view, which 'does not deny that there

is a real physical world but does question the extent to which social scientific data can truly or fully reflect such a real world' (Howitt, 2019, p. 33).

Therefore, while I consider that some objective truths exist in the world independently of internal experience (for example, an individual's factual account of a traumatic car accident or kidnapping), there also exists an internal experience which may be subjective to that individual. Two people experiencing the same incident can respond internally and physiologically uniquely. (This reflects the evidence that some trauma survivors of the same incident can go on to recover with no PTSD while others can develop persistent PTSD symptoms.) Therefore, I define my ontological position with regard to this study as critical realist, situated between realist and relativist positions.

2.1.2 Epistemology

Epistemology asks the question 'How and what can we know?' (Willig, 2013, p. 37) and is shaped by the ontological position of the researcher and the beliefs they hold about truth and the gathering of knowledge.

Scientific research, including psychological research, has historically comprised largely quantitative methodologies, which are underpinned by a realist position, generally intending to objectively test generated hypotheses (Pistrang & Barker, 2012). These methodologies work by deduction, seeking to deduce a phenomenon or concept, and are usually influenced by already existing evidence, meaning that novel theoretical insights around the area of inquiry can be limited (Willig, 2013). As it is important that therapy approaches are based on an evidence base in order to replicate and deliver to services effectively, it was deemed that part of this study should be quantitative in that standardised measures be used in order not only to test the efficacy of the intervention but also to identify which processes and elements of experience were most affected.

Contrastingly, qualitative methods focus on subjective experiences and how reality is socially constructed (Denzin et al., 2017). This approach to research is more inductive in nature and exploratory, and in this way novel illuminations of phenomena can be discovered (Flick, 2018). A qualitative approach, therefore, was also deemed appropriate as its more fluid, inductive approach would allow for a deeper understanding of the processes and mechanisms of the intervention as they related to each individual, which aligned well with the study's aims and adopted paradigms. This was also felt to be essential for this topic of inquiry, where the participant population being studied had already experienced disempowerment and helplessness through trauma. Providing each individual with a voice was deemed imperative in order to re-empower and recognise this underserved group. Therefore, mixed methods was chosen as the most appropriate methodology with which to undertake this study in fitting with the ontology.

Biesta (2010, p. 8) argues that there are postulated controversies around mixing quantitative and qualitative methods but that these …

> … seem to focus particularly on epistemological questions about the objectivity or subjectivity of knowledge and ontological questions about causality and the specific nature of social phenomena. What is remarkably absent is a discussion in terms of the purposes of the research – and it is important to acknowledge that decisions about the wider purposes of research provide the framing for specific research questions, not the other way around. (Biesta, 2010, p 8)

I therefore felt justified in allowing the research itself and the research question to weigh heavily in influencing my epistemology. I felt that, as the research question was trialling a fresh intervention approach, it was important that some standardised measures were used (implying a real truth can be established around measuring levels of trauma and quality of life in a quantitative manner), but I also felt it was imperative to add more context around

these measures in terms of the individual experiences of the participants through a more qualitative element. Embracing both quantitative and qualitative aspects adds context and deeper meaning to singularly objective measurements (Greene et al., 1989), a combination of objective truth-seeking and the subjective experience of the individual (Willig, 2012).

A common theoretical framework into which quantitative and qualitative approaches can sit together is possible as argued by Bishop and Yardley (2017), who discuss the impact of Dewey's pragmatic influence regarding his theory of action (Dewey, 1896), termed the 'reflex arc' concept, which is summarised as a theory of experimental learning. Dewey speaks of the ability of all living organisms (including humans) to establish and maintain a dynamic interaction with their environment, which as a result develops their predispositions to become more focused and attuned to their forever-changing environment. This, he claims, is how they learn. However, this way of learning is not about 'how the outside world is'; 'It is a learning process through which living organisms acquire a complex and flexible set of predispositions for action' (Biesta, 2010, p. 11).

As my worldview is very much informed by my biopsychosocial approach, being a body worker who has gone on to study psychology but also one who is heavily influenced by knowledge from various other fields, including neuroscience and epigenetics, I very much believe that the biopsychosocial feedback loops within which we all exist marry well with Dewey's philosophy. Groundbreaking epigenetic studies have demonstrated that that common DNA sequence variation and rare mutations account for only a small fraction (1%–2%) of the total risk of inheriting personality traits and mental disorders (Dick et al., 2010; Gershon et al., 2011). Which poses the question: what are the other influential factors in the development of our psychological experience? The fact that gene expression itself can be altered depending on the environmental/behavioural cycles of an individual speaks strongly to Dewey's reflex arc concept adding weight to this epistemological approach.

Dewey developed the epistemological view of pragmatism, and pragmatism has since been put forward as a viable philosophy for combining both qualitative and quantitative inquiry (Greene & Caracelli, 2003; Tashakkori & Teddlie, 2010; Morgan, 2014). Dewey defines knowing as being related to 'the transformation of disturbed and unsettled situations into those more controlled and more significant' (Dewey, 1929, p. 236). He also speaks of knowing as being necessary in order to improve levels of control, and claims that knowing 'facilitates control of objects for purposes of non-cognitive experience' (Dewey, 1929, p. 79). This way of thinking matches my own perspective in that it relates to the individual discovering and knowing more about their trauma experiences and understanding the effects of these in a way that enables them to recapture control over their responses and, ultimately, over their subsequent experiences of life.

Functional contextualism (FC) is another aspect of the pragmatic approach taken within this inquiry. It is related to but differs from descriptive forms of contextualism, such as social constructionism, as its analytic purpose is not merely to 'appreciate' the participant's situation within the whole; more specifically, the purpose of FC is the 'prediction and influence of psychological actions with precision, scope and depth' (Hayes, 1993, p. 11). What differentiates FC from other contextualist approaches is that *function* is key. The core unit of analysis adopted is always the 'act in context' (Skinner, 1974, p. 234), the ongoing situated purposive action (Hayes, 1993; Pepper, 1942). Therefore, within FC, all knowledge is inherently practical and must be linked to some specific goal within a context.

This mixed-methods study followed a sequential explanatory strategy, comprising two phases. The first phase of the research study involved the collection and analysis of quantitative data, while the second phase involved the collection and analysis of qualitative data.

2.2 Assumptions underlying the research question

- Individuals who have experienced higher numbers of ACEs have been reported to be more likely to suffer from adverse psychological, physiological and social outcomes as well as reduced life expectancy (Bellis et al., 2014; Leitch, 2017; Reavis et al., 2013)
- The pandemic in which the research took place was a further traumatising event which could compound existing traumatic experiences leading to increased trauma symptoms (Karatzias et al., 2020; Bridgland et al., 2021; Horesh and Brown, 2020)
- Young people up to the age of 25 are at a critical neurobiological developmental phase for brain development and at this time are more susceptible to developing anxiety and depression (Fuhrmann et al., 2015; Sawyer et al., 2018; Arain et al., 2013)
- At this crucial developmental stage, they are also capable of developing coping strategies such as PF.
- ACT has been shown to increase PF, so there is an assumption it could be used to increase PF levels in young people experiencing trauma.
- PF may be a mediating and protective factor of trauma symptoms and other comorbid conditions for young people (Richardson & Jost, 2019).

The research question therefore is: *Can remote ACT for young trauma survivors improve outcomes and quality of life despite living through a pandemic and further trauma?*

2.3 Aims

The primary aims of this study are to investigate whether trauma symptomology as the primary variable being measured in this study can be mediated through the primary process of PF, and secondarily if whether as a result of this change whether comorbid presentations of anxiety and depression change as a result and as a secondary gain.

Additionally, the study will test whether PF is a mediator for post-traumatic growth, personally defined proactive behaviours and quality of life for young people.

Therefore, the objectives of this study are:

1. to examine effects of a remotely delivered ACT-based integrative approach on self-report of trauma symptoms during a pandemic, specifically in relation to PF and core processes of the model underpinning ACT
2. to ascertain whether a decrease in trauma symptoms as a result of increased PF has a secondary effect on anxiety and depression levels
3. to explore if a reduction in trauma symptoms indicates further secondary positive gains such as improved quality of life, post-traumatic growth and increased behaviours towards individually selected goals
4. to begin to assess acceptability and feasibility of remote ACT-based integrative approach for this population
5. to understand individual perspectives of participants regarding perceived change and attribution for these changes.

Objectives 1, 2 and 3 shall be predominantly addressed by the quantitative aspect of research, and objectives 4 and 5 shall be predominantly addressed via the qualitative aspect of research.

2.4 Hypotheses

It is hypothesised that an increase in PF may mediate a decrease in trauma symptoms, anxiety and depression. Part of living with trauma symptoms is related to re-experiencing the past, and as a result the fear and anxiety generated by this can exacerbate experiential avoidance, creating more separation and isolation – particularly during a pandemic, when experiential avoidance can reach high levels and potentially compounding and exacerbating trauma symptoms.

2.5 Research design

2.5.1 Choice of method and analysis

This was a mixed-methods study. The quantitative aspect of the study followed the single-case research design (SCRD). A fixed mixed-methods multiple-case series following a staggered ABC format was used, with A representing the setting of the baseline period, B representing the intervention phase and C representing an interview and final batch of measures collected after a period of time had passed following the ending of therapy, six to eight weeks later.

Strictly speaking, internal validity increases if ABA or ABCD forms of delivery are used, with each letter representing a different phase of treatment or a withdrawal of the intervention. This is because it can be more clearly seen if an effect changes on withdrawal of the intervention through using a SCRD in a therapeutic study. However, the difficulty with employing ABA or ABCD structure within a therapeutic intervention is that the very nature of therapy implies that the client would be expected to learn strategies or to have found a benefit in the A-phase session interventions which would leave lasting change or growth. Therefore, on withdrawal of the therapy, there would not necessarily be observable change in symptoms being measured. I have attempted to address this concern by the use of multiple single cases and staggered-delivery of intervention, which should allow demonstration of replicable mechanisms across the cases. This means that each participant

began therapy at different points in time, increasing internal and external validity while maintaining a comparison of each participant's own scores to their own baseline, which is seen as the control, instead of using a control participant or group.

2.5.2 Strengthening validity

As Gearing et al. (2011) observe, 'Monitoring the delivery of intervention is considered the heart of fidelity.' So, although the current study may be seen by some to be lacking the validity an ABCD design can bring, introducing fidelity testing will add an element of integrity to the study overall, as this will reduce the possibility of obfuscating accuracy of the intervention results. This will increase the overall validity of any findings of the study.

Despite the above caveats regarding internal reliability, it remains that SCRD is still thought of as the most appropriate way to study processes of therapeutic change with individual clients and to document improvement (Kazdin, 1981). Therefore, multiple-baseline AB design remains frequently perceived as the best option, offering the most rigorous design to counselling research (Ray, 2015), and so was seen to be most appropriate for this study.

The qualitative aspect of the study was to combine the self-reported measures with data collected through a semi-structured interview called the 'change interview', which offered an opportunity for triangulation and to strengthen validity. The semi-structured interview (see Appendix 1) provided complementarity, expansion and deeper understanding of the quantitative results within cases.

Due to the fact that qualitative aspects could be captured by various methods, interpretative phenomenological analysis (IPA) (Smith et al., 2009) was initially considered in the design. However, IPA is bound to a phenomenological epistemology and has a dual focus both on the unique characteristics of individual participants and on patterning of meaning across participants. As this is a mixed-methods study and the quantitative method is single-case design, each participant is being considered according to their own individual context and

baselines. And although the processes of change and their meaning are relevant to the research, they are specifically of interest within the framework and context of ACT as an effective intervention. Therefore, it is of primary concern which of the ACT processes were effective for each individual. After careful consideration, I decided instead on utilising the 'change interview' as a triangulating qualitative tool alongside the quantitative data for a 'within case' approach to formulation and to analyse this using framework analysis, a type of content analysis described in detail in Section 2.10.3.1. This research is focusing on a case-by-case basis, and each participant is their own control, so I decided to relate each individual's outcomes to their change interview and then to synthesise this across data cases to determine whether there is evidence of change or attribution to ACT overall. The change interview data would therefore be treated in a structured way as another within-case source of data. Using framework analysis with the change interview in this way aligns with the overall pragmatic stance of the research, whereby qualitative data can be used within a mixed-methods approach primarily to 'elaborate and illustrate quantitative findings' (Bishop and Yardley, 2017, p. 3). Each individual set of quantitative results can then be explored in relation to their individual change interview data.

2.5.3 Quantitative strand

2.5.3.1 Outcome measures

Case-study design has been shown to be more exploratory and relevant to individual change when many variables are measured with an open attitude as to what may have been significant for the individual (Morley et al., 2018). So, although the main process outcome of psychological flexibility was of key interest, as well as any mediating effect this may have on trauma symptoms, it was seen as beneficial to take several other measures which research has shown to be linked to PF to capture as much data as possible in order to understand how ACT may have been impactful, useful or, indeed, unhelpful to individuals. All the measures that were used have been outlined below.

2.5.3.2 International Trauma Questionnaire (ITQ)

As mentioned earlier, the WHO's definition of PTSD was updated and a new construct of CPTSD was created in 2019. The newly termed construct of CPTSD comprises the original six PTSD symptoms plus six other symptoms termed 'disturbance in self-organisation' (DSO) symptoms. Each group of symptoms has three subgroups. The PTSD cluster comprises re-experiencing of the trauma in the present, avoidance due to the trauma and a sense of current threat. The CPTSD cluster comprises the three PTSD subgroups then additionally three subsets that represent DSO symptoms: affective dysregulation, negative self-concept and disturbances in relationships. For the diagnosis of PTSD or CPTSD to be fulfilled, there is also a requirement of traumatic exposure and significant impairment in functioning to be present. Participants were asked to indicate how much they have been bothered by each of their core symptoms in the past month, considering their most traumatic event, using a five-point Likert scale ranging from *not at all* (0) to *extremely* (4). To qualify diagnostically for PTSD, a score of ≥2 (*moderately*) for at least one of two symptoms from each of the re-experiencing, avoidance and threat clusters is required, and at least one functional impairment item must be measured (≥2).

The ITQ (Cloitre et al., 2018) was used as a trauma symptom measure in order to differentiate between PTSD and CPTSD symptoms. The participants were a treatment-seeking sample who considered themselves to be affected currently by past or current trauma (including the global COVID-19 pandemic). As the study is not primarily aimed at reducing symptoms and is focused on the transdiagnostic approach of the ACT intervention, it was still seen as useful to use standardised measures in order to monitor changes in participants' perceived experience and quality of life in order to determine if any second-order change due to increased PF may have led to changes in experiences of all measures. Both PTSD and CPTSD symptom scores were recorded throughout to show any change in either direction of trauma experience, despite CPTSD scores normally being clinically discarded if PTSD levels are not met.

2.5.3.3 CompACT

PF was measured via the CompACT (Francis et al., 2016). The three factors of the CompACT (openness to experience, behavioural awareness and valued action) were arrived at by considering the six core processes within the original ACT hexaflex (Figure 2) and categorising and re-grouping these down into the 'triflex' (Harris, 2009). The three aspects of the triflex are commonly termed *being open*, *noticing* and *being active*. An exploratory factor analysis suggested a theoretically coherent three-factor structure (clustering ACT's six processes into three dyadic processes) for a 23-itemed version of the CompACT. Scores are derived by summing responses for each of the three subscales (*openness to experience*, *behavioural awareness* and *valued action*) or the scale as a whole (CompACT total score). Although the triflex terms are slightly different, the concepts relate directly to the CompACT, of which overall Cronbach's alpha was 0.91. In previous studies, high levels of internal consistency were found for the PTSD items (α = 0.88), the DSO items (α = 0.90) and the total scale (α = 0.91) (Murphy et al., 2020).

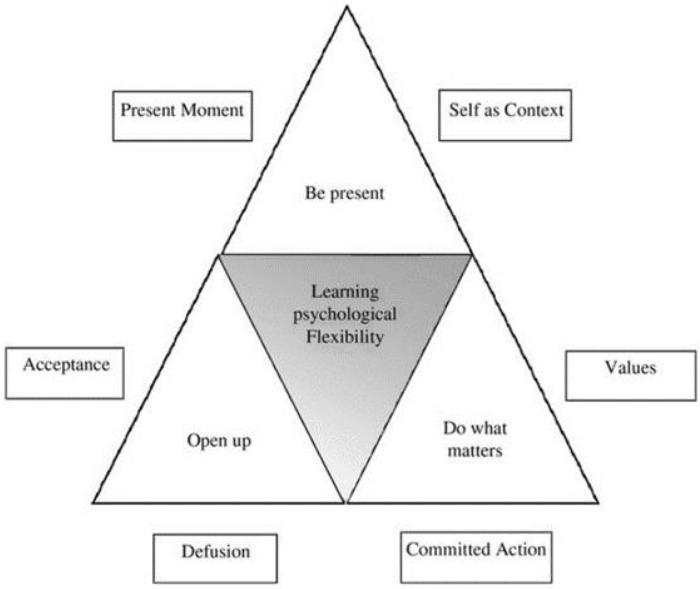

Figure 4. The triflex, which has developed from the ACT hexaflex (from Harris, 2009). The six hexaflex processes are combined and reallocated to three areas of focus: *being present*, *opening up* and *doing what matters*.

2.5.3.4 GAD-7

The GAD-7 (Spitzer et al., 2006) is a seven-item, self-report anxiety questionnaire designed to assess the patient's health status during the previous two weeks. The items ask about the degree to which the patient has been bothered by feeling nervous, anxious or on edge, not being able to stop or control worrying, worrying too much about different things, having trouble relaxing, being so restless that it is hard to sit still, becoming easily annoyed or irritable and feeling afraid as if something might happen. It demonstrates good reliability, as well as criterion, construct, factorial and procedural validity (Spitzer et al., 2006). A cut point was identified that optimised sensitivity (89%) and specificity (82%). The GAD-7 is a valid and efficient measure used frequently in clinical practice.

2.5.3.5 PHQ-9

The internal reliability of the PHQ-9 has been shown to be excellent (Kroenke et al., 2001), with a Cronbach's alpha of 0.89 and 0.86 in two retrospective studies. Test–retest reliability of the PHQ-9 was also excellent; correlation between the PHQ-9 completed by patients in the clinic within 48 hours was 0.84, and the mean scores were almost identical (5.08 vs 5.03) (Kroenke et al., 2001).

2.5.3.6 Emotional Regulation Questionnaire (ERQ)

The ERQ is a ten-item self-report questionnaire based on Gross's (1998) process model of emotion regulation. It is a commonly used measure of emotion regulation, specifically two emotion regulation strategies: cognitive reappraisal (changing the way one thinks about potentially emotion-eliciting events) and expressive suppression (changing the way one responds behaviourally to emotion-eliciting events). Cognitive reappraisal to regulate emotions is generally associated with healthier patterns of affect, social functioning and well-being than is expressive suppression. In a recent study (Preece et al., 2020), confirmatory factor analyses in each sample demonstrated that the traditional two-factor model (comprising cognitive reappraisal and expressive suppression factors) was replicable and an excellent fit to the data. In all samples, ERQ cognitive reappraisal (α = .89–.90) and

expressive suppression (α = .76–.80) scores had acceptable to excellent levels of internal consistency reliability (Preece et al., 2020).

2.5.3.7 Rumination Response Scale (RRS)

The RRS is a two-factor model developed from the response styles questionnaire (RSQ) (Nolen-Hoeksema & Morrow, 1991). It consists of 22 items that assess responses to dysphoric mood that are focused on the self, on symptoms and on possible causes and consequences of moods. The internal consistency of this scale (Cronbach's alpha) was .89.

Support for this two-factor model of rumination was found by Treynor et al. (2003). These analyses indicate that the two components, reflective pondering and brooding, are differentially related to depression in regard to predictive ability and gender-difference mediation.

2.5.3.8 Quality of Life Scale

First developed by American psychologist John Flanagan (1978) and since updated by Burckhardt and Anderson (2003), the Quality of Life scale (QOLS) is a self-reporting measure which identifies 16 domains such as health, work, friendship and independence. It has had high test–retest reliability over several studies (r = 0.78 to r = 0 .84) (Burckhardt et al., 1989) with clinical samples experiencing chronic illness as well as within samples of individuals suffering from obstructive pulmonary disease (Anderson, 1995). The 16-item QOLS satisfaction scale was also internally consistent (α = .82–.92) (Burckhardt et al., 1989).

2.5.3.9 Post-traumatic Growth Inventory

The 21-item Post Traumatic Growth Inventory (PTGI) (Tedeschi & Calhoun, 1996) gives an overall score for five subscales (range: 0–105): new possibilities, relating to others, personal strength, spiritual change and appreciation of life. It is one of very few standardised and validated questionnaires on positive post-traumatic change.

Psychometric properties offer good internal consistency for the total scale (α = 0.91) and its subscales, ranging from α = 0.85 to α = 0.70 (Silva et al., 2018). Silva et al., in their sample of 300 Brazilian university students, also observed evidence of construct and convergent validity through correlations with post-traumatic and depression symptoms and personality, demonstrating validity of the scale.

2.5.3.10 Qualitative strand measure

A semi-structured interview called the change interview (Elliott et al., 2001) was administered post-intervention. The interview was administered after a time interval of four weeks to two months of the intervention ending. This was phase C of the ABC approach and included a full battery of all the measures. This was included in the study for two reasons: firstly, to add a richness to the quantitative data in line with the aims of the study, and secondly, to provide sufficient exploration into potential confounding influences. To this latter end, it could help to rule out any other reasonable explanations of change other than the controlled aspect of the intervention. The interview schedule comprised nine questions covering helpful or unhelpful aspects, changes, and perceived attributions for these. Each specific change was rated on a Likert scale for levels of *expected change*, *importance* and *likelihood of change occurring without ACT*.

Data from the change interview was evaluated in terms of such questions as: *How have you found the ACT therapy? Have you noticed any change in the way you think, act or speak since therapy began? Was there anything detrimental about the therapy? Was there anything difficult but which was helpful? To what do you attribute any change* (including factors outside of therapy)*? Has anyone else noticed any changes?* The full interview schedule is given in the Appendix 1.

A subjective research journal was kept in order to provide additional information and perspective, enabling further triangulation of data at the analysis stage.

2.6 Setting and procedure

2.6.1 Sampling considerations

2.6.1.1 Setting

The sample of 18–25-year-olds was chosen due to the implications of continued extensive brain development in this age group (Blakemore, 2018; Fuhrmann et al., 2015). The aim of the study was to work with individuals who were still developing neurobiologically, with a view to improving outcomes of trauma, particularly in those who were yet to go through the final synaptic pruning stage of brain development. Optimum recovery from trauma was of interest, and in particular early intervention, before more possibly hardwired responses to trauma-triggering stimuli may have been established in the individual. I also thought that the COVID-19 pandemic, and the fact that many students would have been forced to make a change to online learning, may have meant that a transition to online therapy might have been easier for this group of participants, who were now accustomed to using online platforms for learning.

2.6.1.2 Inclusion criteria

Inclusion criteria were therefore students aged 18–25 who were living in the community in the UK (due to opportunity sampling of City University students, all participants were currently living in London, at least during term time) who were experiencing low to severe levels of anxiety, who could identify at least one traumatic incident in their experience (identified as a feeling that they are still presently affected by a stressful event that happened in the past) and were capable of giving informed consent.

2.6.1.3 Exclusion criteria

Participants were excluded if they were experiencing psychosis, as distorted perceptions of reality could have prohibited their ability to engage and process the intervention content. Those presenting with high risk of self-harm or suicidal ideation were also excluded from the research, as it was deemed inappropriate for me to be working with this level of risk as a sole worker, without the support an organisation can bring to working with such clients.

2.6.2 Recruitment

Opportunity sampling was employed in order to recruit participants. Recruitment took place via an initial invitation email which was sent out to psychology undergraduates. Students who expressed an interest were offered a telephone call to discuss the research and supplied with information sheet (see Appendix 2), as well as being invited to ask any questions they had. Participants were therefore all undergraduate students at City University. Any interested students then replied to the email and were sent a detailed information sheet about the study. Once they had read the information sheet, they had the opportunity to ask any questions via email, and if they were still interested they went on to fill in a Qualtrics questionnaire checking for suitability of trauma symptoms and levels and answered the built-in consent form. At all stages it was made clear that the participants could withdraw consent at any point but still continue with the therapy.

Any potentially suitable participants were then offered a telephone call by me to give an opportunity to ask further questions and to discuss the therapy contract should they decide to take part. A copy of the therapy agreement (see Appendix 3) was exchanged, and I then called any potentially suitable participants to give them an opportunity to ask further questions and to be set up on Pragmatic Tracker ready for screening. I had a special research account arranged to be set up through City University. (Pragmatic Tracker online software is a reliable GDPR (General Data Protection Regulation) (Information Commissioner's Office, 2018) -compliant and secure system as well as an approved data-collection and -storage system.) Initial screening consisted of the participant remotely completing several measures via Pragmatic Tracker to identify levels of anxiety, depression and trauma symptoms. Individuals who met the inclusion criteria were then selected for the study. Those students who met the inclusion criteria but were deemed to be unsuitable for a research study due to high levels of risk were signposted to suitable organisations for further support. (There was only one participant who fell into this category, as she presented high risk and was also currently receiving treatment through the NHS. She was emailed with

details of other organisations who could offer her support once her current treatment phase ended, and she was also encouraged to contact her GP if the current support was not meeting her needs.) After giving informed consent and having had an opportunity to ask any questions about the study, individual therapy contracts were then signed by each participant before the intervention commenced.

The recruitment process occurred in two batches, the first in April 2021 and the second in October 2021. Twelve people expressed interest in the study, all of them female. Eight met the inclusion criteria post-screening, and during the collecting of baseline measurements two participants were lost due to attrition. (Neither participant gave a reason for not completing the baseline measures.) This left six remaining participants who met the inclusion criteria and also completed all baseline measures.

Of the sample who had started therapy, four participants completed the six sessions and two participants dropped out of the study mid-way through, one because they felt they were not yet ready for therapy and another because they felt they could not commit to therapy at that time due to too many other stressors in their life.

2.6.3 Demographics

Additional data collected was in line with standard details required when starting therapy, such as gender, age, existing diagnosis and previously undertaken therapy. This information was useful in that it helped to establish any homogeneity and would prove useful in understanding representativeness of the data in relation to the wider trauma population. All participants were female and aged between 18 and 25. All six original participants considered themselves to be still presently affected by past traumas. Three of the participants' traumas had occurred more than two years in the past, but three of them remained within current familial relationships which were perceived to be causing them ongoing trauma. All six recruited participants also considered the pandemic to have caused

them additional stress. All had received past treatment for their traumas: two had received trauma-focused CBT and the other four had received standard CBT.

2.6.4 Measures schedule

See Table 2 for a schedule of measures. In 'Baseline', 'Tn' signifies the unknown length of baseline period (minimum: three weeks). In 'Intervention', 'T6' assumes weekly measures taken over a six-week period. Each participant began the intervention at different times. This meant that the intervention was time-staggered overall. As can be seen from the schedule, ITQ and PTGI were not taken weekly as this was not suited to the measures. ITQ questions are based on the past month, not collected weekly, and similarly PTGI was also not suited to a weekly measure. This also meant there was no baseline set for these measures, which may have implications for generalisability of results. (This is discussed further in results section.) Baseline stability was aimed for in all other measures that were taken weekly.

Table 2
Temporal interval schedule of measures taken.

Measure	**Pre-treatment**	**Baseline**	**Intervention**			**Two-month follow-up**
			T1	…	T6	
GAD-7	✓	✓	✓	Weekly	✓	✓
PHQ-9	✓	✓	✓	Weekly	✓	✓
ITQ	✓	✓		Weekly	✓	✓
QOLS		✓	✓	Weekly	✓	✓
CompACT		✓	✓	Weekly	✓	✓
ERQ		✓	✓	Weekly	✓	✓
RRS		✓	✓	Weekly	✓	✓
PTGI		✓		Weekly	✓	✓

Note: T1 represents time point 1 (week 1) trough to T6 (timepoint 6) week 6 of the intervention. Pre-treatment is the screening process. Note that the ITQ was not administered weekly as it worded to be filled out at 1-month intervals.

Table 3
Information on psychometric characteristics and reference group norms for the measures used in this study.

Test	Sample	N	Mean	SD	Internal consistency (Cronbach's alpha)
GAD-7	Adults primary care	2739	14.4		0.89
PHQ-9	University students	582	5.72	0.28	0.83
ITQ	Community sample – no diagnosis	859	1.19	1.36	0.77
	Community sample – PTSD	56	1.57	1.58	
	Clinical sample – no diagnosis	60	2.70	1.58	
	Clinical sample – PTSD	36	2.61	1.55	
CompACT	Non-clinical adult sample	352	31.34		0.91
PTGI	Community sample	28			0.90
ERQ	Cognitive Reappraisal	1048	3.64 (men) and 3.14 (women)	1.11 (men) and 1.18 (women)	0.79

Note: A comprehensive battery of standardised self-report measures were implemented weekly.

2.7 Data confidentiality and storage

Systems and processes were considered from the outset and all data held securely on encrypted devices was anonymised. According to the GDPR, adults have the right to access their personal data, request rectification, object to processing and have their personal data erased. This was outlined in the consent form (Appendix 4). It was also made very clear to participants that they could opt out at any time. The audio and visual files of session recordings were stored on an encrypted device and then transferred to a secure OneDrive, only to be accessed in order to share with an ethically approved external professional for fidelity-testing purposes. City University guidelines state that it is recommended for students to retain their data until after graduation, so data will therefore be kept on the university's encrypted platform for one year following my graduation, whereupon it will be erased.

2.8 ACT-based intervention

As already stated, a large body of evidence suggests that a phase-based treatment approach is effective for CPTSD (Cloitre et al., 2010) comprising stabilisation, reprocessing of trauma and re-integration. The recommended content of these phases is still being developed, but the consensus is that CPTSD sufferers require a period of stabilisation and development of skills focused on regulation of affect, and interpersonal functioning prior to successful trauma reprocessing work, in order to avoid re-traumatisation. The National Institute for Health and Care Excellence (2018) recommends exposure work, trauma-focused CBT (TF-CBT) or EMDR for PTSD.

The current intervention was designed with all the above in mind, but also, considering it was a time-limited and online intervention for trauma sufferers, a priority was given to the stabilisation phase in the hope that skills learned in this area would enable safe titration of very safe processing and would in turn lead to gradual re-integration.

I delivered the intervention, being a professional therapist trained in ACT. Sessions were delivered online for a duration of 60 minutes and were delivered weekly for six weeks. As experiential avoidance (EA) is seen within the ACT model as a maintaining factor of distress, the overall aim of ACT therapy is to increase psychological flexibility for the client. It is hypothesised that, by becoming more aware and present, and by experientially making contact with their difficult thoughts and feelings, while becoming aware of intrinsic personal values and then determining to take specific steps towards those personal values, this will reduce experiential avoidance. By the same token, it is important that the therapist embodies the ACT processes by modelling being flexible, present and aware, and choosing appropriate course of action depending on what is presented by the participant in the therapy session.

In order to achieve this desired reduction in EA, metaphor and between-session behavioural tasks are used heavily in ACT. But in order for all these processes to be effective, they must be relevant to the individual and their unique experiences and circumstances. Therefore, the ACT intervention was highly individualised and not linear in its delivery or fixed in its content. Additionally, ACT processes are conceptualised to work non-sequentially; therefore, in theory they can be introduced in any order (Blackledge & Barnes-Holmes, 2009), so each participant was introduced to the triflex aspects of ACT as and when it was most appropriate in their personal therapeutic journey.

2.8.1 Intervention epistomological influences

ACT's philosophical foundation lies within relational frame theory (RFT), and both ACT and RFT fall within functional contextualism (FC) (Hayes, 1993). A fundamental functional contextualist follows a pragmatic truth criterion which intrinsically does not speak of the 'nature of reality' as such because, according to FC, pragmatic truth is only true insofar as it leads to a 'desired outcome'. Hence the ACT intervention as part of the methods used fits coherently within the pragmatic approach taken.

Overall, taking into account the mixed research methods used, I adopted a critical realist ontology and an overarching pragmatic epistemological stance within this study, believing that there is no 'perfect' or absolute way to access knowledge (Maxcy, 2003). The effect of these positions on methods used were that I decided that multiple perspectives would be advantageous to elicit deeper contextual understanding in this inquiry.

As an ACT-based integrative therapy is the clinical intervention being used here, this reflects further my overarching FC philosophical stance. The use of standardised measures indicates that there is a 'truth' that can be known and measured, but only insofar as the truth criterion for this study is that of contextualism. Therefore, 'successful working' toward one's analytic goals (Hayes, 1993) or basing the gathering of knowledge on 'what is effective

within the situation' is the aim. As I was ultimately looking at participants being released from experiential avoidance to pursue their valued living, in the expectation that this would reduce the shackling results of trauma symptoms which separate and segregate individuals from integration and prevent them reclaiming their lives, it seemed that individuals' behaviour changes and goals would be important factors in understanding the efficacy of the intervention.

Using additional qualitative exploration indicates a seeking to understand deeper the context in which this 'truth' exists. Therefore, I chose to add a qualitative dimension to this research alongside the quantitative side. I hoped that the qualitative aspect may illuminate the broader social context and impacts resulting from individual perspectives (Braun & Clarke, 2006). I also acknowledge that my area of research is a complex real-world environment where the paradigm of psychopathology and necessity of diagnosis currently governs treatment and care. It is therefore important that standardised measures are used alongside idiographic measures, Quality of Life scales and a qualitative element to ascertain whether relationships may be further understood. This fusion may help to place this research within the current environmental and social climate with a view to contributing to the counselling psychology field both theoretically and clinically (Kasket, 2012).

As this is applied research, which is exploring a clinical intervention within a complex population and pandemic setting, there is arguably a further benefit in adopting multiple methodological perspectives towards aiding depth and richness to understanding (Schulman, 1986) – further reasons why this research fits within an overarching paradigm of pragmaticism (Bishop & Yardley, 2017).

FC is rooted in contextualism but also in philosophical pragmatism (Dewey, 1896). In considering the interaction of interpretation of belief and meanings, I adopt a pragmatic philosophical overview (Morgan, 2007), believing in the pragmatic truth criterion that there is

no ‘right’ behaviour, only what works for the individual (Burr, 2003; Hayes et al., 2006). This fits with the qualitative aspect of data collection, in that it seeks to elucidate individual meanings and experience in relation to specific measurable behaviours. FC therefore seemed an appropriate philosophy with which to approach this study. Embracing both quantitative and qualitative aspects adds context and deeper meaning to singularly objective measurements (Greene et al., 1989). The validated measures give structure and factual data which can then be contextually explored. For example, if PF improved on individual ACT, this will have identified PF as malleable, and if trauma levels also improved, then this may suggest the existence of a relationship between the process of PF and trauma symptoms (and possibly other measures). The qualitative strand from the semi-structured interview would allow for the participants to add the richness and depth of their personal experience to the visual data, adding deeper understanding of the mechanisms and meanings of these changes.

2.8.2 Individual tailoring to reduce power imbalance

The functional goal is movement in the six ACT core processes, as outlined previously, and ‘techniques that move these processes can be part of an ACT intervention’ (Hayes, 2013, p. 188). This was also a core consideration by which techniques were selected and used with each participant. As the aims of the study were exploring PF within a vulnerable group with potentially complex presentations involving trauma, it was imperative that the intervention used was non-harmful, trauma-informed and, where appropriate, trauma-focused. Due to the nature of intense, intrusive thoughts and emotions which are associated with trauma, this can often increase feelings of overwhelm, and an underlying feeling of powerlessness can then accompany this. There is also a strong possibility of re-traumatisation within therapy. For this reason, the delivery of the ACT intervention being highly individualised was further appropriate.

2.8.3 Development of the intervention: theory meets practice

As previously mentioned, the National Institute for Health and Care Excellence (2018) recommends exposure work, trauma-focused CBT (TF-CBT) or EMDR for PTSD, with TF-CBT being most commonly used as treatment for CPTSD (Cloitre et al., 2010). However, it has been shown that some CPTSD cases cannot be effectively treated by TF-CBT alone. I also wanted to appropriately provide support to CPTSD participants, so in an attempt to provide a theoretical background for the clinical work I developed the following approach, which utilised a combination of trauma therapy techniques including primarily ACT but also, where necessary and appropriate, flavours of trauma-focused psychoeducation, narrative trauma therapy and a heavy somatic element encompassing techniques such as havening (Sumich et al., 2022) and somatic experience (SE) (Levine, 1997). In the context they were used, all of the techniques used could be justified as being part of the ACT triflex and fell under one of the three aspects of *being open*, *noticing* or *being active*. My synthesised approach then became a three-pronged trauma approach which was based on the following theoretical structure for all therapy. As this intervention was tailored to individual participants in a very idiographic way, while still maintaining an element of repeated measures as well as quantitative analysis, this sits very well with the PBT approach which is currently emerging.

1. Stabilisation. Specifically within this intervention, this involved emotional regulation and ability to de-escalate intrusive thoughts and emotions. SE, psychosensory techniques and mindfulness were at the forefront of this phase.
2. Trauma processing, using only a carefully titrated technique. Specifically within this intervention, this involved gradually empowering participants to feel safely able to either write down or talk about general aspects of their trauma as a start to beginning to process them.
3. Re-integration. Specifically within this intervention, this identified participants' intrinsic motivations and values for realistic change within the six weeks (based on clients' chosen goals for increased connection with others and decreased fragmentation of self).

2.8.4 Integrating bodywork techniques into ACT

Bearing in mind that stabilisation was a priority, multiple techniques in line with this three-pronged approach were used, as individually appropriate, but developing a sense of safety and skills in emotional regulation came foremost – for instance, creating a *safe place* with somatic anchoring and embodiment of this was used with all participants. I felt that this was one of the essential trauma-focused stabilisation techniques for the participants to have access to an internal stabilising resource while working remotely. Another technique was dropping anchor (Harris, 2009), which was useful to bring a client safely back to the present if they became overwhelmed emotionally or began to experience dissociation, while another was defusion, which enabled the participants to step back from their overwhelming memories and intrusive emotions enough so that they could cope without overwhelm. This was achieved via several techniques, one of which was externalisation, which enabled the clients to externalise the recurring difficult emotions, then re-frame them as a functional part of their personality. Once this was achieved, they were able to make choices about how much this externalised part of their personality controlled behaviour. As a result, participants were able to begin to recognise sooner when trauma symptoms began to be triggered. They were also then able to use self-soothing techniques to regulate emotion before they became too highly activated physiologically in their trauma memories.

As the importance of fidelity to the ACT processes is more crucial to integrity of the protocol than a manualised, linear delivery, there was no strict manual being followed in the delivery of ACT. Rather, sessions were tailored to each individual in relation to the therapy aims and goals as identified by the participants initially and throughout therapy, as governed by their personal values. Content of sessions was also determined by individual need in relation to emotional regulation according to personal levels of distress in relation to current and past stressors which came up in therapy. Integrity of adherence was monitored with a fidelity-testing procedure by an ACT professional (Nima Moghaddam) using the ACT-fidelity measure (O'Neill et al., 2019).

2.9 Data collection

Scores on trauma symptoms, anxiety and depression levels, as well as emotional regulation, rumination levels, quality of life and behaviour data regarding behavioural goals, were retrieved from Pragmatic Tracker. The CompACT was used as a process measure to identify any changes in PF levels. The main outcome variable of trauma was measured using the ITQ.

Baseline of GAD-7 and PHQ-9 was taken for at least two weeks, until a stable pattern had been established, as recommended by Lane and Gast (2014). A minimum of three data points were taken, where possible, as recommended by Smith and Gore (2012), in order to establish a secure baseline which would become each individual's 'control' for each measure.

The use of standardised clinical measures such as GAD-7, PHQ-9, RRS, ERQ and PTGI were beneficial as they enabled referencing of each individual's responses compared to the general population (Morley et al., 2018). Analysis of GAD-7 and PHQ-9 was considered in light of clinical significance according to IAPT standards (NHS, 2014) (see Table 4).

Table 4
RCI and caseness threshold for PHQ-9 and GAD-7 (NHS, 2014).

A - Measure	B -Diagnosis	C-Range	D -Reliable change index	E -Caseness threshold
PHQ-9	Depression disorders	0-27	≥ 6	≥ 10
GAD-7	Generalised anxiety disorders (and unspecified anxiety problems)	0-21	≥ 4	≥ 8

Reliable change index (RCI) (Jacobson & Truax,1991) was used to calculate reliable change pre-post intervention.

Following analysis for clinically significant change, ACT process measures (from the weekly CompACT questionnaires) were analysed further using visual analysis to evaluate trend, level and stability, and were guided by recommended systematic procedures (Lane & Gast, 2014). The definition of *trend* is progress and direction over time, level as magnitude of the data, and stability as the variability or bounce of data (Gast & Spriggs, 2014).

2.10 Data analysis

2.10.1 Quantitative analysis

Visual analysis is commonly recommended to inspect single-case experimental design data (Smith & Gore, 2012, p. 521), so this was the primary method of analysis used. I chose to utilise the reliable change index (RCI) (Jacobson et al., 1999), as it has demonstrated efficacy in calculating whether an individual's change is reliable and clinically significant (Morley et al., 2018). Many also advocate that the ecological validity of empirical findings using visual analysis can be further enhanced in naturalistic studies by employing baseline mean and trends (Bloom et al., 2006; Kazdin, 2008). Therefore, I employed visual analysis using the dual technique of Fisher et al. (2003), employing baseline mean and trend lines to inspect graph data to increase reliability (see e.g. Figure 14).

2.10.2 Effect size calculation

There is currently no agreed single best method for calculating effect size in single case design. Kazdin (1978) suggests:

> If performance during an intervention phase does not overlap with performance during the baseline phase when these data points are plotted over time, the effects usually are regarded as reliable. The replication of non-overlapping distributions during different treatment phases strongly argues for the effects of treatment. (Kazdin, 1978, p. 63)

Therefore, in this study, alongside visual analysis, I employed percentage of non-overlapping data, as recommended by Kazdin (1978) and Tawney and Gast (1984).

2.10.3 Qualitative analysis: the change interview

The change interview (Elliott et al., 2001) was 60–90 minutes long and was conducted and recorded over live Zoom sessions. These were then transcribed and analysed to be presented within a structured table. Data was analysed and synthesised alongside each individual participant's outcome measures to ascertain if any aspects of the therapy had been helpful or unhelpful and had either strengthened or weakened results and assumptions made on the basis of the quantitative data.

2.10.3.1 Framework analysis

Framework analysis was the method used to analyse the qualitative data from the change interview. From a FC perspective, self-examination and reflection is perceived as a relatively unimportant focus and as such the change interviews provided additional information in order to supplement the quantitative data rather than an independent perspective into psychological change. Framework analysis is a form of content analysis sitting under the umbrella of qualitative methodology. Ritchie and Spencer (1994) developed the approach, which is particularly germane for examining differences, similarities and relational themes in the context of semi-structured interviews (King et al., 2018). It differs from some qualitative methodologies, such as grounded theory or interpretative phenomenological analysis, as framework analysis is not naturally aligned with any specific epistemological approach (Gale et al., 2013) and is therefore most suitable for use within a pragmatic FC approach.

The framework analysis was utilised in conjunction with the quantitative data to support or refute quantitative findings. *A priori* themes had already been generated by the questions within the semi-structured interviews and were then expanded in an inductive style. A five-step process was adopted, as suggested and described by Srivastava and Thomson (2009), comprising: 1) familiarisation of the data, including listening and transcribing; 2) identifying

thematic framework from *a priori* themes; 3) indexing sections of the data that correspond to the themes; 4) Charting the indexed data; and 5) mapping and interpreting the key characteristics of the indexed information.

2.10.3.2 Credibility of analysis

In order to ensure that the qualitative research was of high quality, I referred to Yardley's (2000) quality-control recommendations, which list various criteria which were used to measure its rigour and credibility.

Table 5
How this study ensured standards of high-quality research

Yardley (2000) quality-control elements required	**Methodological response**
Sensitivity to context (e.g. theoretical, relevant literature, empirical data, sociocultural setting, participants' perspectives, ethical issues)	• Chapter 1 reviewed literature relevant to this topic in order to contextualise the current inquiry. • Initial screening gathered data from the relevant identified population (18–25-year-olds). • Intervention was sensitively planned and implemented in order to be easily individually tailored to each participant's unique experience of life and trauma. • Young people's experience of trauma and the unique development for every survivor is mentioned in every chapter. • Invisible sufferers of trauma are acknowledged in regard to the context of the pandemic. • Undiagnosed and invisible sufferers of trauma in regard to those falling below clinical threshold (discussed in Chapters 3 and 4). • Every intervention session was guided by participants' preferences and needs on that day. • Overall therapy goals were directed strongly by participants who chose their values and long-term aims from the first meeting.
Commitment and rigour In-depth engagement with topic; methodological competence/skill; thorough data collection; depth/breadth of analysis	• Strong scientist practitioner involvement through offering of a therapeutic intervention, one-hour duration over six weeks, to produce brand-new, topic-relevant data. • Ongoing objective journal as well as detailed client notes, plus supervisory discussions in clinical supervision developed deeper engagement with the topic and elicited analytic interpretations which became important themes with clinical implications (discussed in 4.20 Reflexivity statement). • Guidance was gathered from peers and researchers with experience in both qualitative methodologies and single-case design (SCD) to enhance SCD competence. My research supervisor provided feedback at all research stages to ensure rigorous standards.

	• 60–90-minute interviews were offered to provide participants with the opportunity to voice their individual experiences, which generated rich data. • Limitations of the study are detailed in Chapter 4.
Transparency and coherence Clarity and power of description/argument; transparent methods and data presentation; fit between theory and method; reflexivity	• Initial therapy contracts were discussed individually with each participant. Power issues were addressed in discussion of the agreement. Participants could suggest amendments. • Clear methodology of mixed methods described in Chapter 2. • Results presented openly in Chapter 3. Raw data available on reasonable request. • After each session, participants were asked to give feedback regarding their satisfaction with the sessions, which was gratefully received and acted upon immediately and also in the succeeding sessions in order to ameliorate power imbalance. • Between-session tasks were collaboratively set but driven strongly by participants' personal preferences and needs.
Impact and importance Theoretical (enriching understanding); socio-cultural; practical (for community, policy makers, health workers).	• Chapter 1 acknowledges current and emerging theories impacting treatment of trauma as well as changes in paradigm surrounding trauma symptoms and treatment. • Chapter 4 addresses routes for disseminating knowledge garnered in current trauma service settings for children and young people as well as their immediate community (parents, family and other counselling psychologists). • Intention to publish non-linear intervention guidance for dissemination and use in current and wider trauma organisations. • Chapter 4 discusses the original contributions of this research, alongside its counselling psychology and wider implications and potential applications of the findings, in particular trauma-informed and trauma-focused approaches by healthcare professionals. • Chapter 4 discusses potential benefits to healthcare professionals this research brings.

2.11 Design standards

SCRD was chosen as the methodology for the reason that it offers rigorous experimental evaluation of intervention effects, but importantly it also proves a useful basis for establishing causal inference (Kratochwill et al., 2010). This method was appropriate for this study, and preferable over other methods, such as a randomised control trial, as it permitted a thorough exploration of a relatively un-researched area with great breadth and open mindedness in that, even though there were hypothesised to be improvements in PF and trauma scores overall, there were other measures taken where the outcome was not predicted. It is a feasible design both in relation to the purview and breadth of this study as well as being able

to generate appropriate data to address the hypotheses and achieve the outlined aims and objectives.

2.11.1 Threats to validity

Two of the most prominent threats to validity of the research design and potential conclusions that might be drawn concern adherence to a replicable intervention and also potential for either researcher bias (due to the researcher – me – also being the therapist) or that there may be a therapist effect which could be influencing outcomes without being measured. Of course, any individual delivering therapy will be exerting an effect over a participant, regardless of whether they are the researcher or not. Nevertheless, it was important to me that I minimised any personal effect I might have on outcomes by following scripts for introduction to the intervention, delivery of certain techniques such as dropping anchor, safe-place exercises and SE exercises. A strong fidelity-testing procedure was also introduced to mitigate any possible divergence from the ACT modality.

2.11.3 Fidelity testing

Treatment fidelity in outcome research refers to verification that the independent variable was manipulated as planned. Confirmation of fidelity is essential in ensuring that powerful and valid comparisons of replicable treatments can be carried out (Moncher & Prinz, 1991). As Gearing et al. (2011, p. 82) observe, 'Monitoring the delivery of intervention is often considered the heart of fidelity, as it involves measurement of fidelity during the course of the intervention.' Therefore, the ACT fidelity measure (ACT-FM) (O'Neill et al., 2019) was used to ensure uniformity of delivery and adherence to ACT principles and processes. All recordings were shared with the fidelity tester, who then applied a strict method of randomly sampling sessions of each participant's therapy, throughout all stages of therapy. The ACT-FM measure awards points for ACT-consistent behaviours and deducts points for ACT-inconsistent behaviours of the clinician delivering the therapy. The one-to-one sessions were recorded and a stratified sample fidelity was checked to determine adherence by the

clinician to an ACT approach. (See Chapter 3 and Appendix 5 for a detailed outline of the fidelity results.)

2.12 Ethical considerations

Ethical approval was granted by City University initially in December 2019 and then, due to restrictions imposed because of the COVID-19 pandemic, a substantial restructuring and rewriting of the study was required. This led to re-application for ethical approval in June 2020. Approval was finally granted in November 2020 (see Appendix 6). British Psychological Society (BPS) (2017, 2021) ethical codes were adhered to throughout the research process, as was the ethical framework for the counselling professions from the British Association for Counselling and Psychotherapy (BACP, 2018). Ethical codes and matters were considered throughout and are outlined below.

As there were two main areas of ethical consideration surrounding practitioner research (McLeod, 2014), namely the wellbeing of the participants but also the basic ethical coherence of the study, I considered both. Particularly as my research involved delivering therapy, there were additional ethical considerations to take into account. To ensure that I was upholding participants' rights to well-being and non-maleficence, the BACP Code of Practice was followed at all stages.

I was aware that there was a dual role present in that I was therapist as well as the researcher. McLeod (2014) warns to guard against dual roles where diluting of the therapeutic role can occur or a lack of therapeutic focus can result. To guard against this, I kept a personal reflective diary about the therapeutic process and relationship with each participant, and I also engaged in regular professional supervision so that any lack of focus could be addressed early on. McLeod also warns against confusion regarding the therapeutic agreement where research overlaps therapy. I ensured that the information sheet gave thorough explanations of roles and boundaries, and when conducting telephone

screening I emphasised these aspects before screening even began. It was also clearly stated that participants could withdraw from the research at any time and that this would not affect their therapy.

Another consideration was whether, as the therapist, I could deliver therapy with fidelity to ACT and uniformity without attempting to influence outcomes of the research. This was a tension which I thought about deeply and came to the conclusion that, as a therapist, I am attempting to go beyond non-maleficence and entering into the area of attempting to improve the participant/client's well-being. As long as transparency is held here, this tension is acceptable, especially where research is taking place in order to further the development and improvement of therapeutic services both for the participants involved and for young people in general. No payment was taken for any therapy service in the course of the study, thus removing some of the imbalanced power dynamic from the relationship.

Finally, the consideration of whether participants would feel able to be honest with me at the follow-up phase, due to my dual role of therapist and researcher, was also at the back of my mind. I prepared for this by retaining a relational transparency throughout the therapy.

Individual therapy agreements were exchanged with each participant where confidentiality and events denoting a need for breach of confidentiality were clearly stated (see Appendix 3). The information sheet clearly outlined strict boundaries between the therapy and research interview and stated that sessions could not be extended in any case, but that where appropriate signposting would guide participants to other useful services should they still need further support at the end of the intervention.

2.13 Risk management

Due to the fact that the participants were likely to be experiencing anxiety, depression and trauma symptoms, levels of risk were an important factor. I carefully considered and discussed this with my supervisor and agreed that I would screen participants for level of

risk. It was agreed that no participants displaying moderate-to-severe levels of risk would be eligible for the research. This was screened for using the CORE-10 online measure, which has an individual risk element embedded as one of the questions asks if the client has felt hopeless or despair and another asks if they have made any plans to end their life. This risk element is recorded separately in its own timeline so it can be observed independently. Each participant was also assessed during the first session via clinical interview, which added another strand of reliability to the risk assessment undertaken through screening . It was stated clearly in the advert (see Appendix 7) for the research that participants would need to be seen as eligible for the research as a result of this screening, but the eligibility criteria were not advertised so that the screening could be done blind. This avoided participants deliberately skewing the screening results if they were experiencing levels of risk that were too high for the study.

Due to the often complex nature of trauma symptoms and the concern about possibility of re-traumatising, I felt that it was imperative that this intervention was not only trauma-informed but also trauma-focused. Therefore, the planned content for the therapy sessions, as well as remaining true to the ACT core processes, was heavily weighted towards stabilisation, emotional regulation, and safe and titrated processing of emotion. Protocols for loss of internet connection during sessions were also clearly explained in the therapy agreement to prevent further distress should this occur unexpectedly.

2.14 Dual-role standards

As I took the role of both researcher and therapist, I was conscious of potential dual-role complications as well as a possibility of the power imbalance, which is unavoidable where a therapist is also the researcher. Therefore I carefully followed the five criteria as laid out by Bond (2004) to ensure good practice as a researcher/practitioner (Table 6).

Table 6
Five criteria essential for good practice (Bond, 2004, p. 9).

	Criterion
1	Care is taken to ensure that the undertaking of any research by the practitioner is both beneficial to the client and consistent with the integrity of the research.
2	Thorough consultation, with both a research consultant or ethics committee and the practitioner's counsellor or psychotherapy supervisor, is undertaken before the research commences and continues throughout the duration of the research.
3	The challenge of obtaining free and informed consent in these circumstances is adequately considered and the procedures for obtaining consent outlined in section 3.1 (Consent, pages 6-7) followed.
4	The impact of the dual relationship is carefully monitored and, when appropriate, addressed in any reports of the research process and outcomes.
5	The use of any records is restricted to the purpose(s) for which they were created and authorized by the client's consent.

I was aware from the outset that role duality could create some bias both within the therapy and during the follow-up interview. However, I felt that there were also benefits of this dual role, as being present for all the therapy sessions meant I would already have an in-depth knowledge of the participants' values and goals before going into the interview. To alleviate this bias as much as possible, however, I stressed the importance of honesty and candour in the interview and explained that everything we can learn about ACT will be beneficial, even in cases where ACT may have caused difficulties or have been unhelpful. The fact that I, as therapist, also took the role of interviewer may have actually led to a stronger rapport which could help the participants to be more open, leading to richer qualitative data collection and possibly more insight into their personal experiences. As Stiles (2007, p. 126) observes, 'Practitioners of counselling and psychotherapy routinely witness people's pain, struggle, courage and joy in a depth and detail rarely possible in psychological laboratories.' For this reason, I felt the benefits of my dual role outweighed any potential negative aspects.

I attempted to maintain an ethically minded approach throughout the study, as recommended by Bond (2004, p. 9), and further adopted a 'role-fluency' approach (Figure 5), as recommended by Gabriel and Casemore (2009), whereby the therapist maintains a primarily therapeutic role in the mid-stage of the project (i.e. during the data-gathering intervention delivery stage), with care that the researcher role is bracketed off in part for the planning and early stages and is the primary role in the analysis stage. This worked well as,

although the cases were staggered in delivery times, full analysis was undertaken only after the final interview was complete and all contact had ended with the participant.

Figure 5. The role fluency process in clinical research (Fleet et al., 2016)

2.15 Reflexivity and axiology

It is important to acknowledge my role and influence as the researcher in that my values and biases have undoubtedly already interacted and influenced the research questions asked, the type of data that was collected, the method of interpretation and the overall research process. I am aware that, having personally worked therapeutically with young people affected by trauma, and having witnessed ACT's efficacy when offered to individuals experiencing severe psychological distress, these experiences have instilled within me a desire to explore effective care options for young trauma sufferers. I feel that this group is under-provided for, particularly in the wake of COVID-19, when existing trauma is likely to have been compounded by the trauma of the pandemic.

2.15.1 Impact of personal experience on emerging research question

Having worked with children and young people within the public sector and Tier 4 inpatient settings for adolescent acute admissions, I became increasingly aware of the increased incidence of traumatic experiences associated with poor mental health outcomes. Very frequently there seemed to be a correlation between the number of adverse childhood experiences (ACEs) (Reavis et al., 2013) experienced and severity of anxiety, depression, CPTSD and even psychosis.

While working as a therapist alongside young inpatients and noticing that they were indeed experiencing many comorbid symptoms alongside their CPTSD presentation, I also noticed that, just as there were precipitating factors (ACEs) leading to these poor mental health outcomes, there appeared to be some protective factors at play whereby some young people were able to adapt, heal and recover with less difficulty than others. It was clear that I was restricted in what I could do as a practitioner to prevent or alleviate the pain of trauma they had already experienced, but I did witness that, where individuals were able to access a more psychologically flexible state, they were able to improve coping, adapt better and move on with their lives positively. In some cases they even demonstrated an ability to learn from their difficulties, own them and transform them into strengths for the future. This ability of some individuals to be flexible and flourish despite their past trauma led me to feel that my role as practitioner and responsibility towards helping young people lay in developing this PF. With little existing research into PF development in this age group, I determined to investigate if trauma symptoms could be alleviated or other benefits could be gained from young people developing PF despite their difficult experiences.

As a practitioner, I have worked voluntarily within schools where young people were repeatedly isolated during lockdown, combined with experiencing the fear and dread of imminent threat from illness or death of their loved ones. I feel strongly that it is imperative that young people are provided with accessible options for therapeutic intervention in order

to lessen, where possible, the impact of such trauma on their future lives, particularly in the wake of the pandemic. If the post-pandemic youth are not given support, and as soon as possible, they will have a very unfair and unequal start in life. I feel it is our duty as psychologists to stand up for this unfairly impacted group.

To guard against my being so close to the research that this might compromise my ability to critically and objectively engage with the data, I kept a research diary. This stimulated and encouraged reflexivity within the work as research progressed. I also engaged in external supervision as well as personal therapy, and kept a reflexive journal throughout in order to segregate and address these tensions. I remained aware, however, that my personal perspective would nevertheless influence every stage of the research, and so engaged with reflexivity at every stage by consulting closely with both my academic supervisor and also my clinical supervisor of the ACT work.

As ACT is a fundamentally idiographic treatment tailored to the clients' intrinsic values, it is an ideal intervention to use alongside the chosen measures, but it also fits well with my own philosophy that a pragmatic approach is strongly bonded to social-justice goals (Morgan, 2014). New paradigms allow new sets of belief, and it is my hope that the findings of this research will contribute towards a dialogue about the benefits of treating trauma as 'psychological distress' and providing effective transdiagnostic, process-oriented, short-term, trauma-focused support to post-pandemic youth as a priority.

Chapter 3: Results

3.1 Main outcomes

There was a large amount of data collected for this study. The summary of results follows here and are then described in more detail first by measure then by participant. Given the nature of the single case design, results per measure cannot be generalised, yet there was still usefulness in considering change across every individual process for each participant, in line with the aims of the study. Lastly, some between-measure comparisons are explored in line with the aims of the study to examine any relationship between PF, trauma and QOL. Table 7 shows demographics of the population sampled.

3.2 Demographics

Table 7
A summary of demographics of the 4 participants who completed the intervention.

Participant	Previous diagnosis	Previous therapy	Length of time in therapy	Gender	Age	Trauma occurred	Trauma still present
P1	None	CBT	12 weeks	Female	19	Throughout childhood	Still present
P2	None	CBT	10 weeks	Female	20	Throughout childhood	Still present
P3	Depression	TF-CBT	16 weeks	Female	22	Throughout childhood	Still present
P4	None	None	None	Female	23	5 years ago – single event	No

3.3 Change results

The following tables summarise change for participants across outcome measures. Table 8 illustrates change at post-intervention and Table 9 illustrates change maintained at follow-up. Table 10 illustrates further change from post-intervention to follow-up.

Table 8
A summary of positive change across quantitative measures for all participants from baseline to post-intervention.

Participant	GAD-7	PHQ-9	CompACT	PTSD	C-PTSD	PTGI	RSS	QOLS	ERQ
P1	✓	✓	✓	✓	✓	✓	✓	✓	✓
P2		✓					✓		✓
P3		✓	✓	✓	✓	✓		✓	✓
P4	✓	✓	✓	✓	✓	✓	✓	✓	✓

As illustrated in Table 8, from baseline to post intervention, two participants (P1 and P4) experienced positive change in all nine measures, one (P3) experienced positive change in all but two measures, and one (P2) experienced positive change in three of the measures. (Significance of level of change in each measure is discussed in more detail in the results by measure section).

Table 9
A summary of positive change across quantitative measures for all participants from baseline to follow-up.

Participant	GAD-7	PHQ-9	CompACT	PTSD	C-PTSD	PTGI	RSS	QOLS	ERQ
P1	✓	✓	✓	✓	✓	✓	✓	✓	✓
P2		✓		✓			✓		✓
P3	✓	✓	✓	✓	✓	✓		✓	✓
P4	✓	✓	✓	✓	✓	✓	✓	✓	✓

As Table 9 shows, two participants (P1 and P4) showed positive significant change in all measures from baseline to follow-up while another (P3) showed improvement in all but one measure.

Table 10
A summary of maintenance of improvement or further positive change from intervention to follow-up. * represents further positive change.

Participant	GAD-7	PHQ-9	CompACT	PTSD	C-PTSD	PTGI	RSS	QOLS	ERQ
P1	✓*	✓*	✓*	✓*	✓*	✓*	✓*	✓*	
P2	✓	✓*	✓		✓*		✓	✓	✓
P3		✓		✓*	✓	✓*		✓*	✓
P4	✓	✓*	✓*	✓		✓*		✓*	

As Table 10 shows, there was continued improvement from post-intervention to follow-up in many of the nine measures. One participant improved in all but one measure, two participants continued to improve in all but two measures, and one participant continued to improve in all but three measures. Of note is the fact that one participant had improved in only three of the nine measures at post-intervention but by the time of follow-up had gone on to improve in seven of the nine measures, with further improvements in two of these.

3.4 Main outcome of reliable change index

Table 11
Reliable change index (RCI) for all participants across all measures, pre-intervention to FU score.

Participant	GAD-7	PHQ-9	CompACT	PTSD	CPTSD	PTGI
P1	Significant decrease *	Significant decrease *	Significant increase *	Significant decrease *	Significant decrease *	Significant increase *
P2	Significant decrease*	Significant decrease*	Significant increase *	Significant decrease *	Significant increase -	Significant decrease
P3	No change	Significant decrease*	Significant increase *	Significant decrease *	Significant decrease *	Significant increase *
P4	Significant decrease*	Significant decrease*	Significant increase *	Significant decrease *	Significant decrease *	Significant increase *

Participant	ERQ	RSS	QOLS
P1	No change	Significant decrease	Significant increase*
P2			

Participant	ERQ	RSS	QOLS
	Significant increase	No change	No change
P3	Significant decrease	Significant decrease	Significant increase*
P4	Significant decrease	Significant decrease	Significant increase*

Notes. Table based on Jacobson and Truax (1991). RCI calculated using Cronbach's Alpha for scales/subscales with mean and SD for T1 total scores. Using RCI to calculate change from T1 to FU. [*] Indicates a positive significant clinical outcome. [-] indicates a negative clinically significant outcome.

3.5 Visual analysis

The remote ACT-based intervention was the only experimental variable introduced and was the primary process variable being measured. Visual analysis was utilised in order to assess validity and reliability of the data and therefore the strength of any conclusions drawn. Results were highly individual for each participant with a lot of variability within the visual analysis. Therefore, caution is necessary when visually interpreting the data.

Table 12
Percentages of non-overlapping data for each participant between baseline and intervention phase within the CompACT scores.

Participant	Percentage % of non-overlapping data for PF
P1	100
P2	28
P3	42
P4	100

Calculations of percentages of non-overlapping data, which is data in the intervention phase that is equal to or higher than the highest value in the baseline phase, illustrates that there was variance across participants ranging from 28% to 100%.

Table 13
Percentage of non-overlapping data within each condition

Participant	QOL	RRS	ERQ	GAD 7	PHQ 9
P1	100	100	71.42	85.71	100
P2	57.14	14.28	100	28.57	42.85
P3	42.85	85.71	0	42.85	42.85
P4	100	28.57	28.57	87.71	100

Table 13 describes percentages of non-overlapping data between baseline and intervention phase for the measures shown. Calculations of percentages of non-overlapping data, which is data in the intervention phase that is equal to or higher than the highest value in the baseline phase, illustrates that for the above measures there was variance across participants ranging from 0% to 100%.

Baseline stability was aimed for in all measures apart from ITQ and PTGI for reasons mentioned on p 92. However, some posit that baseline stability does not necessarily reduce type 1 errors (Lanovaz & Primiani, 2023) and that therefore it is not necessary to wait for baseline data to be stable. Also, importantly, as Tables 5, 12 and 13 show, the percentage of non-overlapping data with all measures also adds weight to the fact that the level of variance displayed is likely to be due to the intervention, despite a lack of stable baseline. However, it is also important to note that many of the measures were standardised clinical measures with widely accepted ranges of reliable and stable recovery (see Table 4). This meant that each participant could be measured against their own clinical score even as a standalone, one-off measurement from a clinical standpoint. The trendlines produced at baseline stages also are good visual indicators of the direction of projected change or stability to be compared to the trendlines produced by the data points during the therapy phase.

3.5.1 CompACT scores

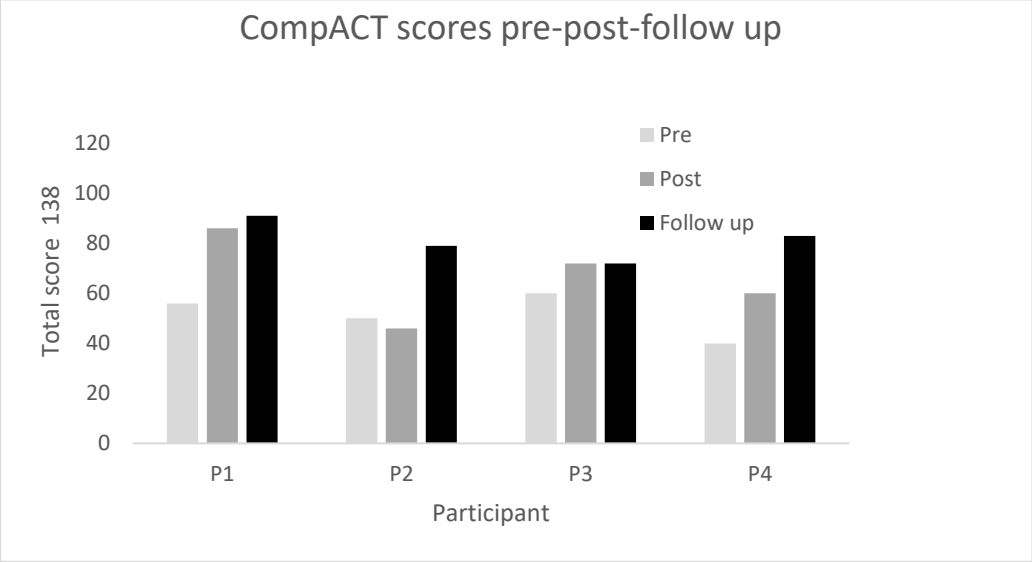

Figure 6. Bar graph showing comparison of each participant's PF scores over time. Improvements were demonstrated in every participant from baseline to follow-up.

3.5.2 PTSD scores

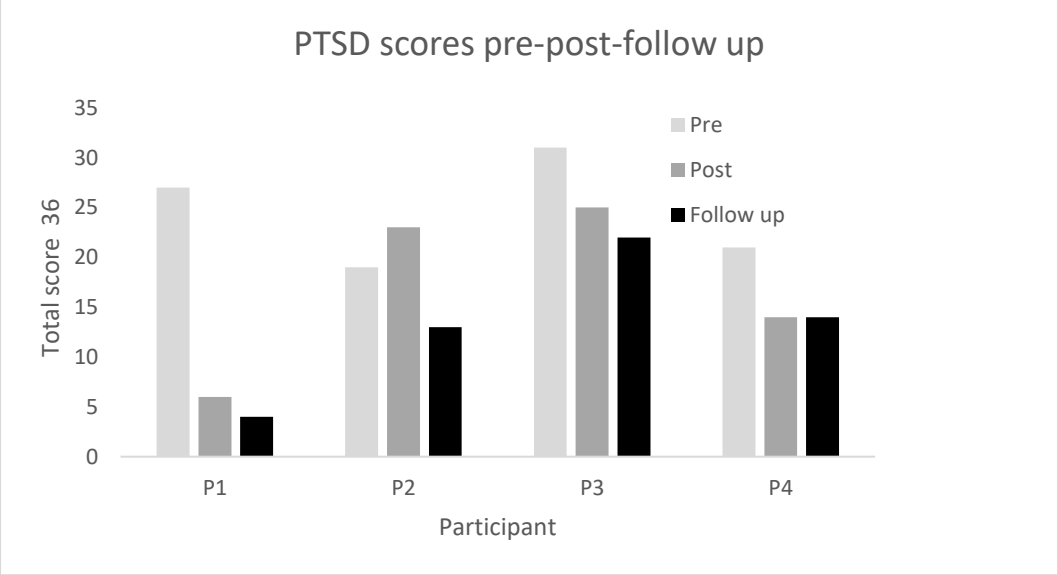

Figure 7. Bar graph showing a comparison of each participant's scores for PTSD over time. Improvements were demonstrated in every participant from baseline to follow-up.

Of the four participants, only one (P4) was identified through screening as experiencing clinical PTSD. The other three were borderline by a minimal margin as being classified as clinically suffering from PTSD. P1 was one point away from being classified as having PTSD yet scored almost maximum for CPTSD symptoms (yet this would not have classified them

as clinically suffering from CPTSD, as a PTSD diagnosis is required first before a CPTSD classification can be made). P2 was also marginally under the clinical cut-off point for both PTSD and CPTSD, and P3 scored as a definite clinical case of CPTSD (having scored the required PTSD score initially).

As can be seen from Figure 7, P1 made the most significant decrease in PTSD symptoms. Of note is that all four participants made significant positive reduction in PTSD levels from baseline to follow up, although P2 experienced a worsening of PTSD symptoms between baseline and post-intervention before improving at follow-up. So, although we cannot generalise from a multiple-case-design study, it can be said that all four of the participants did experience a decrease in trauma symptoms after the ACT intervention.

3.5.3 CPTSD scores

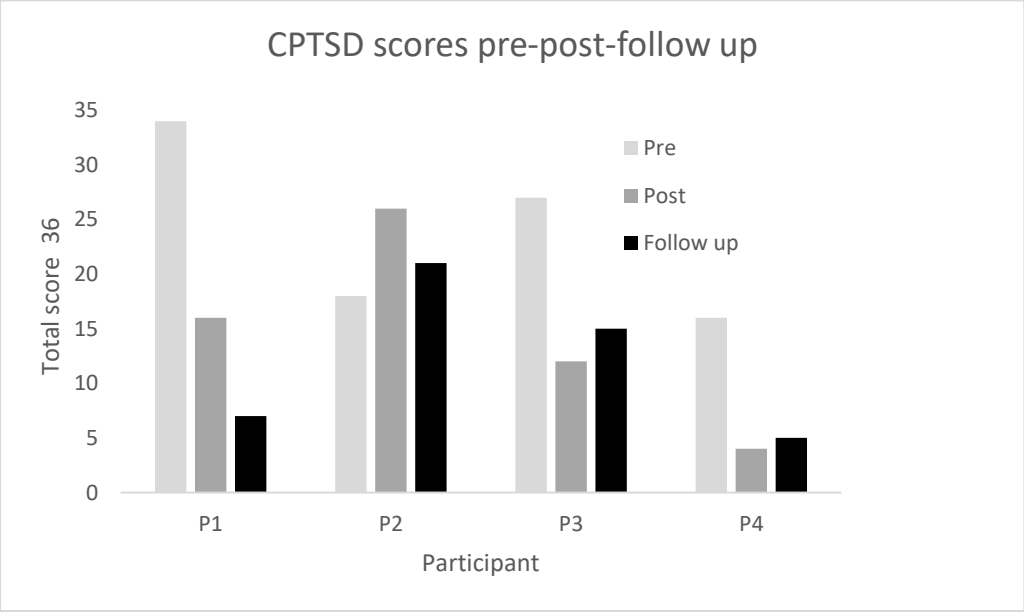

Figure 8. Bar graph showing comparison of each participant's CPTSD scores over time. Improvements were demonstrated in every participant from baseline to follow-up apart from Participant 2.

As stated previously, CPTSD scores relate to the subscales of affective dysregulation, negative self-concept and disturbance in relationships. At baseline, although two of the participants were borderline PTSD clinical cases, and so would not have been diagnosed as

PTSD or CPTSD, they nevertheless had very high CPTSD scores. On examination, it appeared that there was one PTSD subscale they had missed out on by one point: ‘re-experiencing in the here and now’.

P1 was one point too low to qualify as clinical PTSD, yet their CPTSD score was almost the maximum possible score. P2 also was marginally under diagnosis level, yet their CPTSD symptoms were also moderately severe at baseline.

Three participants showed significant decrease in CPTSD symptoms from baseline to follow-up. P2’s score increased from baseline to post-treatment, and P3’s increased from post-treatment to follow-up, although overall showed an improvement by follow-up.

3.5.4 Psychological flexibility change over time alongside trauma symptom score

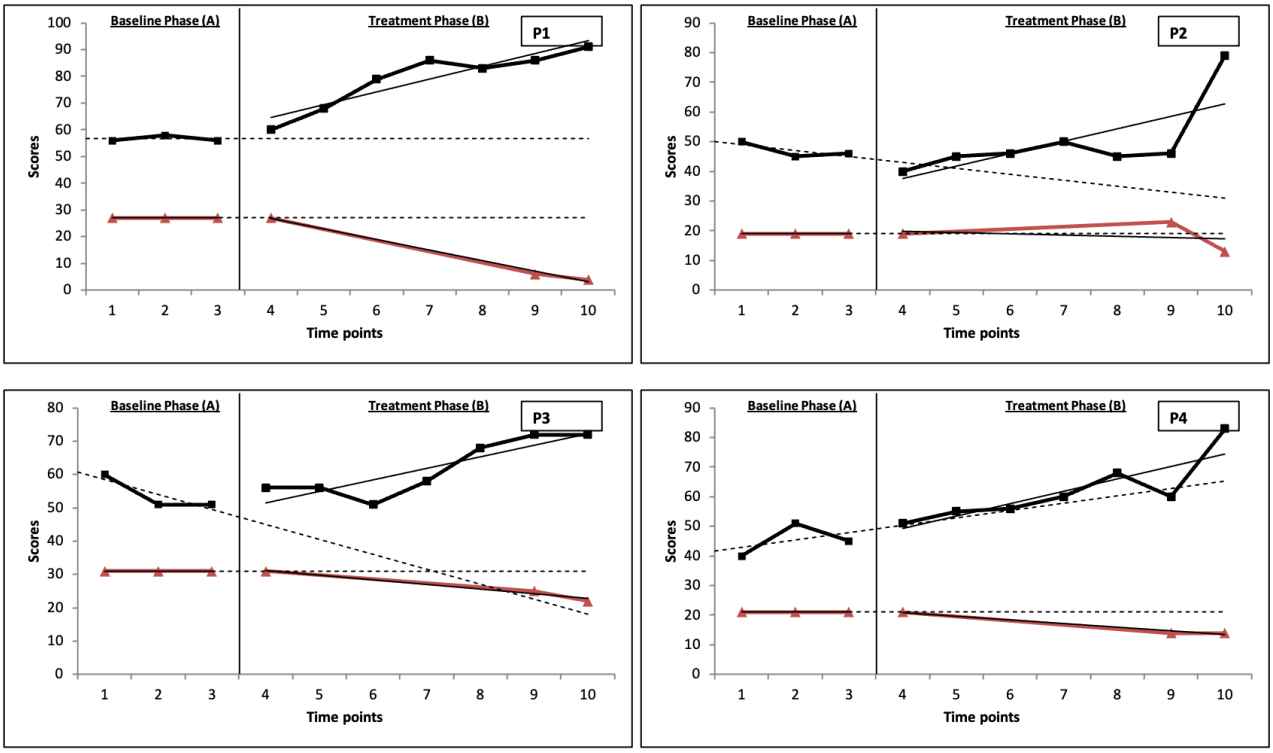

Figure 8.1. Graphs depicting psychological flexibility (PF) scores alongside trauma symptom results for Participants 1–4.
Note: Red lines depict scores for trauma symptoms. Black lines depict PF scores.

3.5.5 QOL scores

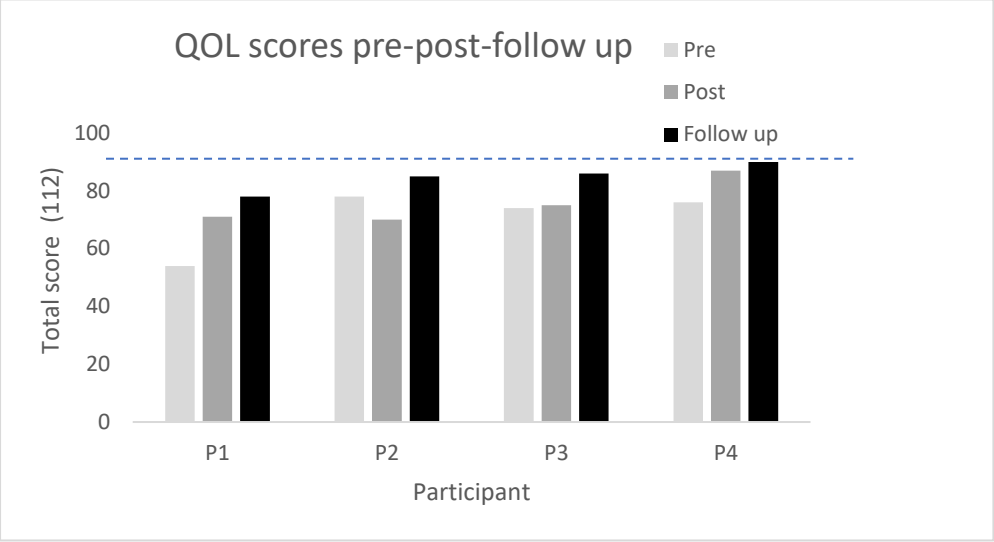

Figure 9. Bar graph showing QOL scores over time, and in relation to national average.
Note: Blue dotted line indicates average score in general population.

All participants' QOL scores were significantly below average at baseline. P1 showed a QOL score of only approximately 50% of the national average (Burckhardt & Anderson, 2003). As shown in Figure 9, the general trend from baseline to follow-up after intervention shows a positive increase in quality of life, and all participants' scores were moving closer to the expected clinical cut-off average for this sample.

3.5.6 Ruminative Response Scale scores

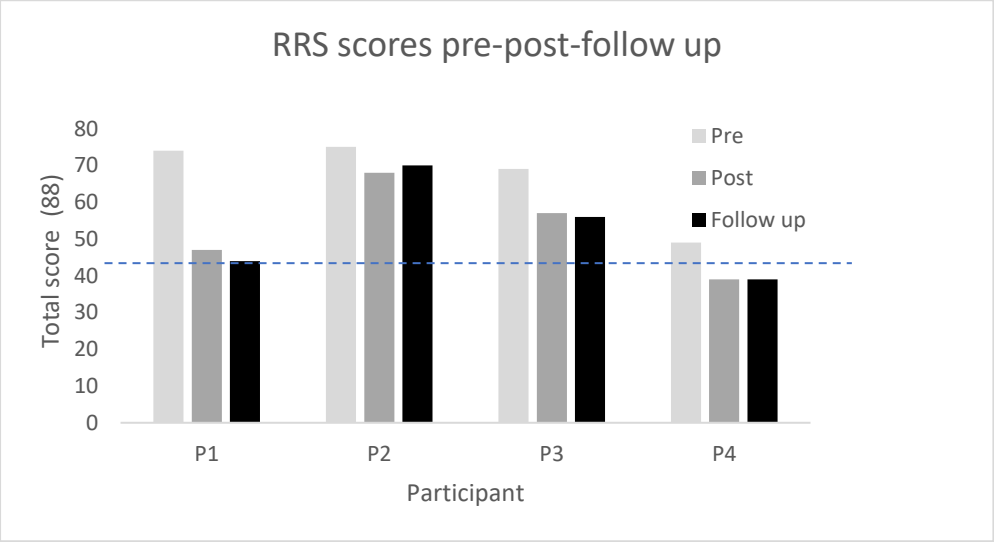

Figure 10. Bar graph showing RRS scores over time, and in relation to national average.
Note: Blue dotted line indicates average score for female in general population.

All participants' baseline levels were above the population norm for this measure at baseline. Clinical cut-off of 42, as shown by the blue line, indicates this. The general direction of change is towards the population norm, with P1 showing the largest decrease in ruminative responses. P2 experienced the smallest decrease of 2 points which was analysed as being non-significant according to the RCI, but all participants' scores indicate an improvement in ruminative response post-intervention.

3.5.7 PTGI scores

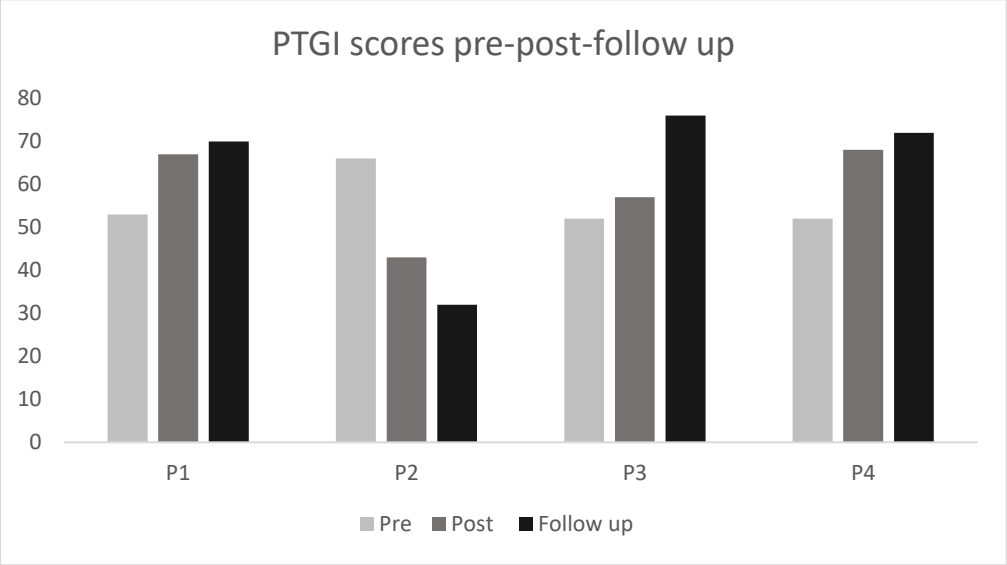

Figure 11. Bar graph showing PTG scores over time.

As shown in Figure 11, P1, P3 and P4 all show a positive increase in post-traumatic growth. P2 shows a clear deterioration in this, however, from baseline to post-treatment, and then with further decline until follow-up.

3.5.8 GAD-7 scores

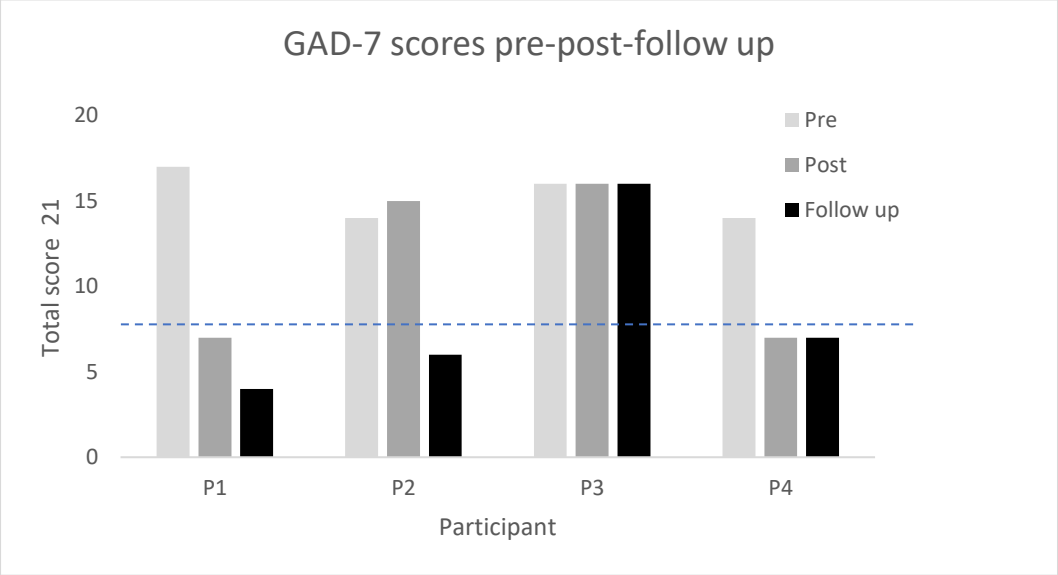

Figure 12. Bar graph showing GAD-7 scores over time, and in relation to national average.
Note: Blue line shows clinical cut-off score.

A score of 10 or greater on the GAD-7 represents the accepted cut point for identifying cases of GAD. Cut points of 5, 10 and 15 are interpreted as representing mild, moderate and severe levels of anxiety (Spitzer et al., 2006) All participants began the study with a baseline level of severe anxiety. Three participants showed a very significant and reliable reduction in anxiety levels (see Figure 12), although P3 remained at baseline score throughout the study, up until follow-up.

3.5.9 PHQ-9 scores

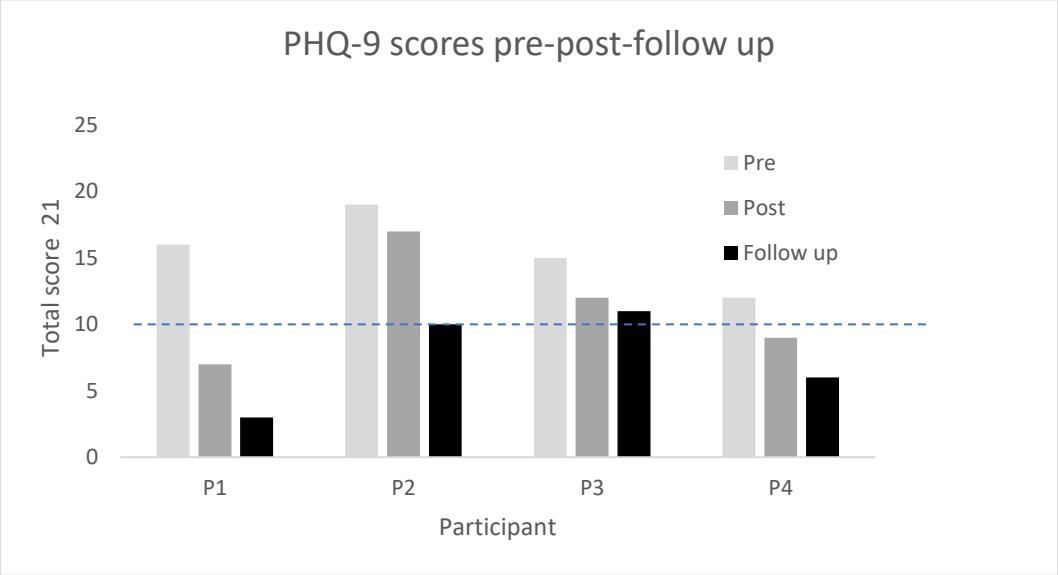

Figure 13. Bar graph showing PHQ-9 scores over time, and in relation to national average.
Note: Blue dotted line shows clinical cut-off score.

Depression severity is interpreted as: 0–4 none, 5–9 mild, 10–14 moderate, 15–19 moderately severe, and 20–27 severe (Kroenke et al., 2001).

At baseline, three participants were reporting depression-severity scores of moderately severe (P1, P2 and P3) while P4 scored as moderately depressed. All participants' mood levels had improved significantly and clinically from baseline to post-intervention, and all participants experienced further improved mood levels post-treatment to follow-up. By the point of completion of the study, two of the participants (P1 and P2) had reduced their clinical depression levels from severely depressed to non-clinical levels of depression, and P4 had also reduced their levels to significantly below clinical cut-off scores. P3 remained experiencing moderate levels of depression.

3.6 Results by measure

3.6.1 Overall psychological flexibility

The following graphs show overall psychological flexibility per participant over time.

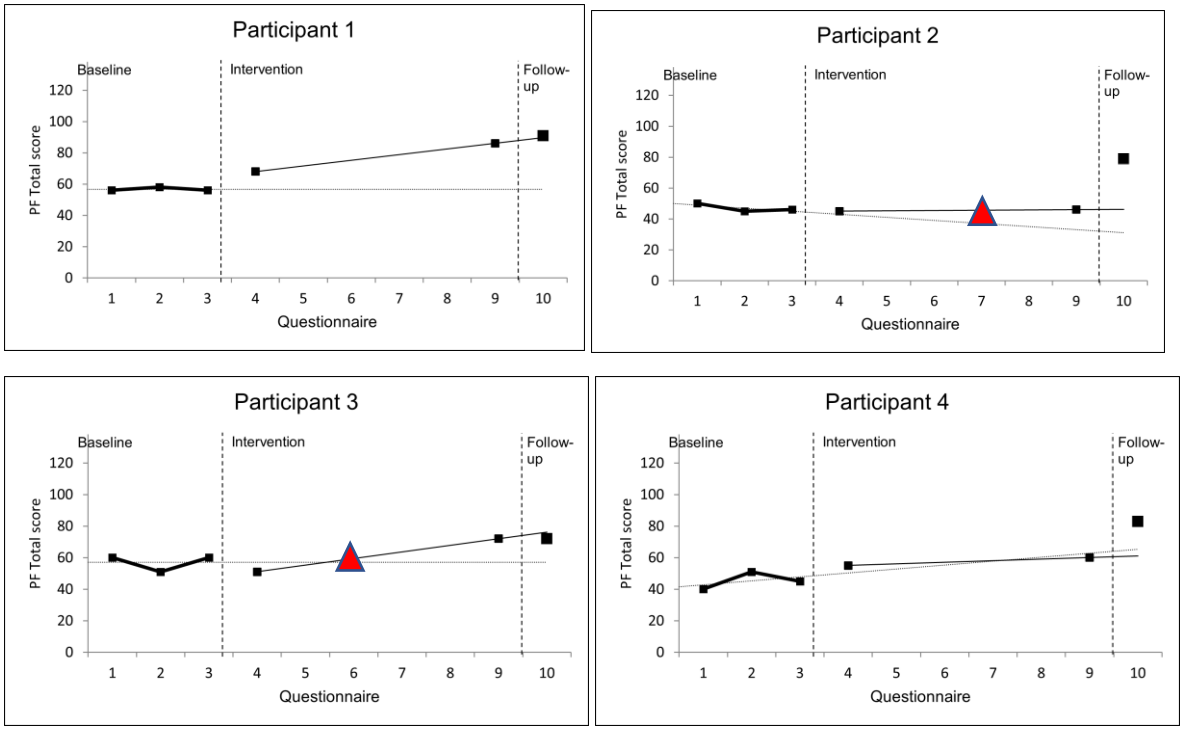

Figure 14. Graphs depicting overall psychological flexibility for Participants 1–4.
Note: The blue dotted line depicts the average score for PF in a healthy population.
▲ = a significant traumatic event took place at that point during the intervention (for further details see extended results under framework analysis).

As Figure 14 shows, all participants' overall psychological flexibility had improved by follow-up. P2 shows a slight decline from baseline to post-treatment, but by follow-up this has significantly increased. Trend-line analysis shows that all participants demonstrated an improvement above what was expected from baseline trends. (As can be seen in each graph, the baseline trend is extended by the dotted line, and this baseline trend indicates the probable trajectory if the current pattern continues with no intervention.) In each case, the follow-up score for PF is above where the baseline trend had predicted. PND (see table 13) shows that effect size for change is as follows: P1 (100), P2 (28), P3 (42) and P4 (100). Indicating that the level of change for P1 and P4 is a large significant effect, for P3 moderate significant effect and for P2 a small significant effect.

3.6.2 GAD-7

Table 14
RCI and caseness threshold for PHQ-9 and GAD-7 (NHS, 2014).

A - Measure	B -Diagnosis	C-Range	D -Reliable change index	E -Caseness threshold
PHQ-9	Depression disorders	0-27	≥ 6	≥ 10
GAD-7	Generalised anxiety disorders (and unspecified anxiety problems)	0-21	≥ 4	≥ 8

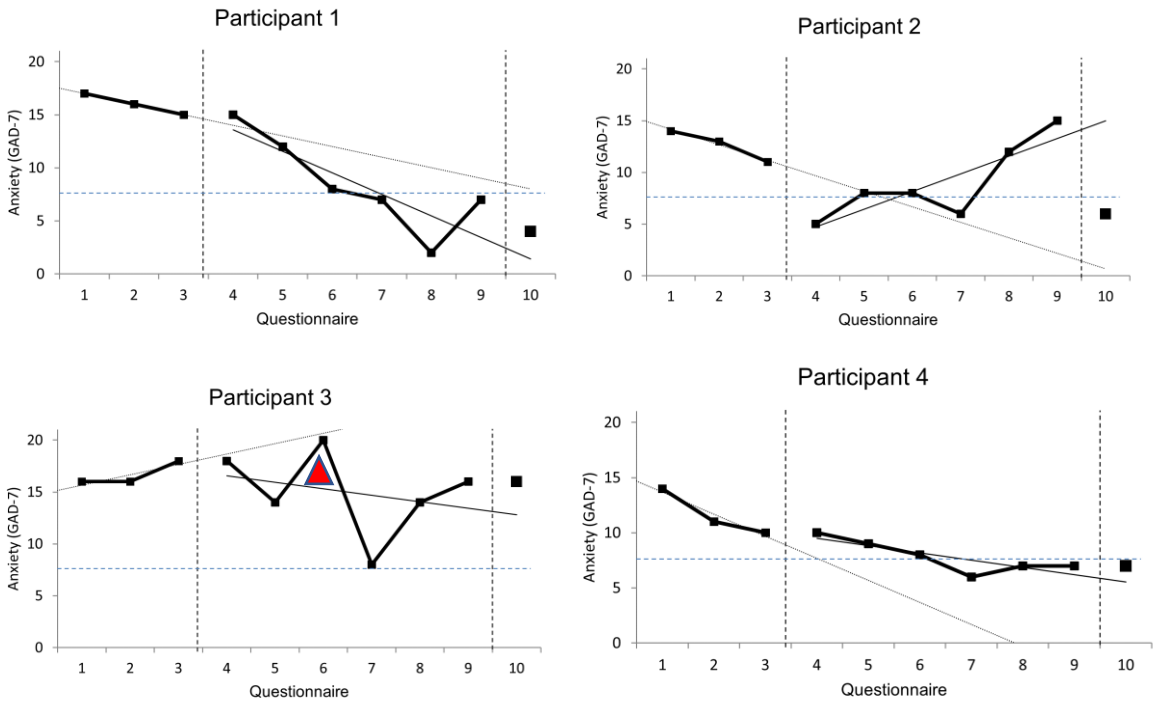

Figure 15. Graphs depicting GAD-7 results for Participants 1–4.
Note: The blue dotted line depicts the average score for GAD-7 in a healthy population.
▲ = *a significant* traumatic event took place at that point during the intervention.

All participants established a stable baseline before intervention. Trend line for baseline measures were matched with intervention trend line in direction for P1 and P4, with both showing a trend of significant positive reduction in clinical symptoms. Two participants (P1 and P3) demonstrated an improvement beyond what the baseline trend line indicated. The remaining 2 participants (P2 and P4) demonstrated a reduced improvement compared to what baseline trends suggested, although both still resulted in sub-clinical outcomes by follow-up. NHS guidelines on reliable change (NHS, 2014) report change of equal or greater than 6 points to show reliable significant change (see Table 14). RCI analysis results reinforces this as a reliable improvement also for P1, P2 and P4 from baseline to follow-up. PND shows that levels of change were significant: P1 (85.71), P2 (28.57), P3 (42.85) and P4 (87.51). P1 and P4 showed large significant change, P3 a moderate significant change and P2 a small significant change.

3.6.3 PHQ 9

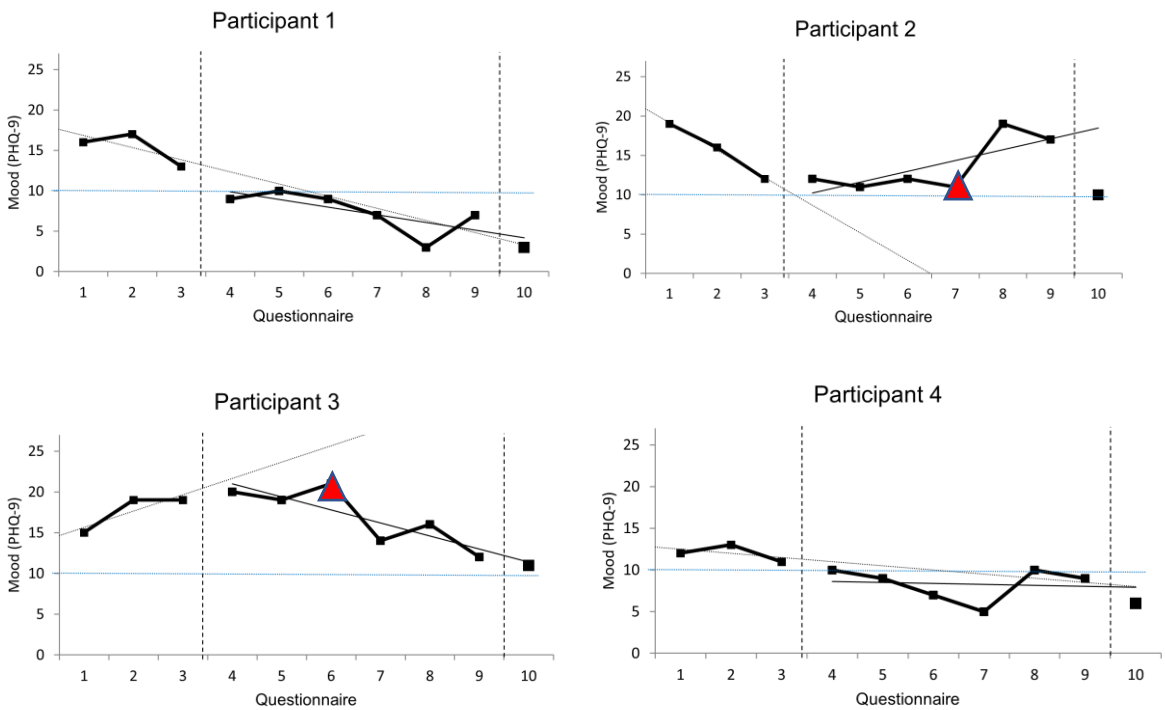

Figure 16. Graphs depicting PHQ-9 results for Participants 1–4.
Note: The blue dotted line depicts the average score for PHQ-9 in a healthy population.
▲ = a significant traumatic event took place at that point during the intervention.

Two participants (P1 and P4) demonstrated arrival at a follow-up score that was on track and in line with baseline predictions. The direction of change of one participant (P2) had altered from baseline to intervention in a negative clinical direction, although by follow-up this had reduced in a large jump to be just below clinical levels. The trend line of one participant (P3) suggested an upward trend at baseline, which altered drastically towards the opposite directionality of decline in score throughout intervention, landing at a point just above the clinical cut-off point for depression by follow-up. PND shows that levels of change were significant: P1 (100), P2 (42.85), P3 (42.85) and P4 (100). P1 and P4 again showing 100% effect size for significant change.

3.6.4 Quality of Life

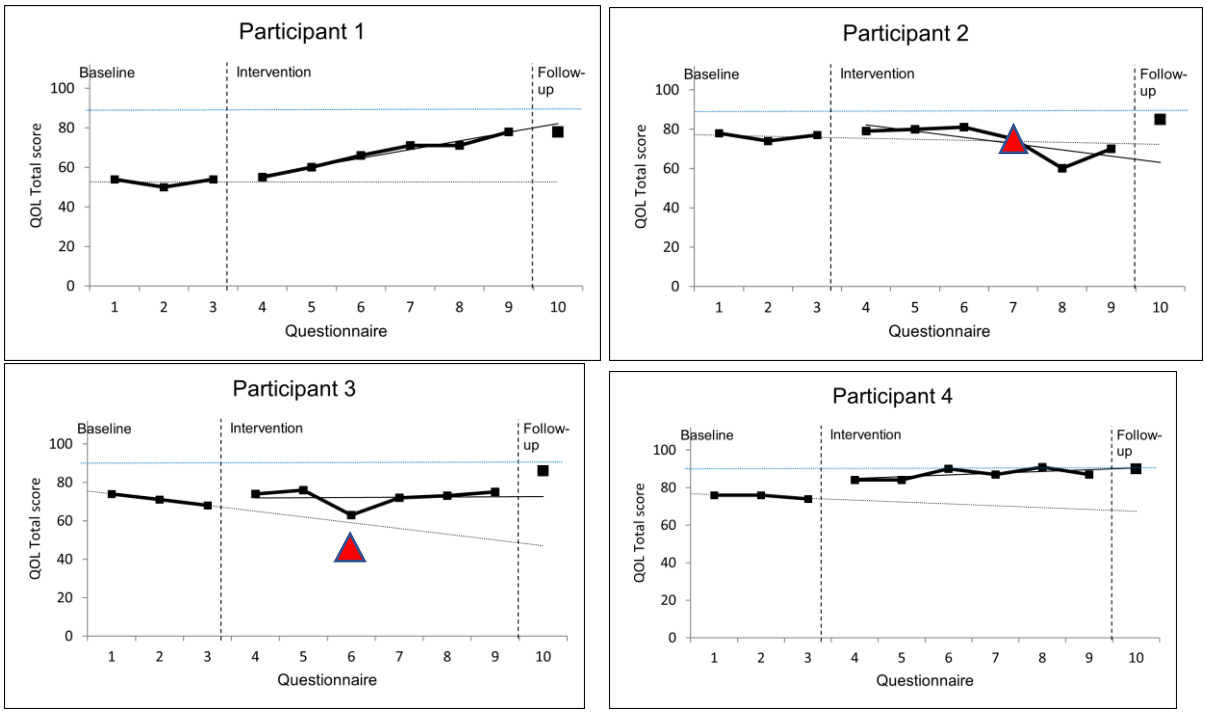

Figure 17. Graphs showing QOL results for Participants 1–4.
Note: The blue dotted line depicts the average score for QOL in a healthy population.
▲ = a significant traumatic event took place at that point during the intervention.

The QOLS scores are summed so that higher scores indicate a higher quality of life. The average total score for healthy populations is around 90. Burckhardt and Anderson (2003) state that it is reasonable to expect that patients who participate in a treatment programme

and rate their symptoms as improved by 60% or more will gain 7–8 points on the QOLS total score.

Of note is the fact that, as can be seen in the visual analysis in Figure 16, all participants' baseline trends initially indicated a projected decline in quality of life. Three of the four participants (P1, P3 and P4) demonstrated a direction of change towards a positive improvement of QOL during intervention stage. P2 demonstrated a decrease in QOL during the intervention stage but by follow-up their QOL score had significantly improved. PND shows that levels of change were significant: P1 (100), P2 (57.14), P3 (42.85) and P4 (100). P1 and P4 showing large (maximum) significant effect sizes of 100%.

3.6.5 Ruminative Response Scale

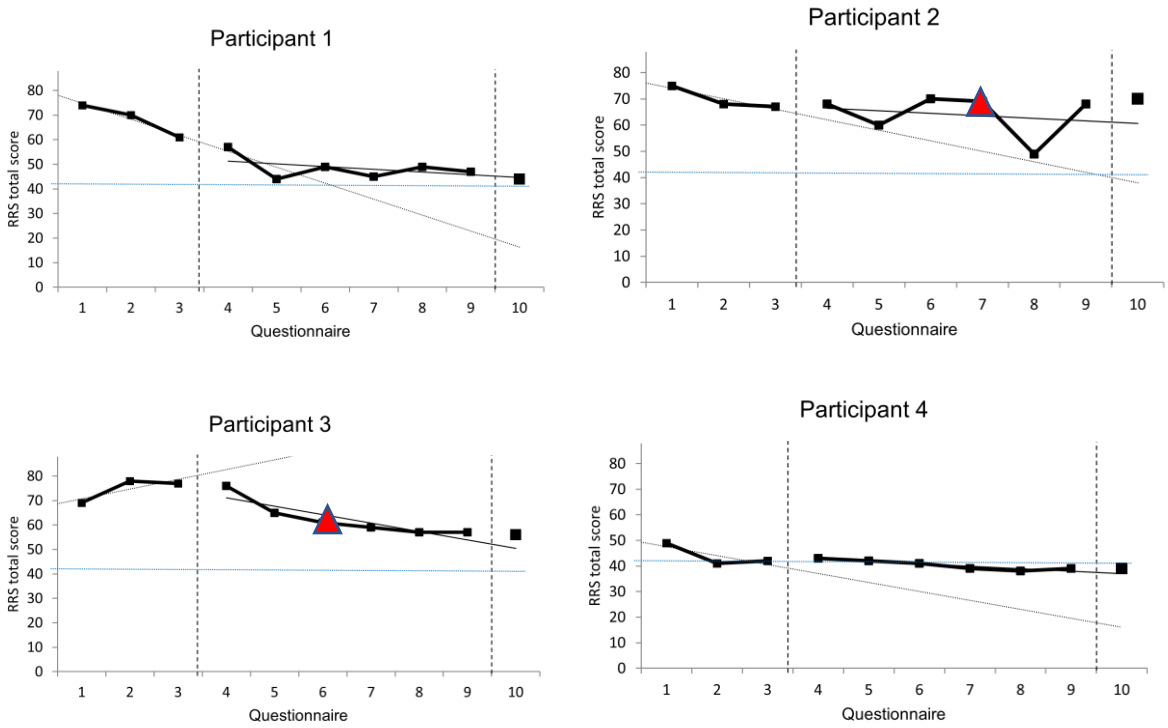

Figure 18. Graphs showing RRS results for Participants 1–4.
Note: The blue dotted line depicts the average score for RRS in a healthy population.
▲ = a significant traumatic event took place at that point during the intervention.

Three participants scored much higher than average for the RRS pre-treatment, and the trend lines extrapolated from baseline indicated a downward trend for three of them. P1, P3

and P4 all demonstrated a significant decrease in ruminative response style from pre-treatment to follow-up. P2 showed a minimal change which was of non-significance according to RCI. PND shows that levels of change were significant: P1 (100), P2 (14.28), P3 (85.71) and P4 (28.57).

3.6.6 ERQ results

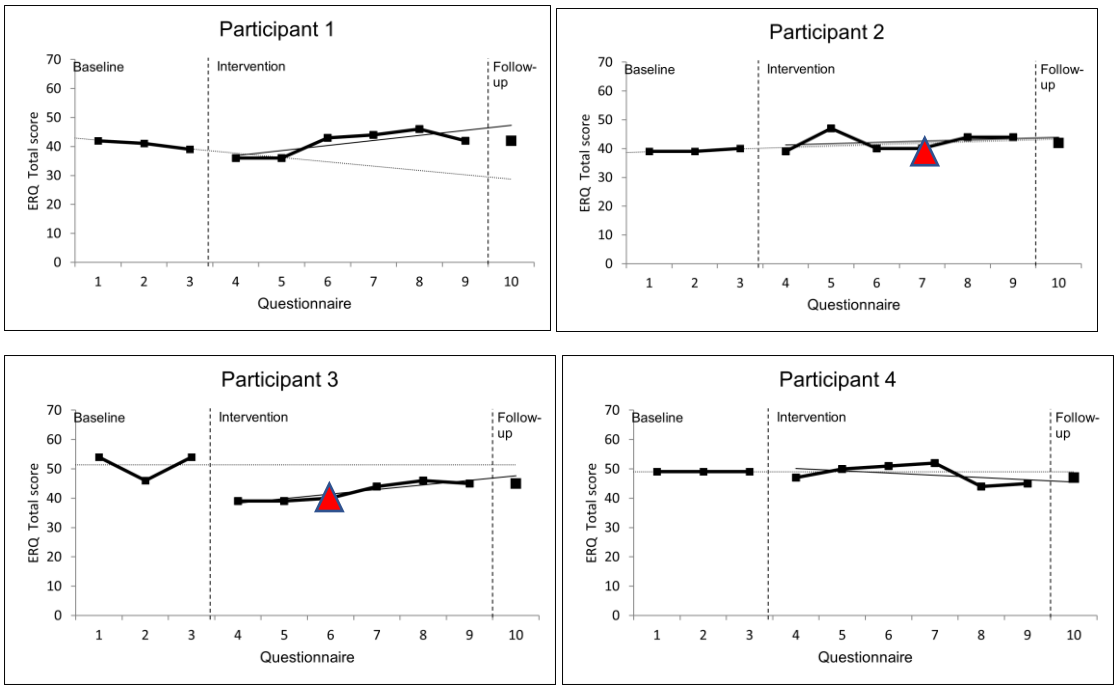

Figure 19. Graphs showing ERQ results for Participants 1–4.
▲ = a significant traumatic event took place at that point during the intervention.

Figure 19 shows that ERQ responses, unlike those recorded by many of the other measures, were relatively stable throughout intervention. P1's remained unchanged at final follow-up scoring. P3 and P4's had decreased slightly over time to follow-up, and P2 showed a slight increase in score. PND shows that levels of change were significant: P1 (71.42), P2 (100), P3 (0) and P4 (28.57).

3.6.7 Change interview results

The data gained from the change interviews is summarised in Table 15.

Table 15
Change interview data from four participants summarised by question.

Question	P1	P2	P3	P4
1. How are you doing now in general?	Better.	Very much better.	A lot better.	Better.
2. How has the ACT therapy been for you?	Very good.	Very good.	Good.	Good.
3. What changes, if any, have you noticed in yourself since ACT therapy began?	Increased social connection. Been more authentic with others. Been engaging more socially. Increased self-compassion. Increased self-awareness. More empowered.	Increased functioning. Increased acceptance. Increased emotional regulation.	Improved mood for longer periods. Drastically improved sense of self-worth and self-compassion. Reduced people-pleasing.	Improved communication in relationships. Study/life. Decreased self-judgement.
4a. Has anything changed for the worse since you started ACT?	No.	Not really.	Only some life circumstances.	No.
4b. Is there anything that you wanted to change that hasn't since therapy started?	No.	No.	Yes, anxiety and overthinking.	No.
5a. For each change, please rate how much you expected it vs. were surprised by it.	5: Very surprised by it.	4: Somewhat surprised about change of perspective on anxiety.	Self-worth: 5 (very much surprised by it). Less people-pleasing: 4 (somewhat surprised by it).	3: Neither expected nor surprised by the change.
5b. For each change, please rate how likely you think it would have been if you hadn't been in ACT therapy.	1: Very unlikely without therapy (clearly would not have happened)	2: Somewhat unlikely without therapy (probably would not have happened)	1: Very unlikely without therapy (clearly would not have happened)	2: Somewhat unlikely without therapy (probably would not have happened)

Table 15
Change interview data from four participants summarised by question.

Question	P1	P2	P3	P4
5c. How important or significant to you personally do you consider this change to be?	5: Extremely important	4: Very important	5: Extremely important	5: Extremely important
6. Attributions: In general, what do you think has caused these various changes (including things both outside of ACT therapy and in therapy)?	Been doing yoga more as well as more mindfulness, realising what I want in life more. Self-awareness.	Different perspective led to different goals. Experiments between sessions.	Realisation of extent of past difficulties. ACT has given a new different perspective. Comparison with friends.	Intrinsic motivation initially. Personal support in therapy session. Outside of therapy, deadlines were motivating.
7. Helpful aspects: Can you sum up what has been helpful about your ACT therapy so far? Please give examples.	Mindfulness, emotional regulation techniques. Acceptance of difficult emotions. Self-knowledge of dimensions of self (through passengers on the bus). Increased empathy (for other people's passengers). Therapist's approach and attributes. SE exercises.	Passengers on the bus exercise. Enabled acknowledgement of various needs. Sharing this exercise with others. Defusion exercises. SE exercises.	Helping to define goals in life that align with values. Definitely being listened to and supported. Therapist's approach and attributes. SE exercises.	Learning emotional regulation techniques and emotional defusion (leaf on river exercise).
8a. What kinds of things about the therapy have been hindering, unhelpful, negative?	Nothing.	Nothing.	Sometimes the emailed resources did not feel accessible in a moment of overwhelm.	Nothing.

Table 15
Change interview data from four participants summarised by question.

Question	P1	P2	P3	P4
8b. Were there things in the ACT therapy which were difficult or painful but still OK or perhaps helpful?	Revisiting painful events at times but at the same time it is helpful to go over them as well sometimes. It was difficult to push myself out of my comfort zone.	Initial distress that anxiety cannot be dismissed entirely. However, this led to increased freedom overall, and a new perspective of accepting anxiety.	Nothing was difficult about the therapy. Life was difficult, though.	Initially, talking to therapist about difficult things. But helpful in the end as found a narrative safely.
8c. Has anything been missing from your treatment? (What would make/have made your therapy more effective or helpful?)	Having longer time in therapy. Having more sessions to really hone the new techniques and create new pathways. Good to practise the techniques with the therapist.	Not really, no.	Desire to unpack past trauma more.	No.
9. Do you have any suggestions for us regarding the research or the therapy?	Would have liked longer time in therapy, 8–10 weeks ideally.	Online therapy might be hard for some people to open up.	Having more sessions would have been good.	Online questionnaires are useful as you have more time to think and answer them.

Notes: 'Passengers on the bus' exercise is an ACT experiential exercise whereby different parts of the self are identified, and the role of each part is explored and validated. The participant can then identify when these parts show up and can chose to follow advice or coercion of the part, or to choose a different action based on their pre-identified values and goals.

SE exercises comprised butterfly hug, self-havening technique (transpirational), safe-place embodiment and dropping anchor, psychosensory exercises.

Mindfulness comprised a range of techniques including mindful breathing, body scan, leaf-on-a-river technique (whereby thoughts are seen as leaves floating by on a river), eternal blue sky visualisation (whereby thoughts are seen as clouds floating through the eternal blue sky – self-as-context, where the sky represents the self).

3.6.8 Framework analysis

There were *a priori* themes created by the change interview (Appendix 1). These were a) the therapy, b) core ACT processes, c) changes. After immersion in the change interview data and extensive listening and transcribing, this framework could be expanded upon and further themes were generated, as can be seen in Table 16. Further analysis, including direct quotes, can be found in Appendix 8.

Table 16
Expanded themes from framework analysis

ACT processes	The therapy	Changes
Values	Acceptability	Perspective
Acceptance	Feeling safe	Behaviour
Committed action	Difficulties	Integration
Self as context	Skills/techniques	Coping better
Defusion		
Contact with present moment		

Overall, participants' responses in the change interview were congruent with the responses in the quantitative data.

3.6.9 ACT processes

The six ACT processes – values, acceptance, committed action, self as context, defusion, contact with present moment – were all tied in with the expanded framework, so in order to avoid duplicating data they are mentioned as being intrinsically linked within the two strands of 3.7 The therapy and also 3.8 Changes. Considering the ACT processes in this way adds another level of understanding and interpretation (see below).

3.7 The therapy

3.7.1 Acceptability

When acceptability was discussed in the interview, no participant identified any unacceptable elements. P3 and P4 rated their experience of trauma-focused ACT as good and P1 and P2 rated theirs as very good. All participants rated that they were feeling better,

a lot better or very much better at follow-up. When asked if anything was missing from the therapy, P1, P2 and P3 stated that they would have preferred more sessions; P1 specified 8–10 sessions would have been preferable to 6. P4 particularly liked the online questionnaires that could be completed remotely, as it meant they had more time to think and answer them in their own time. P3 specifically said that they felt they had a lot more unpacking of trauma that they would have liked to have had time to do. P2 commented that some people may find it too difficult to open up online initially. They also commented that their initial expectation for therapy was to do more talking about problems but were pleasantly surprised that they were now equipped with skills which meant that they could reduce their internal distress more easily, which reduced the need to talk things out so much with others.

3.7.2 Feeling safe

When asked about how the therapy had been experienced, every participant mentioned that they felt more at ease in general at follow-up. P1 felt 'more at ease with myself'. P4 felt more relaxed in general. Although P3 was still reporting feeling very stressed about current life events, they were emphatic about stressing how safe they had felt during the therapy sessions and mentioned this several times in the interview – for example, 'I think like the most important thing is like the safe place.' P1 also mentioned how they felt safe during session, saying, 'You made me feel safe from the start, your way of being accepting and warm.'

All four participants also specifically mentioned their use of the SE techniques when they were feeling activated between sessions and how these had enabled them to feel safer, more regulated and less anxious, and even enabled them to change their behaviours. Statements from the change interview corroborated the change in measures related to anxiety in that P1, P2 and P4 all reported significant reduction in the GAD-7 measure. P3's GAD-7 score remained unchanged from baseline to follow-up, but this could be understood

further by referring to the subjective research journal which showed that P3 was still living within one of the relationships that had caused their initial trauma so were still dealing with the anxiety day-to-day.

3.7.3 Difficulties

When I asked which aspects of the therapy had been unhelpful, hindering or negative, P1 reported nothing had been so. P3 commented that sometimes the resources from sessions did not feel accessible enough in a moment of overwhelm (regarding emailed resources). P4 reported that some of the exercises 'felt weird in the beginning' and that it had been hard to visualise some of the techniques, such as 'leaf on a river'. They went on to add that with practice this ability improved and it 'got easier to be in the moment', but in moments of overwhelm some visualisations did not always work to reduce this. P3 reported that the most difficult thing for them was external challenges, i.e. living with the ongoing situation, which was stressful, particularly when they returned home for holidays or when they had contact with the individual associated with their trauma. P1 and P4 mentioned that talking about traumas had felt difficult at first, but both added that it was beneficial in the long run to have done this. (Even though during the therapy sessions trauma was worked on for the most part content-free, there were still difficult thoughts and emotions which the participants tuned into during the intervention, which was clearly challenging.)

3.7.4 Skills and techniques

Skills and techniques were another heavily weighted theme in the framework analysis. Skills learned in therapy were mentioned by every participant. P1 and P2 both specifically named the 'passengers on the bus' exercise as something that they used regularly and found beneficial. P1 even elaborated to say that they were now becoming aware of other people's passengers on the bus, indicating increased empathy and understanding of others due to this skill. P2 named this exercise as something they had shared with their friends as they found it so helpful.

Havening was another skill which was named by P1, P3 and P4 as being a useful calming skill which induced calm in moments of overwhelm and enabled better coping. P3 had found this particularly effective at calming them in moments of distress and they had taught the skill to their friends also.

Mindfulness skills were also named by P1 and P4 as helpful. P4 stated that the mindfulness technique 'leaf on a river' was particularly effective at allowing them to control their thoughts and to reduce the impact of intrusive thoughts.

The 'identifying values' exercise was cited as beneficial by P1 and P3. P3 stated that it was helpful to define their goals in life which aligned with their values. P1 also said that they now realised more what they wanted from life. Interestingly, the participants who identified that they now knew more what they wanted from life had also taken the most actions towards these goals; P1, P3 and P4 had all changed their behaviours in relation to idiographic aims they had identified for therapy from the beginning as a direct result of identifying their values (a core ACT component). The change interview in this instance corroborated the objective research journal, which recorded valued action taken by each participant as being frequent and consistent for P1, P3 and P4.

Idiographic tasks between sessions was another technique which was named as helpful by P1, P2 and P4, with P2 stating that these felt like 'experiments' between sessions. These behavioural changes can be recognised as the core ACT component of committed action.

3.8 Changes

3.8.1 Coping better

All participants mentioned coping better with life since the intervention. P1 mentioned being able to calm themselves down and be more at ease with negative emotions, as well as feeling more willing to face these negative emotions. P2 mentioned how, when things get

difficult, they can now have a plan and know that there are things they can do to reduce the distress, as well as noting that they were now coping with the distress better, in that it was not stopping them from 'doing life' and doing their activities anymore. P3 mentioned that they were coping better with overwhelm and that havening in particular helped with that, and P4 mentioned that coping mechanisms from the intervention in general had been very helpful.

Mood improvements were also reported from all four participants. This reinforced the quantitative data from the PHQ-9 which showed P1, P2 and P4 all displayed reliable significant improvements according to NHS (2014) of ≥ 6 to mood (see Table 14). P3 specifically reported that their depressive periods were much shorter now than before the intervention. However, they were the only participant to fail to show reliable significant change as their PHQ-9 score improved by only 4 points.

3.8.2 Perspective

All four participants made several comments about changes in perspective, which was a heavily weighted theme of the framework analysis, mentioned 11 times in total. P1 reported that they were aware of being much kinder to themselves now and that this had led to them living a much more authentic life. Now that they were aware of their own 'passengers on the bus', they were also seeing life from others' perspectives, which further speaks to the ACT component of defusion.

Compassion was a perspective which was reported as significantly changed by P1, P3 and P4. P3 stated that they had a drastically improved sense of self-worth since intervention, which had led to them becoming less of a people-pleaser, realising that they did not owe anyone anything. P4 reported that they have a 'different way of looking at thoughts now rather than hiding them away' and as a result hardly ever judged themselves. P4 added that they now had a different perspective of their childhood, which helped them to be more self-compassionate.

P2 made 4 of the 11 comments on perspective. Specifically, they reported that initially they felt a lot of rejection for anxiety and negative thoughts and previously had concentrated on trying to 'get rid of them':

> P2: My anxieties, like, I can't just work on stopping them. Like, they will always be there, and like that's okay … so I think that was like a massive thing for me, personally.

P4 went on to add that the change of perspective had led to a change in values in life:

> P4: Things like 'this anxiety will never disappear', like, I think in the start was very scary, when we thought about it was just like what … like, this was like my whole hope … but I think, like, that eventually kind of freed me … It's disappointing that there's no such thing as anxiety-free, and also, like, it was very disappointing, but now it's not disappointing, as I said – like, it's freeing.

P4 expectation of therapy was to free them from anxiety, but in the end they felt 'freed' by accepting the anxiety instead of rejecting it and fighting it internally.

3.8.3 Behaviour

Behaviour was spoken about in terms of internal behaviour (cognitions and emotional reactions) as well as more external tangible behaviours. With internal behaviours, many changes were listed, ranging from becoming aware of internal reactions or 'passengers on the bus' to making conscious decisions not to focus on some ruminative thoughts and allow them to exist but pass by (the 'leaf on a river' exercise) and planning ahead to use distraction techniques in order to break a rumination cycle. Tangible behaviours reported included making a conscious effort to turn off mobile phones for a set time, to allow focus on study, and deciding to spend less time with certain individuals who caused distress in participants' lives. Some of the more significant behaviours began with small steps such as deciding not to leave a room where social interaction was taking place when this would have

been a default reaction prior to therapy, and went on to involve decisions to dissolve dysfunctional relationships, strengthen difficult but important relationships such as those with family members, take action towards valued outcomes such as taking up yoga and meditation classes, and increase health behaviours such as exercise frequency.

3.8.4 Integration

Integration was identified and reported both as integration of self and also as integration with society. P1 spoke of how they felt more whole ('I feel more whole, like more myself)' and also reported how they had been engaging more socially, which was their principal difficulty pre-intervention. They also had been taking steps to speak up socially, which meant that they perceived their connections with others as more authentic. They also reported that they were now able to reach out to others more now, whereas pre-intervention they had felt unsupported and isolated.

P2 reported internal integration with regard to engaging with internal dialogue with aspects of themselves: 'That bus activity we did, you know. Sometimes, when like a lot of negative thoughts come out, I just think of that bus and, kind of like, trying to voice them down and, like, change the perception … I'm not really talking out loud and I do it by like in my head.' This internal dialogue helped P2 to accept their difficult thoughts, and they felt this also enabled them to become better at approaching tasks and between session goals for behaviour.

P3 reported that they were less likely to go along with other people who had a toxic influence on them: 'I don't spend time with people who drain me anymore. I recognise when someone is not good for me.' Although this comment it is not in the direction of increased social connection, it is related in the theme as it shows that dysfunctional social relationships were being recognised, and perhaps if quality of social support was being measured this participant may have shown as a negative score pre-intervention. But experience of social support and integration for P3 appeared to be moving in a more functional direction.

P4 reported that communication in their relationship was improved, as was their social life. Relationship issues due to a previous trauma had been a principal concern on entry to therapy, but P4 was now able to discuss issues honestly and openly which had led to increased closeness in their relationship. They had also integrated their work–life balance more as they reported that they were now able to manage university work better alongside other life demands.

3.8.5 Change interview results summary

These detailed discussions from the change interview add depth and richness to the quantitative data and help to illustrate some of the changes in measures and processes. They also help to provide more context for each participant in respect of their current life challenges and perpetuating life stressors. This adds another dimension of context for the participants and sheds light on potential external factors of attribution for change – particularly, for instance, in P2's situation, where we were able to discuss the outcomes and explore their thoughts behind sudden changes in direction and reasons for changes which may not have been expected. P2 was able to provide the background information, in Week 7 of the intervention, that they had been given notice that their visa had run out and that they may have had to leave their course. This event is marked as a red triangle in all line graphs for this participant (e.g. Figure 14). Participant 3 also experienced a significant life event during therapy – the death of a childhood friend – while simultaneously contracting COVID-19 mid-therapy. This is also marked as a red triangle on P3 line graphs (Figure 13).

3.9 Results by participant

Individual scores are here described per participant. PF outcome is the main variable being measured and has already intervention is not to alleviate symptoms (although this often occurs as a secondary order of change after therapy) been reported previously represented in. Individual PF scores are also here considered next to QOL scores, as per the aims of the study, to identify if process change may also result in secondary changes of other measures.

QOL is considered an important consideration alongside PF score, as the purpose of the ACT but to enable the participant to experience a life which they themselves consider to be of better quality in alignment with their own core values. Where the change interview is discussed, speech marks denote verbatim language used by the participants.

3.9.1 Participant 1

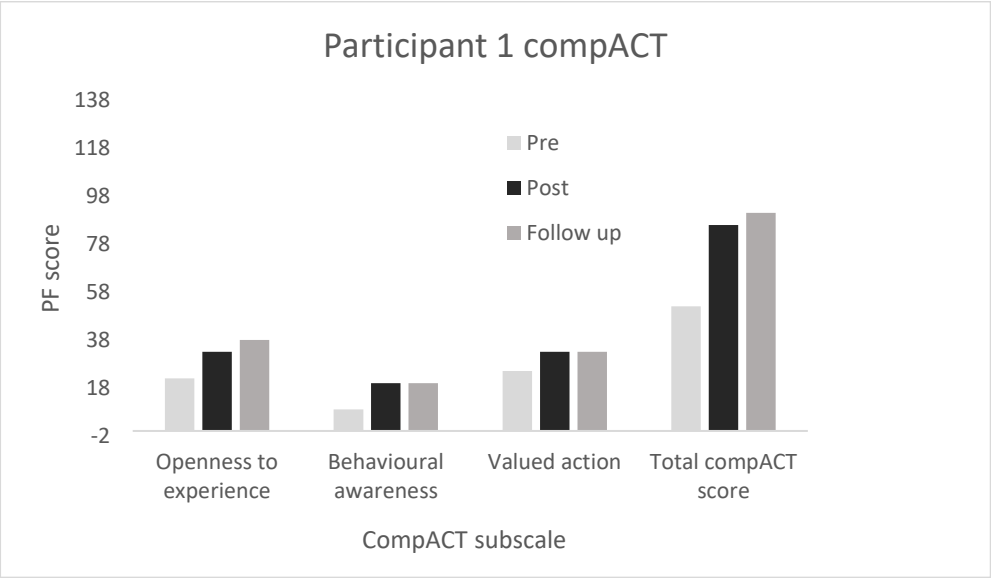

Figure 20. Bar graph showing the triflex broken down to subscales of CompACT relating to P1. This shows that each area improved from pre to follow-up with a stagnant point of little improvement of BA or VA from post to follow-up points.

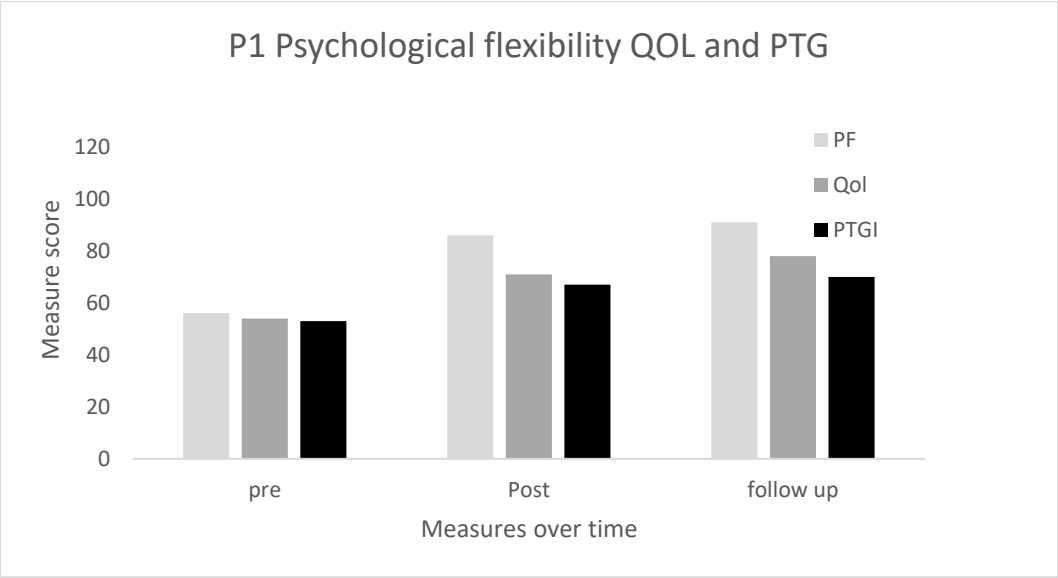

Figure 21. Bar graph depicting PF, QOL and PTG (post-traumatic growth) for P1 over time.

Psychological flexibility for Participant 1 showed significant improvement from baseline (56) to post intervention (86), with a further increase at follow-up (91) (see Figure 21). The increase in PF appeared to mirror in this participant with many other improvements in other measures, such as their PTSD score, which started as 27 pre-treatment and had decreased to 4 (see Figure 29) – a very significant decrease – at follow-up. CPTSD score had also decreased, from 34 to 7.

P1's GAD-7 score at baseline was 17, indicating clinically severe anxiety levels. Post-intervention, this had dropped to 7 (mild anxiety) and then dropped further to 4 (sub-clinical level) at follow-up. Their PHQ 9 score at baseline was 16, indicating a clinically moderate-to-severe level of depression. This had decreased post-intervention to 7 (mild depression) and had reduced further to 3 (sub-clinical level) at follow-up. According to NHS standards, results for both GAD-7 and PHQ-9 would indicate significant and reliable recovery (see Table 14). Participant 1's RRS score at baseline was 74, which was almost twice as high as the population norm for this score. This has reduced to 44 at follow-up, which took the RRS score to marginally above the population norm, indicating that P1's ruminative behaviours had significantly reduced after intervention. This was also the greatest difference in RRS score between all participants. Participant 1's ERQ score at baseline was 42, and this remained unchanged at post and follow up time points.

Both PTGI and QOL scores improved at each stage of the study. QOL began at 54, which was almost half that of the average population. This had increased to 78 at follow-up, and the trend line from intervention had a significant upward trend from baseline.

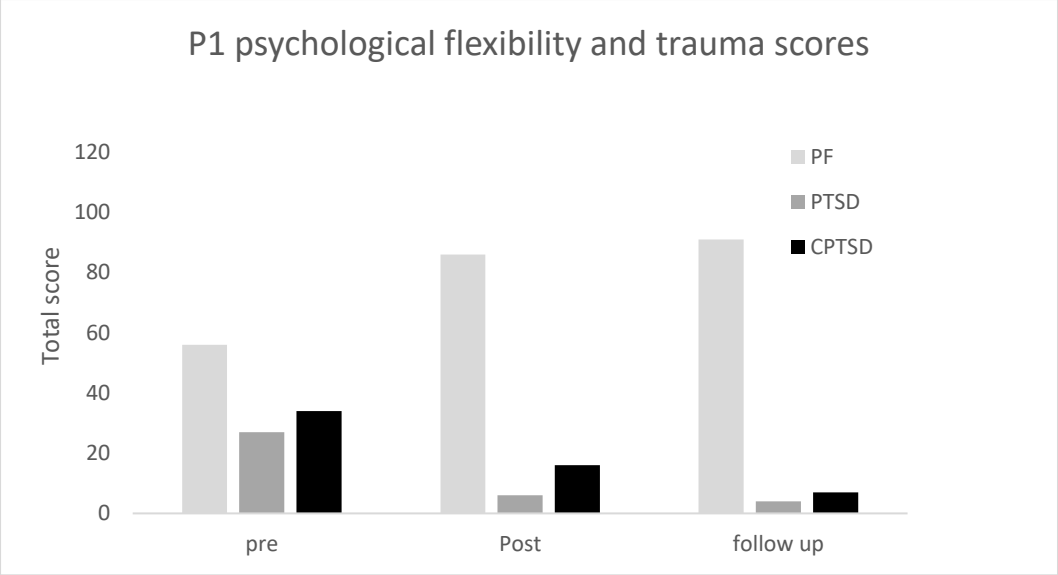

Figure 22. Bar graph showing how, as PF increased, trauma symptoms reduced in both PTSD and CPTSD for P1.

P1 gave a considered review of the intervention in their change interview. They noted how they were tangibly more at ease in general post-therapy and that they found the intervention helpful as it enabled a better understanding of themself and their family dynamics. This had enabled them to reach out to others for support rather than sink further into isolation at times when they most needed it. They had noticed that they had put clearer boundaries in place with current relationships and family, and had also developed a kinder way of talking to themselves internally that led to them feeling happier about being authentic. They were very surprised by these changes (5/5) and felt that they were very unlikely to have occurred without therapy (1/5). These changes were also seen as extremely important to them (5/5). Other possible external causes for these attributions were identified as more time spent doing yoga and increased mindfulness.

Consulting subjective process notes from the research, it was noted that this participant had engaged in emotional regulation techniques, SE and behavioural changes right from Session 1. Engagement remained high, with small steps being taken regularly towards their valued goals. There was a tangible change in P1 from the beginning to the follow-up. Acceptance of difficult emotions seemed to be a valued change, and they could give specific

examples of having used ACT techniques in recent weeks. They did not identify any hindering aspects of therapy but did state that more sessions would have been helpful as they found it useful to do experiential work collaboratively until they felt at ease with the techniques. The summarising quote below illustrates that difficult feelings and worries are still present, but there is less impact of these worries in that they are occurring less and despite their presence, joyful times are more frequent in their life.

> Summarising quote from P1: It's okay, like, you know, whatever happened will happen. I'll do my best, and I feel like we have more time to actually have more like joyous time … There's still stuff there, and I'm worried about stuff like this, but I think I definitely notice that I'm doing it much less.

3.9.2 Participant 2

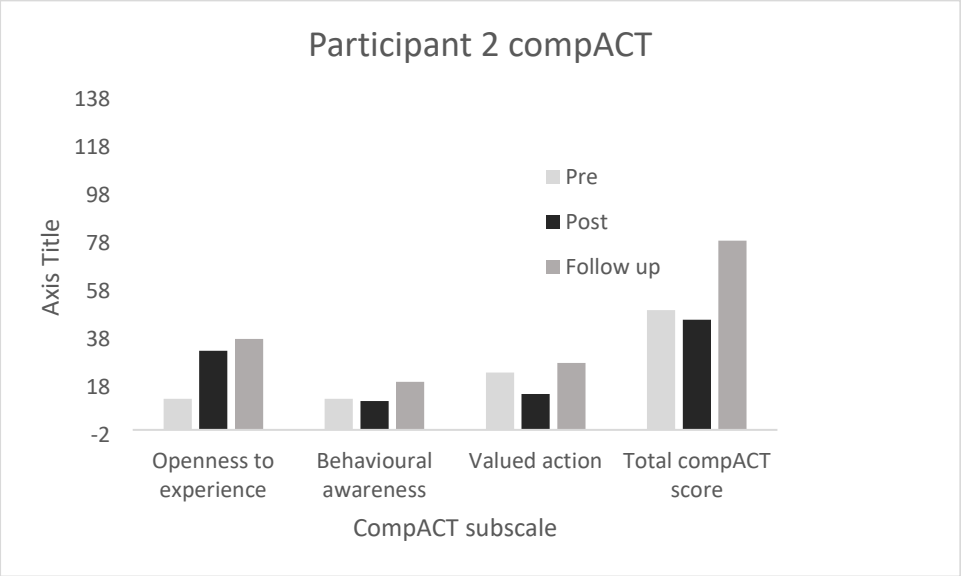

Figure 23. Bar graph showing the triflex broken down to subscales of CompACT for P2. This shows an initial improvement in openness to experience, but BA was static from pre- to post-treatment and most visible is a decrease in valued action from pre- to post-treatment point. (This coincides with a particular EA issue identified in sessions and noted in subjective research journal – see Table 15.)

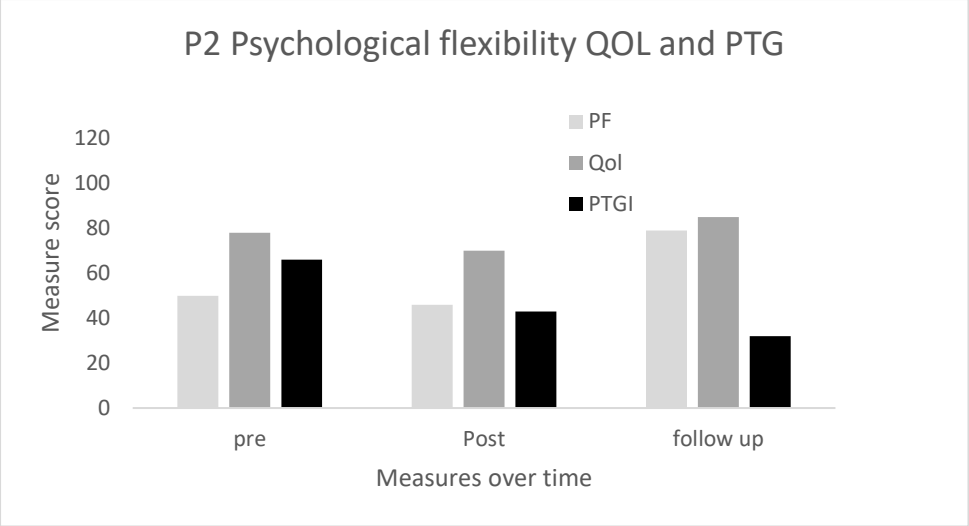

Figure 24. Bar graph showing a reduction in PF from pre- to post-intervention for P2. This is shown to be tracked by a reduction in both QOL and PTG. However, from post-intervention to follow-up, a significant increase in PF is then tracked by a rise in QOL, but PTG does not follow this pattern and instead continues to decrease.

Overall, PF for Participant 2 initially showed a decrease from baseline to post intervention (50–45). However, from post intervention to follow-up, a significant improvement was shown (46–79) (see Figure 24). Their PTSD score started as 19 baseline but then increased to 23 at post-intervention, but then went on to show a decrease to 13 by follow-up (see Figure 30). CPTSD score had also increased, from 18 to 26 baseline to post-intervention, and similarly showed a slight decrease to follow-up but remaining higher than baseline levels.

P2's GAD-7 score at baseline was 14, indicating moderate anxiety levels (see Figure 12). This had increased to 15 (severe anxiety) post-intervention and had dropped to 6 (mild anxiety) at follow-up. Their PHQ-9 score at baseline was 19, indicating a clinically moderate-to-severe level of depression. This had decreased post-intervention to 17 and had reduced further to 10 (moderate depression) at follow-up. According to NHS standards, results for both GAD-7 and PHQ-9 would indicate significant and reliable recovery (see Table 14). P2's RRS score at baseline was 75 (see Figure 23), which was also almost twice as high as the population norm for this score. This had reduced marginally to 73 at follow-up – also the smallest difference in RRS score change between all participants.

P2's ERQ score at baseline was 39, and this had increased slightly to 42 by follow-up. QOL score at baseline was 78 – 12 points below average – but this had increased to 85 at follow-up. PTGI declined throughout the study from 66 to 32 (see Figure 34).

Of note in Figure 24 is the fact that, when PF decreased between pre- and post-treatment phases, QOL also decreased for this participant. When PF increased between post-treatment and follow-up, QOL also increased. A notable finding within the individual process measure of PF and standardised measures was that, where the PF score increased, there was also significant clinical improvement, to the point that P2 reduced to 'reliable recovery' status in GAD-7, PHQ-9 and the International Trauma Questionnaire.

P2 reported how they had found particularly beneficial the process of accepting difficulties and still taking small steps towards valued outcomes. This change of perspective was a very important (4) change for them which they were somewhat surprised by (4), and they identified it as somewhat unlikely to have occurred without therapy (2). For them, a difficult aspect of the therapy was the shock of the realisation that anxiety can never be dismissed entirely, yet they pointed out that this realisation ultimately led to a definitely increased sense of freedom. They stated that they were engaging with activities in life in many more ways and with increased frequency, and that the emotional-regulation techniques had been so useful they had taught them to their friends.

I noted that, on first data collection from pre- to post-measures, this participant had actually appeared to experience *increased* anxiety PTSD and CPTSD scores – the opposite of what was expected. They had also not reported any external attributions for any outcomes. However, on follow-up some drastically positive improvements had occurred in many scores. P2 had not identified any external attribution for this, yet on consulting my subjective notes from my research journal I noted that, in the weeks leading from mid-therapy to post-therapy, they had been experiencing the threat of not having their visa renewed, which would have

meant having to leave the country mid-course and move away from their partner and friends. They were also not discussing this with anyone or doing anything to address the issue (see Figure 19). However, during the last session, this was one issue in which EA was confronted by P2, and a small behaviour task was set in relation to it. This became a goal of therapy, and once this particular hurdle had been addressed, P2 felt that this symbolised their progress and change of perspective and had solidified their emotional and psychological learning during the intervention.

3.9.3 Participant 3

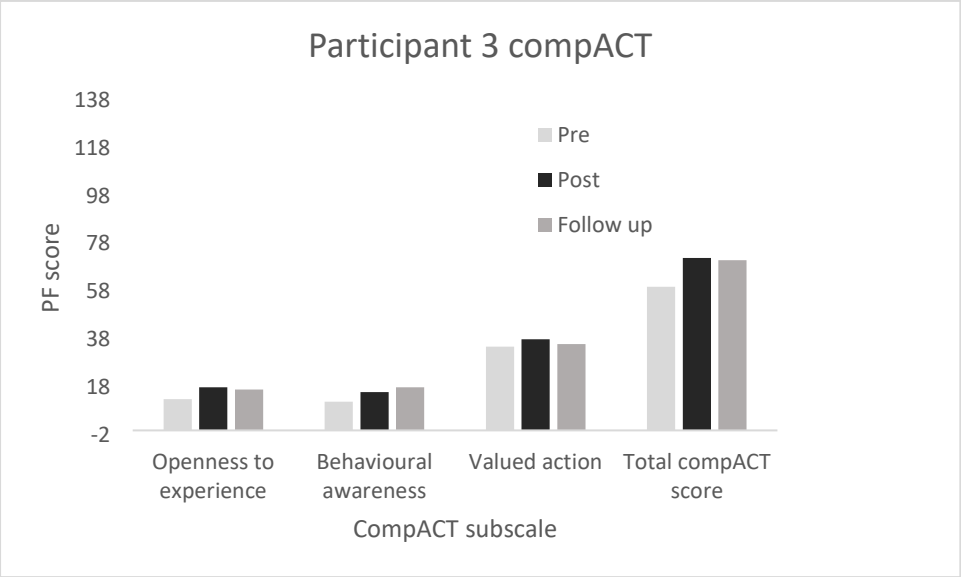

Figure 25. Bar graph showing the triflex broken down to subscales of CompACT for P3. This shows an overall increase in PF with most change occurring between post-intervention and follow-up.

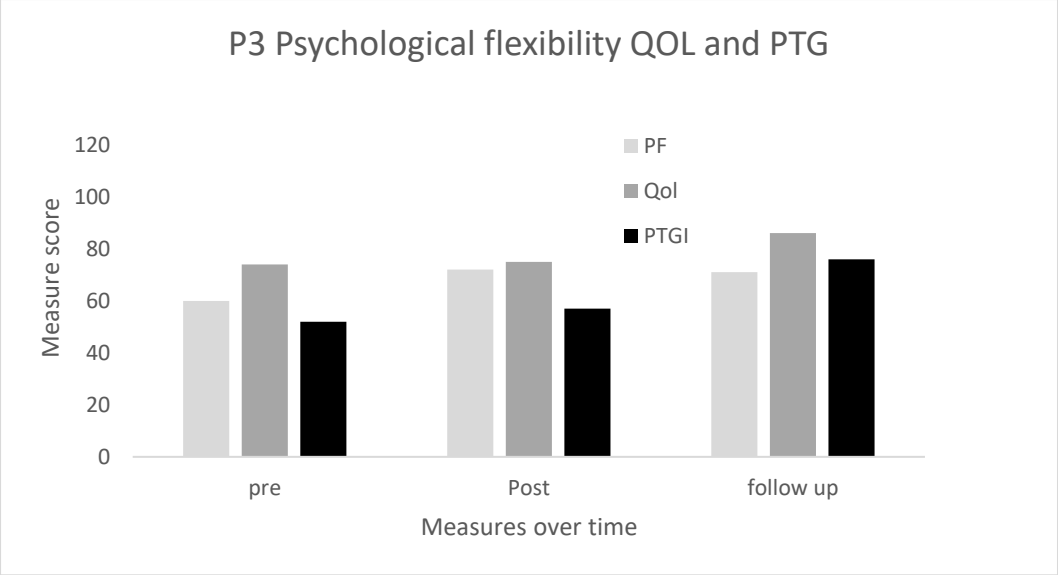

Figure 26. Bar graph showing PF alongside QOL and PTG for P3. This shows that, as PF increased pre- to post-intervention, it decreased slightly to follow-up. However, even despite this decrease, QOL and PTG continued to improve to follow-up.

Participant 3's pre-intervention score for overall PF was the highest of all participants. They showed significant improvement baseline to post intervention (60–72), and this had decreased to 22 at follow-up (see Figure 31). CPTSD score had also decreased, from 27 to 15.

P3's GAD-7 score at baseline was 16, indicating clinically severe anxiety levels. This was still 16 by follow-up (see Figure 15). Their PHQ 9 score at baseline was 15, indicating a clinically moderate-to-severe level of depression. This had decreased post-intervention to 12 and had reduced further to 11 at follow-up. P3's RRS score at baseline was 69, almost twice as high as the population norm for this score, and baseline trend was indicating a predicted increase in rumination scores. However, this had reduced to 56 at follow-up and the new trend line predicted continued to decrease (see Figure 18). P3's ERQ score at baseline was 54, and this was slightly reduced by follow-up (45).

Both PTGI and QOL scores improved at each stage of the study (see Figure 26). QOL began at 74 (see Figure 17), 20 points below that of the average population. This had

increased to 86 at follow-up and the trend line from intervention had a significant upward trend compared to baseline trend.

P3 reported in the change interview that their positive hope for the future had greatly increased since the intervention. One of the most valued aspects of the ACT intervention was the ‘safe space’ that the sessions offered. Differences noted were that their ‘depressive states’ were not lasting as long now and that they had a stronger sense of ‘not owing anyone anything’. While nothing had changed for the worse since the therapy, they were disappointed that anxiety and overthinking had not reduced more. They were very much surprised (4) by the positive changes and considered them very unlikely to have occurred without therapy (1 – clearly would not have happened). These were also extremely important positive changes that had occurred.

A further change was their perspective of themselves in relation to their preferred childhood and the traumas they had experienced growing up. P3 also found the emotional-regulation techniques immediately helpful – they helped them to ‘feel safe’ – and they had also taught them to their friends. Overall, they felt their self-concept had dramatically improved, to the extent that others had noticed this. Regarding aspects of therapy which were hindering, they found the email resources that were sent between sessions at times too difficult to access and would have preferred more immediacy for resources. P3 felt that what was missing from the treatment was the opportunity to ‘unpack trauma more’ and also would have preferred more sessions in the intervention.

3.9.4 Participant 4

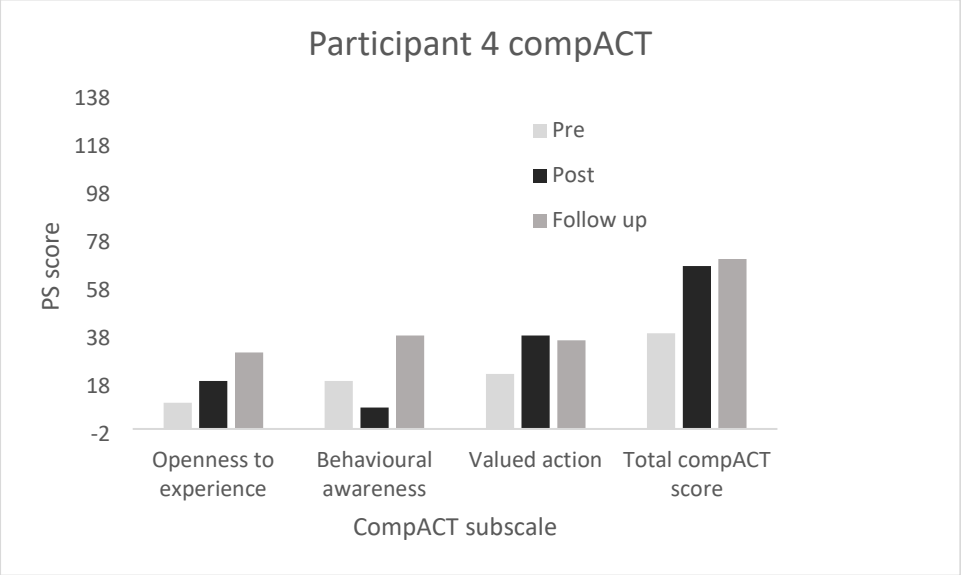

Figure 27. Bar graph showing the triflex broken down to subscales of CompACT for P4. Although their total score improved overall, BA declined between pre- and post-intervention and VA declined between post and follow-up.

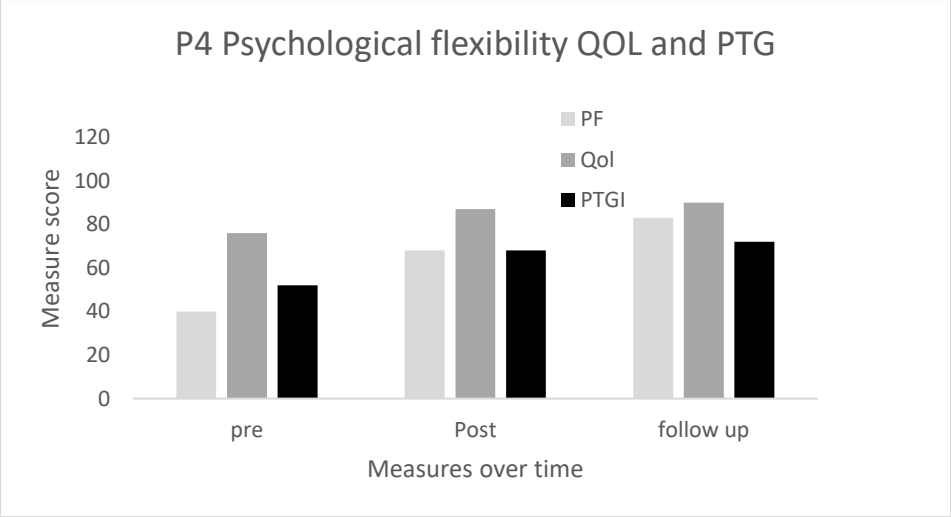

Figure 28. Bar graph depicting PF, QOL and PTG for P1 over time. PF improved at each stage, and QOL and PTG appeared to track this positive improvement.

Overall PF for P4 initially showed an increase from baseline to post-intervention (40–60). Further increase from post intervention to follow-up was shown (60–83) (see Figure 14). Their PTSD score started as 21 pre-treatment but then decreased to 14 at post-intervention, maintaining this level at follow-up (see Figure 32). CPTSD score had also decreased, from 14 to 5.

P4's GAD-7 score at baseline was 14, indicating clinically moderate anxiety levels. This had dropped to 7 (mild anxiety) post-intervention and this level maintained at follow up. Their PHQ-9 score at baseline was 12, indicating a clinically moderate level of depression. This had decreased post-intervention to 9 (mild depression) and had reduced further to 6 at follow-up. According to NHS standards, results for both GAD-7 and PHQ-9 would indicate significant and reliable recovery (see Table 14). Participant 4's RRS score at baseline was 49, which was the closest to the population norm of all participants for this score. This had reduced to 39 at follow-up, which took the RRS score to marginally below the population norm, indicating that P4's ruminative behaviours had significantly reduced post-intervention. P4's ERQ score at baseline was 49, and this was marginally decreased at follow-up to 47.

Both PTGI and QOL scores improved for P4 at each stage of the study (see Figure 36). PTGI began at 52 and had increased to 72 at follow-up. QOL began at 75 and had increased to 87 at follow-up, and the trend line at intervention had a slightly upward trend from baseline (see Figure 17).

Participant 4 reported at their change interview that 'everything [was] going quite well'. The biggest changes they had noticed in themselves were feeling more in control of their thoughts and communication improvements in their relationship. They also felt they had a better work–life balance and were more on track with their university work. They reported no changes for the worse and said there was nothing they had wanted to change and had not been able to. They reported that they were neither surprised by nor expected the changes that had occurred (3), felt that they would have eventually made these changes anyway regardless of the intervention, and rated the changes as extremely important. Particularly helpful aspects of the intervention were the exercises between sessions, which they felt kept them 'on track' with their goals. They had also found the anchoring exercises for stabilisation particularly helpful and reported that they had now been able to work their way through a trauma narrative which they had previously been avoiding. The safe place was a particularly

helpful exercise as they found it very grounding and calming when becoming triggered emotionally. P4 reported that unhelpful aspects of the intervention were that some of the exercises felt ‘weird’ at first (e.g. the ‘leaf on a river’ exercise) but that they got easier. They also stated that sometimes these exercises were not enough to calm them down, and in those times they preferred a taught SE technique such as havening.

3.10 Between measures: primary measure (trauma) alongside primary process (PF)

3.10.1 Psychological flexibility and trauma symptoms

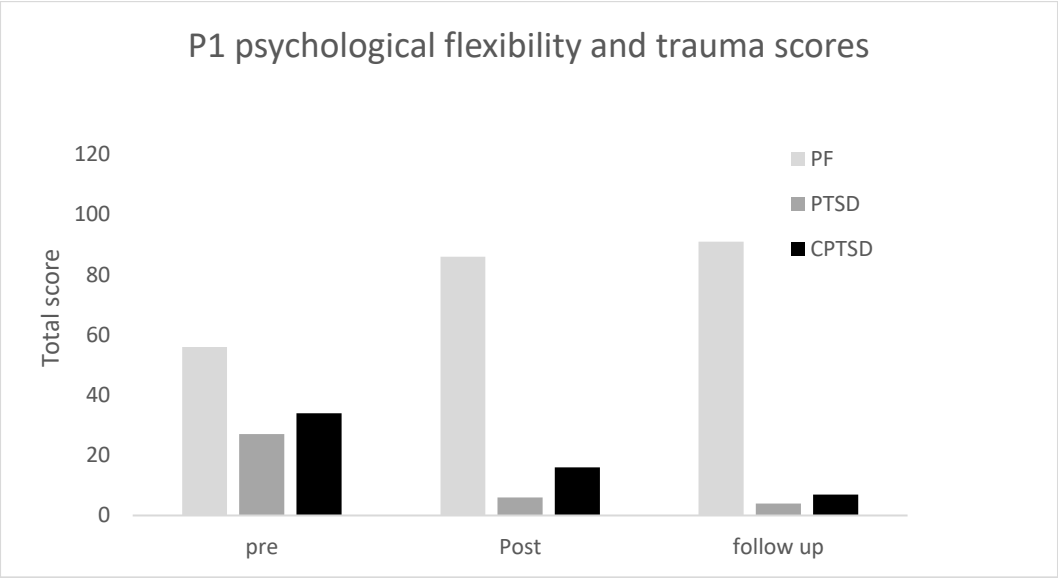

Figure 29. Bar graph showing how, as PF increased, trauma symptoms reduced in both PTSD and CPTSD for P1.

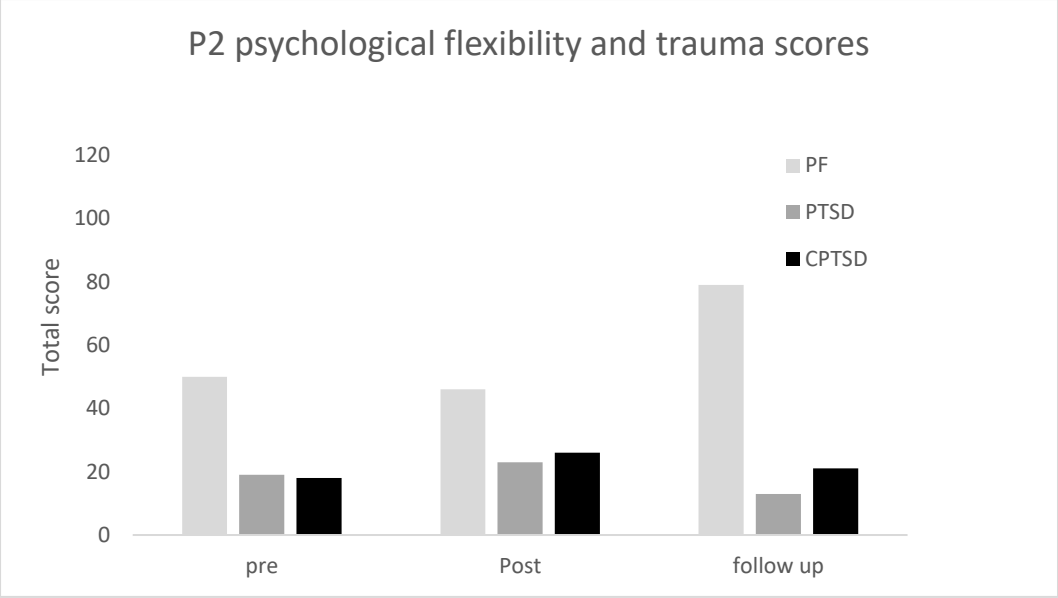

Figure 30. Bar graph showing how P2 PF decreased pre-post-intervention, but then increased at follow-up. This seemed to correlate with PTSD and CPTSD symptoms arising simultaneously to this reduction.

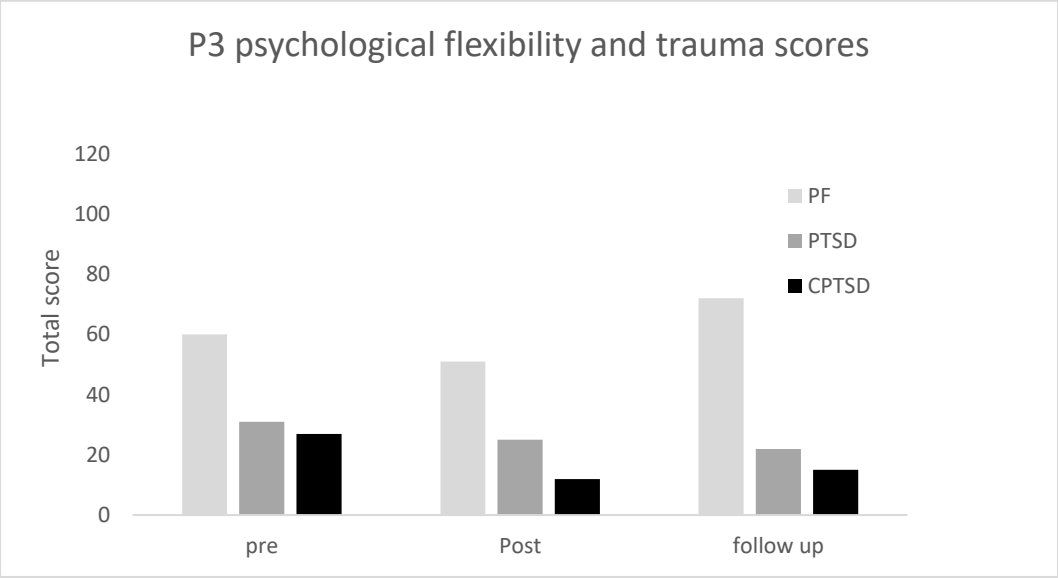

Figure 31. Bar graph showing P3's continued decrease in trauma symptoms despite a reduction in PF from pre- to post-intervention.

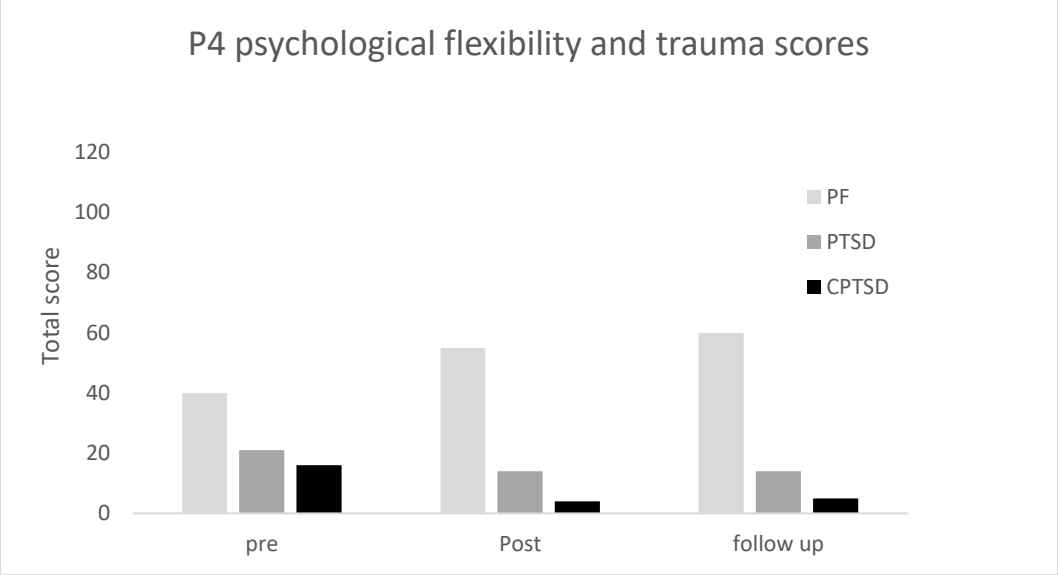

Figure 32. Bar graph showing PF levels for P4 increasing as trauma levels decreased.

3.10.2 Psychological flexibility, quality of life and post-traumatic growth

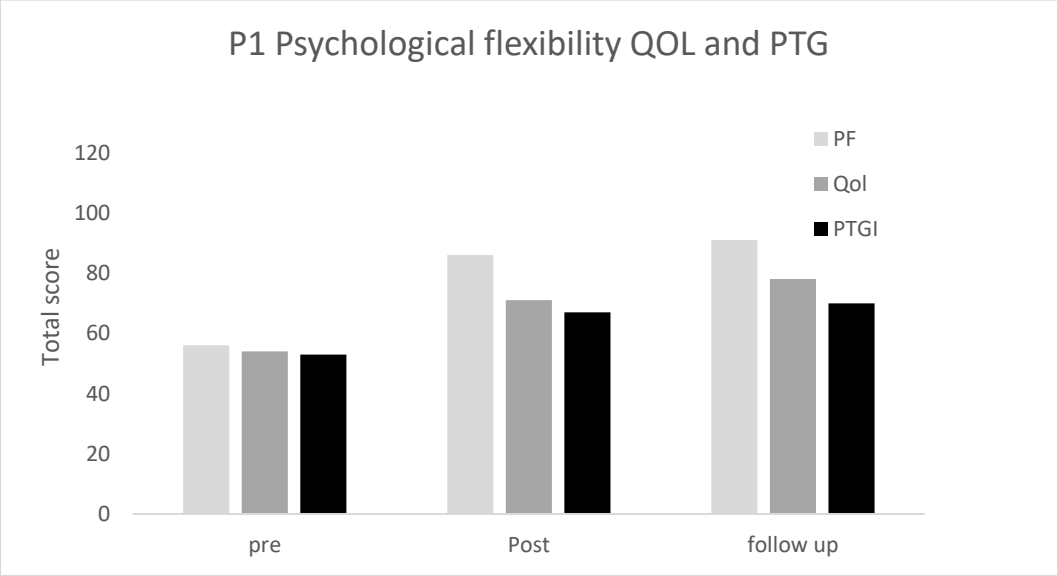

Figure 33. Bar graph showing how, as PF increased, QOL and PTG also increased for P1.

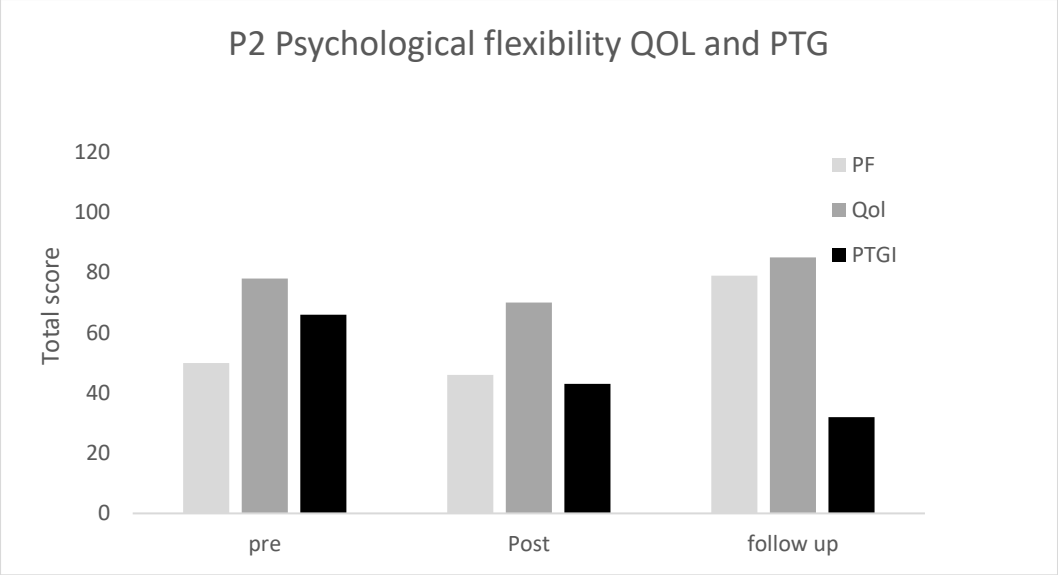

Figure 34. Bar graph showing how, as PF decreased for P2 pre- to post-intervention, so too did QOL and PTG. However, when PF then increased up to follow-up and QOL followed this trend, PTG continued to decline.

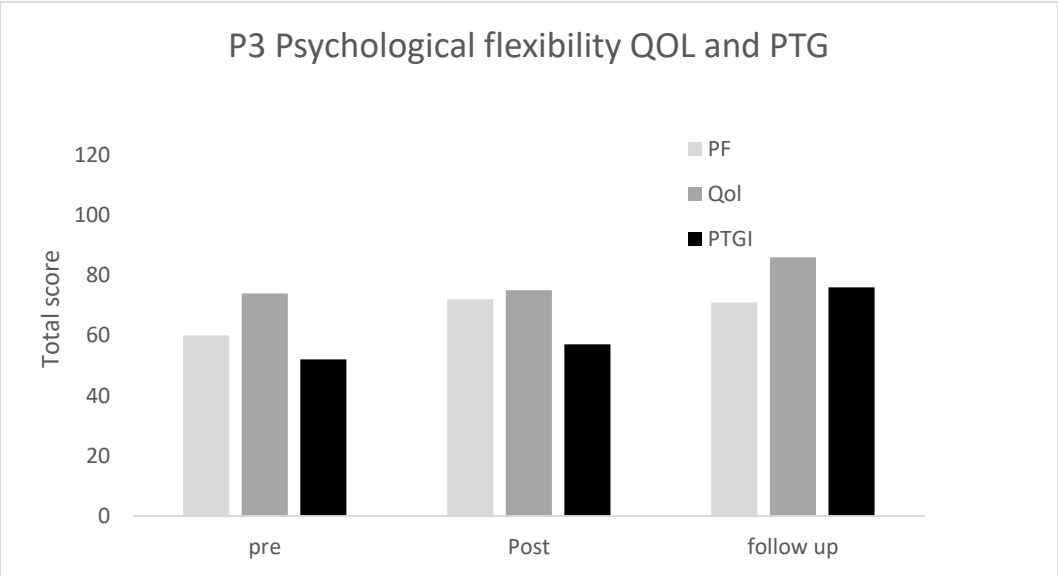

Figure 35. Bar graph showing how, as PF increased pre- to post-intervention, QOL remained unchanged while PTG improved.

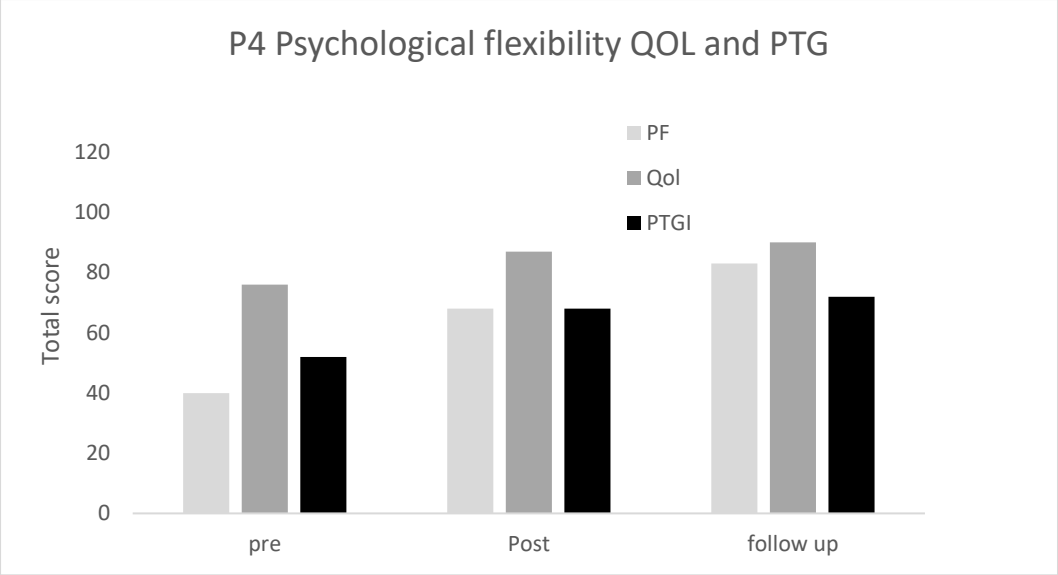

Figure 36. Bar graph showing PF change alongside QOL and PTG for P4. As PF increased at each point of the study, so QOL and PTG tracked these positive upward trends until follow-up, although further improvement in QOL and PTG from post-intervention to follow-up was minimal.

3.10.3 Psychological flexibility and quality of life

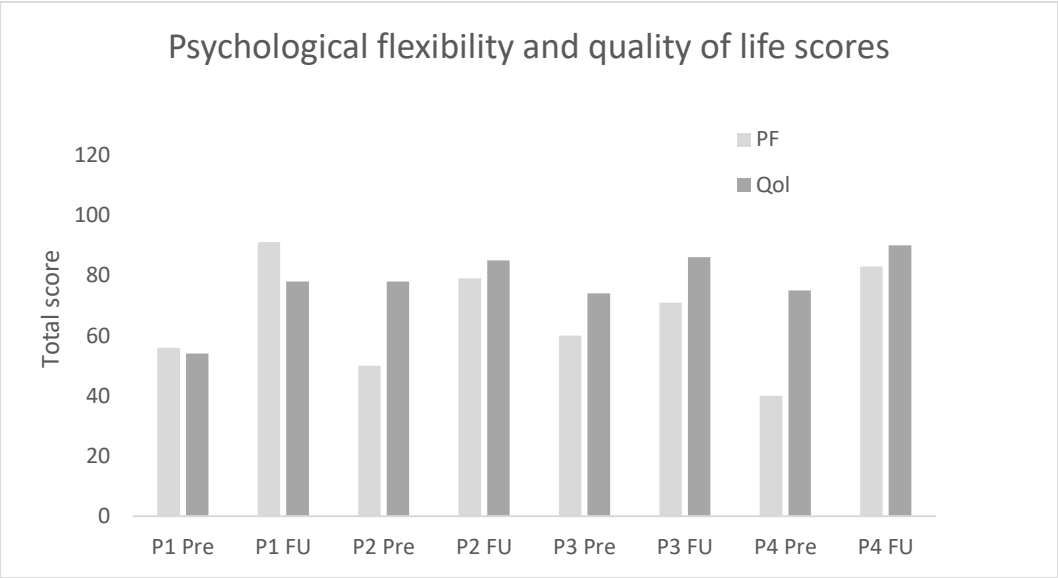

Figure 37. Bar graph showing each participant's changes in PF and QOL, pre- to follow-up (FU).

All participants' direction of quality-of-life scores improved positively in the same direction as their PF scores, which also improved pre-intervention to follow-up.

3.11 Evidence against desirability bias influencing the study

Due to the fact that I assumed the roles of both therapist and researcher, it was inevitable that, to some extent during the follow-up interview, the participants may have embellished answers in order to offer more (perceived) socially acceptable statements. The following comments were selected to illustrate the perspective that participants were not attempting to sugar-coat their responses due to desirability bias. Although it is likely that a certain amount of desirability bias may inevitably be in effect, the statements show that the participants were still struggling with some aspects of coping and felt comfortable enough to share this with me at their change interview.

> P2: I am better at approaching tasks. It's like still not ideal, [not] perfect, but I think what I'm doing is much more than I used to, rather than just be, like, so against them and, like, concentrating on like getting rid of them. So, I think that was like a massive thing for me personally.

> P2: That bus activity we did – you know, sometimes when like a lot of negative thoughts come out, I just think of that bus and kind of, like, trying to voice them down and like change the perception … I'm not really talking out loud and I do it by like in my head. I still do it … Or their complaints, kind of thing – like, when it gets very, very emotional, like, I do try to just like … sit down and maybe think of the [safe place].

> P2: A lot of it would come to my partner like, you know, like just my moodiness and stuff like this, but I think recently, even though it's still a bit stressful situation, so I think I kind of just came through.

> P3: I'm just as anxious, maybe like a little less anxious, but like I'm still quite an anxious person. I mean, I definitely feel like less like down and like depressed than I usually do, but like, as I said, I don't know because, like, it really goes in waves.

3.12 Intervention fidelity-testing results

ACT fidelity was assessed by an experienced ACT clinician and academic, Dr Nima Moghaddam, using the ACT fidelity measure ACT-FM (O'Neill et al., 2019). Purposive sampling of 15% of all sessions was utilised. Stratification was employed to represent equal sessions from each participant with a mix of early, mid and late sessions and to monitor each area of the triflex.

Results indicated a mean ACT consistency score of 34.5/36 and a mean ACT inconsistency of 0/30. A median item rating of 3/3 was achieved, indicating 'therapist consistently enacted ACT-congruent behaviours'. The rater concluded that the sessions were delivered with 'excellent ACT congruence and a beautifully facilitative style'. All triflex aspects (see Figure 4) were assessed as present for every rated session. For a full, detailed fidelity report, see Appendix 5.

Chapter 4: Discussion

4.1 Overview

In this chapter I discuss the findings of the study further in regard to theory and extant literature in order to highlight the original contribution of this study. I then consider counselling psychology and wider implications of the findings with suggested directions for future research. Strengths and limitations of the study are discussed before final reflexive and concluding thoughts are offered.

4.2 Discussion of findings

The aims of the study were:

1. to examine effects of a remotely delivered ACT-based integrative approach intervention on self-report of trauma symptoms during a pandemic, specifically in relation to PF and core processes of the model underpinning ACT
2. to ascertain whether a decrease in trauma symptoms as a result of increased PF has a secondary effect on anxiety and depression levels.
3. to explore if a reduction in trauma symptoms indicates further secondary positive gains such as improved quality of life, post traumatic growth and increased behaviours towards individually selected goals
4. to begin to assess acceptability and feasibility of a remote ACT-based integrative approach for this population.
5. to understand individual perspectives of participants regarding perceived change and attribution for these changes.

There was scarce literature exploring relieving trauma symptoms through ACT intervention, and even less that focused on remote interventions of this type, so this study had the potential to explore directly the feasibility, acceptability and efficacy of a remote ACT-based integrative approach with this invisible and underserved population, and to add new

knowledge and understanding in this area. Single-case research design was selected as the most appropriate methodology to provide rich and varied data which would provide rigorous experimental evaluation of intervention effects, but also as, importantly, it provides a useful basis for establishing causal inference (Kratochwill et al., 2010; Ray, 2015). Therefore, this study provided an opportunity to test the efficacy of a remote ACT-based integrative approach and to elucidate relationships between PF and other self-reported measures in this regard. There were some key findings in relation to changes in measures, and these changes were corroborated with findings in the change interview. Both avenues of findings are considered and discussed below.

4.3 Key findings

There were several key findings resulting from this study. Overall, it appears that an ACT-based integrative remote intervention is highly efficacious for some individuals in improving PF and simultaneously reducing trauma symptoms and other comorbid conditions. As can be seen in fig 8.1 wherever there are directional movements in the visual data showing PF, the directional movement of trauma symptoms is in opposition to the PF direction of movement in each participant. This indicates a possible correlation to an increase in PF resulting in decreased trauma symptoms. This also adds strength to the theory that the treatment intervention was efficacious and successful in its aim to reduce trauma symptoms. It was also efficacious in improving quality of life for individuals despite continued stressors being present in some participants' life experiences. These findings are discussed below.

4.3.1 Key finding: overall psychological flexibility

As can be seen in Table 11, overall PF increased significantly according to the RCI calculations for all participants from pre-intervention to follow-up. Also, P1, P3 and P4 all showed an increase in PF from pre- to post-intervention (Figure 6). P2 shows here a decrease between pre- and post-intervention, which is interesting when examined alongside some other results. According to the percentage of non-overlapping data (PND), effect size

for P1 and P4 was very large (100% PND), for P3 was moderate (42%) and for P2 was small (28%).

Although P2 increased in openness to experience from pre- to post-intervention, similarly to P1, P3 and P4, the other two triflex aspects declined throughout the intervention, but most notable was the steep drop in 'valued action', which reduced from 24 to 15. This mirrored a decline in quality of life (QOL) in this phase also. In this phase they showed a decrease in depression score but an increase in levels of anxiety, and also in their levels of trauma symptoms. What was particularly interesting was that, from post-intervention to follow-up, their valued action had almost doubled. This was more in line with the other three participants' CompACT scores' direction of movement, and it also then mirrored a correlational change in direction of QOL score, as from post-intervention to follow-up P2's QOL rose from 70 to 85. When examining the visual data regarding Trauma symptoms and PF levels there does appear to be a relationship between a positive change in PF mirroring a positive change in trauma symptoms. This would add strength to the conclusion that the intervention has been a success.

There appears to be a possible link here with quality-of-life improvement correlating with PF and, in particular, the ACT core process of valued action. This could, again, be understood in terms of the literature around trauma and increased experiential avoidance (EA). A possible explanation for this could be the link to valued action being aligned with intrinsic core values and EA levels. On consulting the subjective research journal, it was found that, during Phase B, P2 was stressed about their expired visa and were consequently experiencing a lot of EA and not dealing with the issue as a result. This then caused their EA levels to increase in severity, as the delay in re-applying for a visa meant that the dreaded outcome seemed more likely. It was in this session that P2 came to the conclusion that the EA in the form of their inaction was taking them further away from their value of a settled future as a professional. This issue was confronted in the final ACT session by using the ACT 'life path'

exercise, which focuses on small steps towards or away from desired values in life, where the identified small step of committed action was to make a call about the visa. The result of this call (after sessions had finished) was that the visa issue was resolved and P2 could continue with their course. The timing of this valued action appears to correlate with positive changes in many of the other measures for P2.

4.3.2 Key finding: an increase in quality of life

One of the key findings of this study is that quality of life improved in all participants who completed the intervention, and this was maintained at follow-up. This was a secondary benefit and this suggests that the intervention likely had a positive short- and mid-term impact on QOL. It had been hypothesised that, as PF increased, so too would quality of life and frequency of behaviours towards idiographically selected goals. This does indeed appear to be the case for all four participants. As can be seen in Figure 9, QOL increased for all four participants, and so the direction of change was positive. Burckhardt and Anderson (2003) state that an average score for QOL in the general population is 90. All four participants were well below this average, with a group mean of 70, with 61 being the norm for a PTSD sample (Burckhardt and Anderson, 2003), indicating that the sample was closer to the PTSD norm. However, by follow-up all four participants had moved closer to the general population norm score of 90 (as represented by the dotted line in Figure 9), with P4 actually improving to the score of 90. P3 had reached 86, P2 had improved to 85 and P1 had reached 78. Of note is that, as PF increased, so did QOL, which implies that PF is a mediating factor of QOL.

4.3.2.1 QOLS: meaningful change

When exploring the reliability, validity, and utilisation of the QOLS, Burckhardt and Anderson (2003) conclude that it is reasonable to expect that individuals who participate in an intervention and rate their symptoms as improved by 60% or more will consequently gain 7–8 points on the QOLS total score. Points gained on the QOLS for each participant in this

study were, from P1–P4 respectively, 24, 7, 12 and 15, with P1 attaining the highest gain and P2 the lowest. Yet all gains were ≥ 7–8 points, which indicates that an improvement of 60% or more of symptoms has been experienced by each participant. This result adds weight to the findings of Meyer et al. (2018), who found that QOL improved after an ACT intervention for war veterans with PTSD and AUD. This change can be understood in context of the literature cited in the Introduction regarding ACT and its propensity to enable individuals to reframe internal behaviours, which then leads to an ability to reduce experiential avoidance. As painful internal and external experiences are able to be tolerated and accepted by an individual, so it then becomes possible for hitherto seemingly impossible-to-attain positive behaviours and reactions to be accessed. This then increases the experiential possibilities and gives increased options and freedom to individuals to pursue their chosen path towards their deeply held intrinsic values by engaging in committed actions towards their chosen goals. Quality of life is seen in the ACT literature to be one aspect expected to improve when PF increases. Harris (2009, p. 29) speaks of the six core aspects of ACT as being like six facets of a diamond, with the diamond itself representing psychological flexibility, 'the ability to act mindfully, guided by our values. The greater our psychological flexibility – our capacity to be fully conscious, to open to our experience, and to act guided by our values – the greater our quality of life.' Hence this improvement was not unexpected from the intervention.

4.4 Quantitative measures

It was hypothesised that there would be an increase in PF as a result of the intervention, which may also have mediated changes in any of the self-reported measures of trauma symptoms, anxiety, depression, emotional regulation, post-traumatic growth, levels of rumination and quality of life, as well as behaviours taken towards specific goals. Each of these is discussed below.

4.4.1 Trauma symptoms and depression levels

Another key finding was the fact that there was a reliable decrease in the PTSD scores of all four participants, as well as a reliable decrease in CPTSD scores for three of the four participants. Interestingly, though, and converse to all other participants, P2 reported an increase in CPTSD symptoms at follow-up.

Mood levels for all four participants as reported by the PHQ-9 (see Figure 13) all fell significantly below the clinical cut-off point of 10 (mild depression) (NHS, 2014) at follow-up. This was especially meaningful when considering that, at baseline, three participants were reporting depression-severity scores of moderately severe (P1, P2 and P3) while P4 scored as moderately depressed. Considering the literature around trauma and depression already presented, depression along with anxiety is one of the most common comorbid presentations alongside trauma (Collishaw et al., 2010; Flory & Yehuda, 2015). As the data shows, all four participants experienced significant and reliable reduction in depression levels as well as a simultaneous decrease in PTSD symptoms (three of the four participants also experienced a decrease in CPTSD symptoms simultaneously). This adds weight to the theory that there exists a phenotype of trauma linked with depression (Davidson & Fairbank, 1993; Cloitre et al., 2013) rather than high depression levels simply existing as symptoms overlapping with trauma.

4.4.2 Emotional regulation and rumination levels

ERQ responses, unlike those recorded by many of the other measures, were relatively stable throughout intervention (see Figure 19). P1's remained unchanged at final follow-up scoring. P3 and P4's had decreased slightly over time to follow-up, and P2 showed a slight increase in score. This was an unexpected lack of change considering that trauma symptoms and depression levels had shown such large and significant improvements.

P1, P3 and P4 all experienced reliable change in rumination levels according to the RCI, percentage of non-overlapping data (PND) for each being P1 (100) P3 (85.71) and P4

(28.57). P2, who showed no reliable change in RRS, showed only a PND value of 14.28, which strengthens the case of P1, P3 and P4 displaying a significant change in comparison. This change can be understood by the literature offering preliminary evidence that rumination is malleable and that, when targeted, can reduce symptoms of PTSD (e.g. Sezibera et al., 2009), as well as depression, particularly via focus on over-general memories (Watkins, 2009). It was expected that rumination levels would exhibit change, particularly as it was expected that there would be an increase in PF through increasing present moment awareness, which was hypothesised would have interrupted the DMN functioning of the brain (Sridharan et al., 2008). As mentioned in Chapter 1, increased DMN functioning is linked to increased depression levels, and so it could be argued that, as rumination levels decreased, this might have been due to the participants living in the present moment more and engaging in the core ACT process of *contact with the present moment*, partly through use of mindfulness and psychosensory and SE techniques. It may also have been the case that, as participants came to increase acceptance throughout the intervention, the internal arguments and conflict that they had previously fused with their identities so solidly became defused, hence allowing them the freedom to disentangle their cognitive preoccupation with the past and worries about the future, and their internal suffering was reduced as a result (Hayes, 2013). This result does indeed add strength to the argument that an individual's inner dialogue and interpretation of experiences can exacerbate and maintain mental health disorders or alleviate them (Lønfeldt et al., 2017; Livheim et al., 2020; Burklund et al., 2017).

4.4.3 Post-traumatic growth

P1, P3 and P4 all showed a positive reliable increase in post-traumatic growth (see Figure 11). P2 shows a clear deterioration in this, however, from baseline to post-treatment, and then with further decline until follow-up. On further examination of the results and consideration of the data, it was noted that P2 was the only participant who saw a decrease in valued action from baseline to post intervention (see Figure 23). This was verified by

referring to clinical case notes and the subjective journal, which confirmed that there were very few actual actions taken in the direction of their valued actions. It could have been that, as P2 did not engage actively in the behavioural aspect of the intervention, this kept them 'unmoved' and stagnant in their difficult situations in life. There could have been many reasons for this such as a potential lack of readiness to make the changes, a lack of commitment or the possibility that they remained too fused with their internal beliefs even to take the first step. It may have been that life was just too difficult at that time for this individual to take action. However, their lack of engagement seems to have had the effect of reducing the levels of post-traumatic growth.

From consulting Table 9, it can be seen that P2 also experienced less positive benefits in many measures compared to the other three participants, all of whom saw positive improvements in between eight to nine of the nine measures being explored. P2 experienced positive improvements in only four of the nine measures. In terms of the experimental variable of PF, the main difference was this decline in valued action during the intervention phase. This could be understood further through the literature regarding powerlessness and its relationship to trauma in that helplessness is part of the landscape which creates PTSD symptoms (Ruden, 2019). When a trauma survivor retains the feeling of helplessness which was present during the trauma encoding and continues to live life with increased EA, it could be argued that this lack of action retains them in the helpless state and perpetuates the trauma experience in their present-day living.

4.5 Mid-way analysis

It appeared that, from the preliminary data for P1 and P2 up to post-intervention phase, a potential differentiating factor between the participant who made significant positive improvements in all areas (P1) and the participant who improved in only two of the self-report measures and actually worsened in some measures (P2) was the level to which they both engaged in behavioural awareness and activation.

Both participants increased their openness to experience factor, but P1 showed a significant positive increase in behavioural awareness and valued action (Figure 8), as opposed to P2, who showed a significant decrease in both these areas (Figure 10) from baseline to end-of-intervention phase. This was also reflected in the observation during therapy that P1 took small but definitive weekly steps to make behavioural changes. Each session as a 'preferred valued behaviour' was targeted. The specified behaviour was successfully completed almost always by P1 and P4, but less by P3 and rarely by P2. P2 differed in that, when a 'preferred valued behaviour' was identified, this was rarely carried out, even when the participant identified an initial willingness and confidence that they would carry out this behaviour. This correlation between measurable behavioural activation and clinically improved outcomes is apparent.

4.6 Impact of COVID-19

Consideration of the context of this research, as principally taking place during the COVID-19 lockdown, is of crucial importance in this study due to the nature of trauma experience, as discussed in the introduction. There were many additional traumatic elements brought to each of the participant's experience due to this, including the fear associated with possible contracting of the disease, fear for vulnerable family members and the helplessness and forced inaction of lockdown. All of the above could have contributed in a cumulative way to each individual participant's experience of the research as discussed in the literature review. The change interview and subjective research journal were additional sources of valuable supplementary qualitative data which gave perspective, understanding and elucidation of the quantitative data. This was particularly useful when considering the context of each participant's unique trauma experience, both from the past and during therapy through a pandemic.

4.7 Qualitative data

The qualitative data was gathered in the form of semi-structured interviews which were analysed using framework analysis. This data added richness and depth to the quantitative data and helped to understand processes and mechanisms of individuals' experiences. It was hoped that this would confirm and add strength to the quantitative data, as well as illuminate any areas of conflict between the two.

4.7.1 Change interview: discussion by individual (with unexpected results)

In keeping with the philosophy of ACT in that it is better to face difficulties than hide away from them, I take some time here to explore some of the unexpected findings which were not hypothesised.

4.7.1.1 P1

Overall psychological flexibility as measured by the CompACT for P1 appeared to improve to a greater trend than indicated by baseline. Each of the three CompACT process measures improved significantly post-intervention. A notable finding was that P1 not only had a clinically significant and reliable recovery in anxiety, depression and PTSD symptom score, but they also reported a significant reliable recovery in CPTSD symptoms (Figure 8). For example, P1 explained that they longed to feel authentic and to have a voice in their life, particularly in their relationship, yet in order to avoid conflict they were not speaking up when they were exposed to behaviours they were averse to in their relationship. Through the ACT intervention, and specifically through the 'passengers on a bus' exercise, they were able to see the functions of their inner voices and work towards their ultimate goal of being free to choose and being respected in their relationship. They then experienced a shift in perspective and self-context and began to see their avoidance as a perpetuation of their voicelessness. This created the space needed for a 'choice point' (Ciarrochi et al., 2013) to occur.

4.7.1.2 P2

The intervention was found to be acceptable by all participants. Indeed, improvements within many measures, as shown in the results section, indicate that the intervention was beneficial overall in many areas for each participant. Although P2 had a delayed improvement, as reported, due to life events, nevertheless there were clear improvements in many areas for them at follow-up.

Participant 2 had mixed responses to the questions in the change interview. They reported that one difficult aspect of the therapy was a realisation that anxiety can never be dismissed entirely. However, they pointed out that this realisation ultimately led to a definite increased sense of freedom, and commented on how they had found the process of accepting difficulties and still taking small steps towards valued outcomes particularly beneficial. They stated that they were engaging with activities in life in many more ways and with increased frequency, and that the emotional regulation techniques had been so useful for them that they had taught them to their friends.

Consulting my subjective notes from my research journal, I noted that on first data collection, from pre- to post-intervention measures, P2 had actually appeared to experience increased anxiety, PTSD and CPTSD scores – the opposite of what was expected. They attributed the threat of non-renewal of their visa as the root cause of this. Indeed, on follow-up, following the resolution of this issue, some drastic positive improvements had occurred in many of their scores.

Of note in P2's results is the radical change in perception of the anxiety itself. On consulting my subjective research journal notes, I was able to identify that this discussion took place in Session 6, their final session. Being able to place temporally the discussion about their perspective of anxiety, and about the fact that anxiety is something that will always be present with all of us, placed this difficult but also illuminating realisation for the participant in the context of their journey. Although their realisation that anxiety would not end was a

painful one, P2 had also found this intrinsically freeing (see Table 15 and *3.8.5 Change interview results summary*).

4.7.1.3 P3

Participant 3's baseline showed the highest PF, but their follow-up score for overall PF was the lowest of all participants. Therefore, their increase was the smallest of all four participants. This is interesting and was not expected, so deserves some exploration.

P3 at baseline also exhibited the highest of all participants for PTSD symptoms and second highest for anxiety symptoms as well as for CPTSD symptoms. Their current living conditions were perhaps the most difficult, as they were continuing to live in close proximity to a family member who was responsible (and continued to be responsible) for developmental trauma experiences. This may have been an influential factor for the results of their anxiety failing to improve, and also their depression levels improving only slightly from baseline to follow-up. However, interestingly, their trauma symptom scores reduced dramatically, and their PTG and QOL scores increased significantly. This can be interpreted as, although the life stressors remained present, the intervention appeared to have decreased the impact of trauma on P3's life experience.

It might also be hypothesised that without the intervention, extrapolating from the trends indicated from baseline for GAD-7 and PHQ-9 (see Figures 15 and 16), P3 was predicted to show increasing levels of anxiety and depression, as direction of change was towards negative outcomes in these areas. Interestingly, also, their projected QOL from following baseline trends indicated a projected decline in this area. There was also a projected increase of ruminative response. When the results are considered in line with what at first appears to be a disappointingly low comparative (in relation to the other three participants) increase in PF, the increase appears to have turned around the projected direction and steepness of decline in all of the above-mentioned measures, and when seen in this context there is a tangible, very visible change in the graphs' data. In relation to the literature

explored in the introduction regarding the ongoing potential lifelong impact of trauma, it could be hypothesised that, although P3 may not have reached as advanced a recovery for example as P1 in accordance with measures, the benefit they received from the intervention may well have reduced impact of further trauma, by increasing their PF. It may have changed the direction of their projected trend lines for many measures which were predicting worsening of several symptoms and measures if no intervention had occurred.

As P3 is now living with reduced impact of trauma, this may increase their chances of living a life that is more likely to be empowered and made up of life choices that are consciously chosen rather than those that are unconsciously affected by EA due to fear and a sense of imminent threat. The anxiety and sadness may remain due to current difficulties, but there appears to be a sense of freedom from the shackles of trauma, which can dictate their life course if not addressed.

P3 displayed a sudden change in direction of anxiety and depression scores in Week 6, when the death of a young and close friend occurred. (This event is represented on all graphs with a red triangle.) Their mood level understandably took a steep dive from this week, as would be expected from a sudden bereavement, but interestingly their anxiety levels also decreased sharply. On consulting the objective research journal, it could be seen that from this week, although it was a huge emotional shock for P3, the death of their young friend was also perceived as a wake-up call to them. They were extremely sad, but the loss of such a young friend with so much potential was discussed in sessions as also catapulting them into a new perspective. They now saw life as a precious thing, and the smaller stressors of life reduced in importance for them. With the loss came a renewed sense of appreciation of their own life and opportunities. P3 reported, ‘Any of us can die at any time; every moment is precious’ – an example of how a life event can be a stressor but also place a different context on suffering. This can be understood as a natural example of organic increase in acceptance and a desire to move towards a valued life, as well as getting the

smaller stressors in perspective, and thus when examined in context of the qualitative as well as quantitative data, this decrease in anxiety levels is unlikely to be due to the intervention and is instead more likely to be due to life circumstances.

They reported in the change interview that their positive hope for the future had greatly increased since the intervention. One of the most valued aspects of the ACT intervention was the 'safe space' that the sessions offered. Differences noted were that their 'depressive states' were not lasting as long now and that they had a stronger sense of 'not owing anyone anything'. Nothing had changed for the worse since the therapy, yet they were disappointed that anxiety and overthinking had not reduced more. They were very much surprised (4) by the positive changes and considered them very unlikely to have occurred without therapy (1). (They clearly would not have happened.) These were also extremely important positive changes that had occurred. A further change had occurred with regard to their perspective of themselves, in that this had changed to a much more positive and self-compassionate way of relating to their childhood and traumas experienced while growing up.

4.7.1.4 P4

Participant 4 reported at the point of the change interview that everything was going 'quite well'. The biggest changes they had noticed in themselves were feeling more in control of their thoughts and communication improvements in their relationship. They also felt that they had a better work–life balance and were more on track with university work. They reported no changes for the worse and said there was nothing they had wanted to change and had not been able to. They reported that they were neither surprised nor expected the changes which had occurred and felt that they would have eventually made these changes anyway regardless of the intervention and rated the changes as extremely important. Particularly helpful aspects of the intervention were the exercises between sessions, which they felt had kept them 'on track' with their goals. They had also found the anchoring exercises for stabilisation particularly helpful and reported that they had now been able to work their way

through a trauma narrative which previously they had been avoiding. The safe place was a particularly helpful exercise as they found it very grounding and calming when becoming triggered emotionally. P4 reported that unhelpful aspects of the intervention were that some of the exercises felt 'weird' at first (e.g. the 'leaf on a river' exercise) but that they got easier. They also reported that sometimes these exercises were not enough to calm them down, and in those times they preferred a SE technique such as havening or the safe place exercise.

4.7.2 Attribution for change

Regarding the changes experienced by the participants and their own attribution for their causes, P1 perceived the changes as very unlikely to have occurred without the intervention, were very surprised by them, and rated them as extremely important to them personally.

P2 perceived the changes as somewhat unlikely to have happened without the intervention. The changes were somewhat surprising to them, and the areas of change were rated as very important to them personally.

P3 perceived their changes as very unlikely to have happened without the intervention and extremely important to them personally, and they were very much surprised by the changes.

P4 perceived the changes as extremely important but they were neither surprised by nor expected the changes and felt that the changes would have been somewhat unlikely without the intervention.

Attribution from the participants themselves is clearly directed at the intervention, but as I conducted the interviews, this leaves the possibility of desirability bias effects due to my dual role of therapist and researcher. However, participants did offer additional areas of attribution for change as well as the intervention. P1 also felt that activities such as yoga and mindfulness were helping the changes, while P2 felt that changes in their perspectives were

active towards effecting the changes, in addition to the intervention. P3 also felt that a different perspective in general had helped their development, while P4 felt that the intervention sessions helped them to focus on the changes they already knew they wanted to attain and that the weekly tasks on behaviour change were pivotal in this.

What is difficult to know is whether the attribution for these additional factors influencing change can be independent of the intervention. For example, it is hard to know at what points perspective changed due to the intervention and ACT processes, thus influencing behaviours directly – e.g. for P1 to engage more in yoga and mindfulness due to commitment to actions that had been identified in sessions. As ACT processes occur and context changes internally, it may be difficult to ascertain accurately whether the 'new perspectives' can be attributed to the ACT intervention, especially as knowledge is additive, and hence once internal change or growth has occurred (for example, due to an intervention or new skill learned) it could be argued that the new internal process has become part of the individual and therefore has an intrinsic effect on responses and behaviour going forwards. However, the fact that participants did predominantly attribute change to the intervention cannot be dismissed entirely.

4.8 Framework analysis themes

4.8.1 Feeling safe

Part of this common thread that was apparent from the change interview responses was that all participants felt less threatened or overwhelmed and attributed the success of their emotional regulation in this regard to some form of SE or mindfulness exercise. It appeared to be a pattern that, when emotions were overwhelming or trauma was triggered, ACT's 'present moment awareness' (often seen as mindfulness) often did not help initially, but in these cases SE/psychosensory techniques – such as embodiment of a safe space, butterfly hug, dropping anchor or havening touch – were more effective in a moment of overwhelm. These techniques still fall under the triflex category of 'being present', but they utilise somatic

experience and bodily sensations (e.g. butterfly hug) to focus on the present moment rather than merely cognitions (e.g. leaf-on-a-river visualisation, which involves a cognitive effort of the imaginary action of placing worries on a leaf which is floating past).

In particular, the most frequently mentioned psychosensory technique was havening. This can perhaps be understood in reference to the literature citing havening in Chapter 1 and the theory that it increases levels of oxytocin when engaged in. As mentioned in Chapter 1, oxytocin has long been known to ameliorate stress in mammals (Panksepp, 1992; 1998), and its absence during development is known to detrimentally affect brain development (Tarrier, 2006, p. 100) with low levels during stressful times exacerbating negative effects of trauma. As mentioned in *1.9 Neuro-endocrinological factors of CPTSD*, Heim et al. (2008) found that oxytocin levels in cerebrospinal fluid were significantly lower in those with higher incidence of childhood trauma. If this imbalance is redressed, can trauma levels be improved and future negative effects of trauma ameliorated? In further consideration of literature regarding this, it can be seen that it also links to perceptions of self and the well-known calming effect that oxytocin has on the body could have increased in the participants by the use of the psychosensory technique of havening within the TF-ACT intervention (Uvnäs-Moberg et al., 2015).

Further understanding around the theme of improved sense of safety can be gleaned from the literature mentioned regarding the areas of the brain observed in predicting responses to ACT, namely the posterior insula region, otherwise known as the 'multimodal sensory region' (Kurth et al., 2010; Zu Eulenburg et al., 2013). Considering that trauma symptoms often involve the sufferer re-experiencing physiological trauma reactions which were present at the moment of the trauma, reliving them as if they were happening in the present again and momentarily dragging the past danger back, it begins to make greater sense that if ACT 'enhanced dispositional sensory awareness' (Burklund et al., 2017, p. 62), this might indeed facilitate the trauma survivor to engage with sensory awareness in the moment, reducing the

sense of threat emanating from the memory (both cognitive and visceral) of the initial trauma event. With regard to this re-experiencing of past trauma, a common additional comment from participants was that I had fostered a warm and safe space in which to conduct the intervention, which they considered an important aspect of it. This bears witness to the importance of the therapeutic relationship within the therapy space when working with trauma.

4.8.2 Behaviour

Each participant was able to discuss points of choice where different choices had been made in comparison to before the intervention. Specific tasks of taking valued action towards identified goals were mentioned by every participant, adding strength to the quantitative data, which demonstrated that in all cases valued action behaviours had increased. As mentioned, the goals of all participants were highly individual, but each could speak freely and with ease about at least some steps they had taken in service of their values.

Empowerment was also linked to increased behaviours in line with values. As avoidance was challenged in a titrated way, this seems to have led to increasing confidence in trying the difficult challenges, which were often linked to the values that were intrinsically important to each participant.

The changed behaviours can be understood in terms of the importance of committed action towards values, which is a core ACT process and refers back to the definition of PF as the ability to 'recognize and adapt to various situational demands; shift mindsets or behavioral repertoires when these strategies compromise personal or social functioning … and be aware, open, and committed to behaviours that are congruent with deeply held values' (Kashdan & Rottenberg, 2010, p. 467). Indeed, committed action appears to be central to developing PF, as can be tangibly seen in 4.5 Mid-way analysis. Where P1 was committed to taking small, measurable steps focused towards their values, P2 was less committed and

remained static in many of their behaviours, resulting in a decline in many areas. Only when P2 could be seen to be improving in their actual behaviours did improvements begin.

The value of committed action can also be understood in terms of literature around the efficacy of behavioural activation in the treatment of depression. Behavioural activation is grounded in learning theory and contextual functionalism and has been shown to be an effective intervention for clinical depression (see Hopko et al., 2003, for a review and see Ekers et al., 2014 for a meta-analysis supporting and strengthening the evidence base). ACT and behavioural activation therapy 'share the same central therapeutic aim of moving the client from an avoidant to an action-based lifestyle' (Hayes et al., 2016, p. 267). What became apparent during the course of the intervention is that, as committed actions were taken and movement towards desired goals began, so too did a change in internal behaviour begin. An awareness of unhelpful negative cognitions developed and choices were made by participants as to which internal cognitions and emotions were helpful in service of their values. Indeed, results showed that ruminative response levels decreased in all participants positively by follow-up. Although this is not a goal of ACT therapy, reduction in negative internal behaviours often occurs, and as a result there is a secondary gain of a reduction in clinical measures.

4.8.3 Perceptions changing

Something that was apparent from the interviews was the extent to which participants noticed a change in their internal perspectives. This can be understood partly by the influence of the core ACT component of 'defusion', which can be an essential part of beginning to address experiential avoidance. Participants spoke convincingly of seeing themselves differently, often with a less shame-based perspective and a less harsh inner critic. This added strength to the quantitative data, which demonstrated 'openness to experience' had increased, and added to the evidence that the intervention may have supported development of less rigid internal behaviour towards self (and others). This

internal change in behaviour is tangible evidence of an increase in PF. These revelations about shifts in perspective added depth to the understanding of the experience of the participants, in that it had not simply been an increase in behavioural exposure that had occurred but that internal behaviours had also changed. It appeared that these more flexible perspectives had opened the door to a more open approach to tackling difficult goals and challenges that were collaboratively set, and thus the openness-to-experience door could open wider.

There were a significant number of comments made about perceptions changing, particularly those of ‘anxiety’, ‘overwhelm’ or ‘sadness’. All four participants noted a change in their perception of these constructs of ‘suffering’, and each one had a different idea about what was their own personal cause of distress. For example, ‘anxiety’ was seen radically differently by two of the participants; P2 had been in a constant struggle with it, attempting to escape anxiety all of their life, and now that they had a change of perspective – that the anxiety was part of them, and that it had a positive function – they were able to let go (defuse) from the need to fight it and eradicate it. This enabled them to ‘sit with’ difficult trauma feelings when they arose and allowed them to pass by using SE or mindfulness or another choice of valued action. Any of these alternative responses seemed to empower them to move past the emotion without smothering it, and the changed perspective removed the need to fight it. Experiential avoidance then also decreased as the participant became more empowered, regulated and focused on hope for the future.

Considering that helplessness is a necessary part of the landscape for trauma symptoms to develop initially (see Figure 6), increased sense of self-control, including emotional regulation, could have led to more internal feelings of safety. As the likelihood of becoming overwhelmed internally reduced and coping mechanisms were developed, there seemed to be new-found safety and a sense of ease for participants. This change in compassion links in with neuro-scientific research which has found that the social brain displays high levels of

plasticity. Valk et al. (2017) conducted a longitudinal study employing MRI and found that, when participants were exposed to short daily CFT mental practices, there were huge increases in grey matter in the prefrontal areas of their brain. There was also a significant relationship to the cortex thickening and an increased ability to experience compassion. An additional observation was a significant increase in the grey-matter density of the temporoparietal junction, suggesting an increase in theory-of-mind ability, which, as mentioned, can be arrested as a result of trauma.

Although this intervention did not employ a direct CFT therapy approach, and self-compassion was not a measure considered by the study initially, it appears from the qualitative data that increases in levels of self-compassion were never-the-less noted by three of the participants as a significant change. On examining the literature post intervention it was found that indeed low self-compassion has been linked to the development of psychological disorders in response to life stressors such as exposure to trauma (Sharhabani-Arzy et al., 2005; Thompson & Waltz, 2008). It could be the case that, as a more accepting perspective of self and others developed, this impacted organically on levels of compassion. Strength of social affiliation levels has been linked to levels of compassion in individuals, and this link is interesting as a common result of trauma is isolation and social fragmentation. Yet, as is discussed below, social affiliation levels were seen to increase for all four participants, implying that increased PF leads to increased compassion levels, which could have facilitated more functional social behaviours and affiliations. Indeed, integration with others was another theme that emerged from the framework analysis, again as discussed below.

Compassion-focused therapy (CFT) was developed to rebalance affect regulation systems – threat, drive and soothing systems (Gilbert, 2000) – and the literature around CFT shows that increased self-compassion in an individual indicates that the person is operating increasingly within their soothing system rather than threat or drive systems. Theory around

CFT posits that the hormone governing the soothing system is oxytocin as opposed to dopamine for the drive system and cortisol for the threat system. An interesting way of understanding the results for increased compassion could be that oxytocin has increased in these individuals also. The question is, what has driven this increase in oxytocin? A possible explanation could be that the SE and psychosensory work has had a direct influence on oxytocin levels. As mentioned in Chapter 1, Panksepp (1998), Tarrier (2006) and Heim et al. (2008) acknowledge the ameliorating effects of oxytocin on stress and have linked low levels of oxytocin with exacerbation of the negative effects of trauma. There is also growing evidence that psychosensory techniques such as havening could be linked to production of increased levels of oxytocin in the body as a result of the soothing touch employed in 'havening touch'. I propose that the havening touch, when performed by the client on themselves, may elicit a physiological response which generates higher levels of oxytocin, reducing stress levels. Engaging in this level of self-care and self-soothing could be argued as perhaps embodying a more self-accepting attitude and taking action towards a more compassionate stance towards oneself – which is of course one of the first steps in developing the 'soothing system' (Gilbert, 2000) affect regulating system, which is also known to be governed by oxytocin.

Shedding further understanding on the increase in self-compassion after the remote ACT-based integrative intervention is a study undertaken by Yadavaia et al. (2014), who also found an increase in self-compassion as a result of an ACT intervention delivery. They offer an explanation, suggesting that ACT enables self-critical thoughts to be acknowledged without attachment, struggle and rejection, with self-kindness, focusing on abandoning self-invalidating efforts at emotional control in favour of compassionate acceptance. This seems plausible, and I suggest that, additionally, self-as-context work may be a crucial part of this process. For example, acknowledging and understanding different parts of self and needs of these parts enables a diffusion not only from cognitions but also of self-concept. Hence self-

judgement dissipates in the light of acknowledging a changed context of the role a client chooses for these inner parts (formed by our past).

4.9 Integration

As mentioned above, integration was an emergent theme of framework analysis. Integration of self came up as a benefit of the intervention, as well as improved social integration within personal relationships and wider social groups. Also, integration of various aspects of life was identified as improved, such as work–life balance.

This was interesting when recalling the consensus of a recommended three-phased approach (Herman, 2015) to trauma treatment, the three phases being:

1. stabilisation
2. trauma processing
3. re-integration.

Re-integration is the final stage of trauma treatment and is often perceived as re-integration with life, but actually there may be a mirrored process of internal re-integration needed as well as external integration (Fisher, 2017).

Fisher (2017) comments on her work with many trauma survivors who were resistant to treatment, only to find that a unifying factor which repeatedly enabled healing was when they developed self-compassion. Fisher also speaks of the internal fragmentation which is often present in trauma sufferers and how, when the individual is able to accept different internal parts of themselves, this contributes greatly to self-acceptance and reduces the ‘inner war’ that wages. I postulate that another contributing factor to increased self-compassion in this study could be the ACT interventions of externalising various inner parts of the participants, who may also have been experiencing inner fragmentation. This specific ACT intervention involves naming and describing an externalised imagined character to represent the most

difficult emotions and thoughts with which the participant is struggling. What follows then is a facilitated dialogue between the participant and their inner part (or 'passenger on the bus'), the purpose of which is to determine the intention and needs of that internal part. A negotiation then takes place between the two to determine what the part needs to be fulfilled and what the participant needs in order to follow their valued goals. This exercise often leads to a deeper recognition of the participant's conflicting inner needs and also gives a platform to plan different reactions to the difficult emotions and feelings in future. This ACT intervention allows integration of different and often conflicting internal aspects of the trauma survivor. The act of naming the part and identifying its needs and intentions gives further 'self as context' and places the individual as the 'driver of the bus' rather than the one being driven by the parts. Indeed, after doing this exercise, three of the participants in the current study reported tangible improvements in their communication with others, that their relationships had improved and become more honest, authentic and harmonious, or that their levels of social interaction had improved. All of these aspects had led to their improved integration into society.

4.10 CPTSD cluster relevance

As one of the aims for this study was to examine effects on trauma symptoms, it was of interest to determine whether the three additional strands of CPTSD, which are all severe and persistent, would alter due to the intervention. There are assumptions around CPTSD that it is particularly difficult to treat and requires long-term work to be effective. The symptoms cluster for CPTSD are: 1) problems in affect regulation; 2) beliefs about oneself as diminished, defeated or worthless, accompanied by feelings of shame, guilt or failure related to the traumatic event; and 3) difficulties in sustaining relationships and in feeling close to others. Interestingly, each of the symptoms can be seen to have been influenced by the data presented, indicating that this intervention does address CPTSD-specific issues. Indeed, the CPTSD measure data was analysed by the RCI as showing a reliable decrease in all symptoms of CPTSD for P1, P3 and P4. The qualitative data adds a richness of

understanding to this as the themes that came up can be linked to the clusters, as can be seen from Table 17.

Table 17
Themes in relation to CPTSD clusters

CPTSD cluster symptoms (ICD 11)	**Themes identified in framework analysis**
1. Problems in affect regulation	Improvements in feelings of **safety,** and ability to regulate physiological and emotional responses to traumatic intrusions, cognitions and triggers. **Behaviour** included changes in behaviours related to reacting to traumatic triggers- choosing to use new skills in order to self-regulate. **Coping better**
2. Beliefs about oneself as diminished, defeated or worthless, accompanied by feelings of shame, guilt or failure related to the traumatic event	**Perceptions changing**, including increases in self-compassion and self-worth, reductions in self judgement. Acceptance of the past. **Behaviour** involved internal behaviours of interacting with aspects of self, in order to negotiate new perspectives, and arrive at a new order of belief. Conscious choosing of values to focus on.
3. Difficulties in sustaining relationships and in feeling close to others	**Integration** had improved in relationships with partners, friends and social behaviours had increased. **Behaviour** – choosing to engage in idiographic, difficult tasks related to each individual's specific valued goals. Practising learnt techniques to face towards difficult situations in service of personal values.

As is shown in the table, there is some clear relevance to the themes alongside the CPTSD cluster. Of particular interest is that behaviour maps onto every single cluster, seeming to be an overarching change theme which fits with all the symptom types in the cluster.

4.11 Attrition and improving access to therapy

Attrition had an impact on the study, with two of the six original participants dropping out of therapy. One gave the reason of not being ready for therapy and the other gave the reason of having too many stressors currently in their life, which prevented them from committing to

therapy. This high attrition rate of 33% can be understood in the context of the literature explored in Chapter 1 regarding those who are affected by trauma not accessing therapy easily, particularly if there are current stressors exerting influences in their lives. This is part of the reason why this study was seen as important in order to explore provision of an easily accessible intervention that could be delivered remotely, increasing attendance and reducing factors that can be seen as hurdles for individuals who have experienced trauma. So, although attrition was always a potential risk and limitation of this study, one possible explanation for it is the nature of trauma, in that it often has effects that go on to affect an individual for a lifetime (Cicchetti & Toth, 1995; Bellis et al., 2014; Felitti et al., 1989, Van Der Kolk, 2009). Bryant (2019) argues that most people experiencing PTSD do not access therapy, and states that one of the major challenges in addressing management of PTSD is the scaling-up and dissemination of affordable evidence-based interventions. It is hoped that this study will add to the discussion and innovative development of future, more accessible interventions for trauma sufferers.

4.12 Diagnostics for PTSD

The PTSD subscales represent three symptom clusters: re-experiencing in the here and now, avoidance and functional impairment. According to the ITQ, in order to be clinically identified as suffering from PTSD, it is necessary for a participant to score for Question 1 or Question 2 – representing criteria for 're-experiencing in the here and now' – an answer which is ≥ 2. Two of the participants in the current study scored as low as 1 for these questions, which would mean clinically that they would not have been diagnosed with PTSD, even though other cluster scores were very high. In fact, when the two non-clinical-PTSD-scoring participants went on to complete the CPTSD subscale for trauma, they both scored almost maximum points in all symptom clusters, so it can be concluded that it is possible to be faced with a client who has extremely high scores for the other subscales in the ITQ – avoidance, current threat and functional impairment – which might be causing a lot of distress, but as they are not re-experiencing such stressors in the here and now, they would

not qualify for trauma therapy. This could be due to them subconsciously engaging in coping mechanisms of dissociation (and there is not sufficient space to explore this fully here), yet it points to the fact that care must be taken when deciding cut-off points for treatment and when categorising trauma sufferers. In light of the results of this study, it should be considered that individuals who consider themselves affected by past trauma, even if not meeting diagnostic criteria, should be considered individually case by case for transdiagnostic treatments such as ACT-based integrative therapy.

4.13 Counselling psychology and wider implications

This study propounded important contributions to the field of counselling psychology. By addressing this 'problem topic' in this underserved population (Corrigan & Hull, 2015; Orben et al., 2020), as evidenced by national statistics and the research literature gaps, counselling psychology as a discipline leads the beginning of dialogue in this area. When dialogue is then supplemented by scientific and empirical investigation, as with this study, it becomes possible to place this much understudied field of trauma solutions in young people at the forefront of current research.

This study is the first in the psychological literature to investigate a remote ACT-based integrative intervention for young people. During recent years, as the world has experienced a pandemic and youth has been forced to grow up under threatening circumstances such as it has never before experienced, it has never been more pertinent to understand the effects of trauma, particularly on our youth.

Therefore, this research holds important counselling psychology implications. Although it is not uncommon for counselling psychologists to work with trauma sufferers, there are many trauma survivors in the general population who never seek treatment. This is understandable given that most trauma survivors may be put off the idea of therapy, assuming that entering therapy would involve confronting the trauma verbally and emotionally, which could

potentially be re-traumatising in itself. Also, the dropout rate for trauma therapy is high, and experiential avoidance can be problematic, coupled with an unwillingness or inability to tolerate exposure therapy (Ramirez, 2021).

Meta-analytic reviews of the treatments that are seen to be effective, such as CBTs, have strong pre-treatment-to-post-treatment effect sizes, with 67% of participants not meeting criteria for PTSD after therapy (Bradley et al., 2005), yet a third of participants are unresponsive to these treatments and there are additional problems with treatment refusal and therapy dropout rates (Bradley et al., 2005; Schottenbauer et al., 2008). This reluctance to enter or remain in therapy is understandable when the nature of trauma symptoms includes re-experiencing the trauma in the here and now, not just in a cognitive or emotional sense but also in a physiological one. This can be understood in terms of SE theory (Levine, 1997; Payne et al., 2015) and how activation of the trauma engages a fear-and-survival response. Consequently, when trauma is present, so is fear, and along with that come high levels of EA. Sometimes even a fear of thinking about the trauma is enough to trigger the trauma response and place the individual back in a feeling of helplessness and intense threat. However, this then leads to a cycle of further avoided circumstances and the dysfunctional state of being where fears are never challenged. For example, P2 remained experientially avoidant internally about their visa not being renewed, fearing the consequence of not being able to stay in the country to finish their degree, and thus the mere thought of the visa was pushed from their mind continually. Their intense fear of the outcome was too much to tolerate, so instead they avoided it entirely. The result was that their inaction in failing to think about it meant that their potential actions in dealing with it were impossibly far away from their reach. This inaction and external EA was involuntarily, but it was in a practical sense leading them towards their worst fears of deportation.

It is hoped that counselling psychologists can draw upon the understanding gained in this study to enhance their professional practice around trauma-informed clinical work. The study

also opens up potential new avenues for researching trauma-focused therapies. These two implications are discussed further below.

4.13.1 Implications for professional practice

The findings from this study carry a host of implications for professional practice. The first is that it has been shown that remote TF-ACT can be engaged upon successfully and with a high level of acceptability. Therefore, it can be argued that it has been shown that a short-term remote ACT-based integrative approach can be efficacious and have lasting effects for trauma sufferers who have tried other therapies unsuccessfully. Often, trauma therapy is presumed to be a lengthy undertaking, and this coupled with fears of re-traumatisation can cause a shying-away of counselling psychologists from working with this population. This study has shown that six sessions is sufficient to engender significant and reliable change, not only in PF and trauma symptoms but also in effecting improvements in many other areas for the participants, such as QOL, PTG, rumination levels and emotional regulation. Therefore, it should encourage counselling psychologists to feel confident that lasting change can be attained in shorter-term therapy work.

4.14 Therapeutic relationship in trauma work

A recurring comment from participants was that the therapist had created a warm and safe space for the therapy to take place in – a crucially important aspect for this population. As counselling psychologists, we hold a key value of being orientated towards empowering and respecting our clients, and of ensuring our therapeutic work involves engaging in non-hierarchical relationships in order to show a welcoming and deep respect of the 'other' (Henton & Kasket, 2017, p. 135). This is particularly important when working with trauma, a fundamental aspect of which is the disempowerment and helplessness that accompanies it. This study reminds us that it is of paramount importance that the therapeutic relationship is a safe place for the trauma survivor in order to prevent re-traumatisation, to encourage

attendance and to foster safe titration of intense, difficult emotions. The therapeutic relationship is key in trauma work and was a key element of this study.

4.15 Is trauma content necessary for therapeutic change?

Another implication for professional practice is regarding the necessity (or not) of trauma content during therapy. Much of the trauma-focused work in the study was content free and was addressed through SE techniques and referral to the emotions rather than to the actual traumatic event (although P4 had specifically requested to do some completion work on their trauma narrative, which they had begun some years before and which was never completed, and so this was accommodated and facilitated). This meant that participants' emotions could be acknowledged, validated and facilitated so that they could become 'unstuck' and move through them in a somatic manner, removing the need to talk in detail about the events with possible re-traumatisation attached. SE and psychosensory approaches facilitated this, and therefore this study has demonstrated further that trauma content is not always necessary in order to process the difficult emotions attached to the trauma. It is important to remember, however, that for some trauma survivors the narrative itself and the ability to share it with someone can be seen as the most important and healing aspect of therapy. For some individuals, the 'sharing of the story' and the act of 'having a voice' and being heard becomes the healing factor; for these individuals there is much value in relating some detail and content to others. Having a witness to their suffering will be important to them, and they may need to revisit and relive the event with 'another' verbally. With this in mind, having options to work with or without trauma content is key. Giving this choice to trauma sufferers is pivotal in re-empowering them to choose how they want to heal, and in itself is part of the trauma-healing process. When we experience an emotional hijacking (Goleman, 2009) it can feel as if choice is taken away, particularly for a trauma survivor. Physiological responses can jolt them back to the traumatic event as if they were there again in person, evoking all the terror and threat in the present. In the moment of reliving the trauma, a feeling of helplessness is often present; indeed, an inescapable threat is a feature of the landscape

required to create a trauma response (Ruden, 2019). See Figure 38 for an illustration of a moment of encoding of trauma.

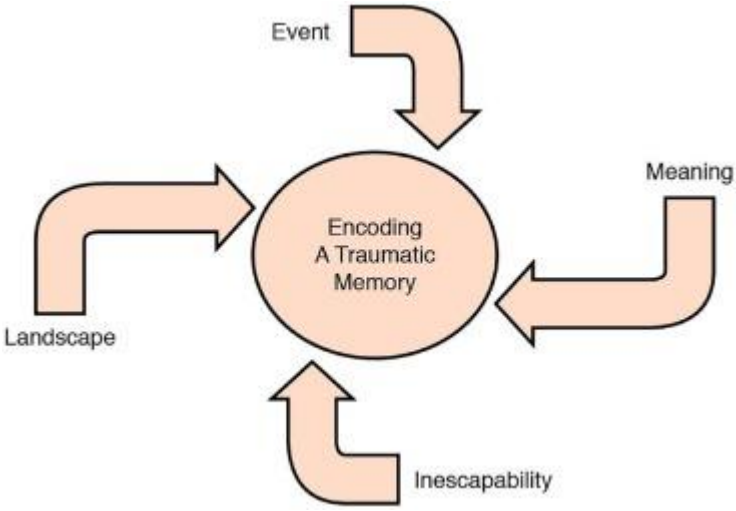

Figure 38. A moment of encoding of trauma (Ruden, 2018).

By altering the perception of this inescapable terror, the revisiting of the trauma can begin to be able to be tolerated, to be faced up to and survived through. The only way to engender empowerment is to help the trauma survivor to see that there are choices, that there IS a way through, that they CAN face the internal pain and survive by choosing to use emotional regulation techniques. Fisher (2017, p. 48) also agrees that content is not the only way to work with trauma. She states in regard to a new approach to trauma treatment

> What is different is that the therapist no longer has to be focused preferentially on becoming a witness to the client's narrative regardless of its effects on his or her symptoms and stability. Instead, the trauma therapist's job is to create in the therapy hour a neurobiologically regulating environment that enables the client's nervous system to experience greater safety and therefore an expanded capacity for tolerating both past and present experience (Fisher, 2017, p. 48).

I propose that when a trauma survivor gains ability to tolerate emotions and thus increased volition and empowerment in the presence of difficult emotions, that this ability to then direct internal behaviours towards personally chosen outcomes (e.g. I can remember the event without becoming overwhelmed, without freezing and without allowing anger to control me) this then becomes the first step in 'escaping the inescapable'. It becomes the first step in their ability to step outside the helplessness , and an important step towards reclaiming the self and re-integration. Therefore, helping the trauma survivor to see their choices and being a catalyst to increasing their empowerment is an essential part of trauma work, and giving them the choice to work content free is a necessary offering to avoid retraumatisation.

4.16 Reduction in vicarious trauma

The finding of the apparent efficacy of using SE and psychosensory techniques integrated into TF-ACT has implications for the well-being of trauma therapists. Havening in particular was mentioned five times by three of the participants in the change interview.

Counselling psychologists working with trauma survivors are particularly vulnerable to vicarious trauma; indeed, those working regularly with trauma are at increased risk of suffering vicarious trauma, burnout and compassion fatigue. Vicarious trauma has been defined by Pearlman and Saakvitne (1995, p. 31) as the 'negative effects of caring about and caring for others' and as comprising the 'cumulative transformation in the therapist's inner world resulting from empathic engagement with the client's traumatic material', where the therapist is exposed to 'horrific descriptions, both as witnesses of people's cruelty to one another and as witnesses and participants in the re-embodiment of these events' (Pearlman & Mac Ian, 1995, p. 2). Vicarious traumatisation (VT) has a cumulative effect and its influence permeates beyond treatment sessions, affecting the therapist's personal life (Moulden & Firestone, 2007). It seems that all therapists are vulnerable to VT, but at particular risk are those working with clients who themselves are trauma survivors and those working in ongoing traumatic environments such as war zones and natural disasters.

Aafjes-van Doorn et al. (2020) surveyed 339 therapists about their clinical practice and experiences during the pandemic (which, as previously discussed, can be recognised as a trauma inducing stressor). Their results showed that therapists on average experienced moderate levels of vicarious trauma, whereas about 15% experienced high levels of vicarious trauma. Although the mechanisms behind development of VT are not fully understood, Rauvola et al. (2019) explored the constructs when conducting a review of the literature, defining the umbrella term 'empathy-based stress', which encapsulates vicarious trauma, compassion fatigue and secondary traumatic stress. They concluded that empathy-based stress can be understood and indeed mitigated by employing a number of models, namely experiential perspective, resiliency perspective and the fatigue etiological perspective. Without delving too deeply into each of these perspectives here, it is important to have a context for the process of VT development and to see where working as a trauma therapist in a content-free way; utilising instead a more SE or psychosensory method of the client acknowledging and working through trauma in a titrated way may alleviate risk of VT for each of these models.

If the therapist has not heard the whole detail and content of a trauma, they cannot revisit the event; they have a 'missing link' to the cognitive and emotional event. With detail and content not being present in the therapist's memory, they cannot access the traumatic event between sessions. Yes, a therapist can remember how upset a client was in a session; they can still 'be present' in the moment and encourage mindful acceptance of difficult feelings and share the emotional experience in a real, deeply respectful and profound way; but the extra lens of their own values, pain and perspective never enters into the trauma, thus it cannot magnify meaning or add layers of additional meaning onto the suffering already experienced by the trauma survivor. It does not mean a therapist will remain untouched or unaffected by an emotional expression that does not share content, but it does mean that a crucial step which is acknowledged as a necessary part of VT development, namely 'empathic engagement with the client's traumatic material'. This development simply cannot

take place, as the traumatic material is no longer the main and singular focus of the work and becomes an absent part of the VT puzzle. I propose that the ability to work content-free with trauma reduces the therapist's experiential trauma, increases their resilience as a therapist and consequently reduces fatigue and VT effects in their personal life, as well as increasing their capacity to continue working safely and effectively with trauma. See 4.20 Reflexivity statement for further comment on this.

4.17 Strengths of the study

Treatment integrity has important implications for the validity of the inferences drawn about any obtained effect of a study. Despite the methodological necessity of treatment integrity having long been recognised, few studies adequately implement treatment integrity procedures (Perepletchikova et al., 2007). Perepletchikova et al. called for a re-evaluation of guidelines for implementation of treatment integrity procedures after reviewing influential psychological and psychiatric journals for RCTs of psychosocial interventions. The interventions were reviewed and coded for treatment integrity implementation and results showed that treatment integrity was addressed by only 3.5% of the RCTs evaluated.

A palpable strength of the current study is the fact that the delivered intervention underwent fidelity testing, achieving an ACT consistency score of 34.5/36 and a mean ACT inconsistency of 0/30. A median item rating of 3/3 was achieved, indicating 'therapist consistently enacted ACT-congruent behaviours'. Therefore, any inferences about the results obtained can be recognised as benefiting from increased internal and external validity as a result.

4.18 Limitations of the study

There were some limitations due to opportunity sampling methods, being focused mainly towards university students via the blanket email which was sent out. The initial email, although aimed at all psychology undergraduates, led to a sample which was heavily

weighted towards caucasian female respondents (psychology is a subject which is noted for being more heavily subscribed to by females). The sample then was not as diverse and inclusive as I would have ideally desired. However, this also reflects another phenomenon within counselling psychology – too in-depth a subject to address adequately here – which is the reduced 'help-seeking' which seems to be a factor both for males and for cultural and ethnic minorities. Also, the online advert was disseminated during the COVID-19 pandemic, when foreign students who wished to continue studying were often required to remain in the country of study (the United Kingdom), which may have been a contributory factor for the lack of UK participants. Interestingly, however, all the remaining participants were not UK residents and all came from different continents and countries throughout the world. Whereas some UK students were allowed to continue studying online and from their homes in the UK, so that they would have had more social support with potentially family and familiar surroundings to continue online study, more foreign students would have been staying in student accommodation in university 'bubbles', although this meant that, for their first year during the COVID-19 pandemic, they had no social support or familiar environment and they may have been more likely to reach out for psychological support, and indeed to have been more in need of it than the UK students who were studying from home. This could have been an influence in the lack of UK respondents at the time.

Another limitation of the sampling method which must be noted is that the population was not necessarily actively seeking help when they received my blanket email which they chose to respond to. This has implications for the limitations regarding generalisability of the results to a help seeking sample and must be taken into account.

It could be argued that, as I played a dual role of both therapist and researcher, this might have influenced demand characteristics of the study. However, I routinely asked participants to provide a score at the end of each session indicating how useful it had been for them, encouraging them to be honest about feedback. These scores ranged from 7/10 to 10/10,

with those scores of less than 10 showing that the participants felt free to express lower scores to me directly. This goes some way to providing evidence of the absence of a demand effect.

Finally, there were potential limitations to be acknowledged around being restricted to online therapy only. Békés et al. (2021) found that therapists at the beginning of COVID-19 were concerned about four aspects of online therapy: emotional connection, therapist boundary, patient privacy and distraction. However, they found that, as therapy progressed during the pandemic, these concerns significantly decreased as therapists and clients adjusted to the new way of working. Wentzel et al. (2016) had already identified benefits of working online as part of a blended care approach in mental health even before the pandemic began, including supporting clients between face-to-face sessions by encouraging opportunities for self-management and continuity of care. This blended online and offline approach rendered positive outcomes, making it a good alternative to regular face-to-face treatment. However, few studies have directly compared online therapy to the face-to-face equivalent.

4.19 Recommendations for future study

Although the study met high standards of ACT-congruent behaviours, there was no separate analysis for frequency of SE techniques used. Future studies employing TF-ACT would benefit from additional monitoring of frequency of these somatic techniques as, although the current study was ACT-congruent – particularly in terms of bringing the client into the present moment and slowing down physiological responses in order to facilitate regulation of emotional responses – it would be useful for future studies to explore the proportion and frequency of techniques used that specifically employed psychosensory or SE elements in future, with regard to exploring if there might be a correlation between somatic techniques used and efficacy.

One recommendation for future studies would be a replication of the current study with an extension of the period of data collection, to explore if longer-term effects are maintained. Another recommendation would be to explore further the implication of the SE and psychosensory element of the remote ACT-based integrative intervention. As this was clearly an efficacious intervention which was also faithful to the ACT model, it would also be helpful to elucidate further specific mechanisms that added to the ACT approach in a trauma-focused way, thus enabling understanding of specific intervention techniques which may have been particularly helpful in improving trauma coping skills in the individual.

I intend to produce a manual for the use of closer replication of this study, although recognition must be made that the delivery of content was non-linear and dependent on the individual need and preference of each participant. In fact, I consider that a large part of the success of this intervention lies in the non-protocol delivered content. Each participant guided the therapeutic intervention by their individual values-led goals. This proposed manual has not yet been published at the time of writing.

4.20 Reflexivity statement

Having first trained as a body therapist (shiatsu practitioner) before retraining in psychology, I have always been focused on the body–mind connection and the intrinsic link between our thoughts, emotions and physiology. This has coloured my approach to being aware of the whole person rather than just their psychology and the cyclical effect this can have on our experiences.

4.20.1 Reduction in vicarious trauma and burnout

As the fields of neuroscience and biology add to understanding of psychology, I have seen even more illumination on how thoughts, emotions and physiological reactions interplay within an almost immediate interactive cycle. The role of the body in response to trauma reactions cannot be ignored. In fact, it brings to the fore the importance of working with the

body as well as the mind. To address only one of the two is equivalent to giving couples therapy to only one person in a relationship: a level of understanding can be gleaned and perhaps some growth and development, but by working with both members of the relationship a much fuller understanding can be obtained. Likewise, when working with both the body and the mind, a sense of how the organism works as a whole can be gained, as well as more meaningful, appropriate intervention and hopefully deeper, more lasting change.

I also felt the benefits of working with the body regarding trauma in that I noticed that it was easier for me to be present in an emotionally supportive way for my clients without having to relive the details of their trauma. It is one thing to support someone who is experiencing difficult emotions, and that in itself takes a certain emotional commitment and transferral of energy between client and therapist, but if the psychotherapist is also exposed to hearing and visualising details of a recounted reliving of traumas, this places them in a much more vulnerable position. During COVID-19, two of my own family members became very ill, and over the course of 18 months I was caring for two terminally ill loved ones and lost them both. The helplessness of not being able to visit loved ones in hospital felt intolerable. My own helplessness and distress was severe, made worse by the fact that no family members at all were allowed to enter the hospitals. The restrictions around funerals during the COVID-19 pandemic also had a profound effect on my family's ability to grieve. Numbers were restricted to 30 in a church and 18 at a graveside. With even the process of grieving severely affected, this personal trauma had its own inevitable effect on me, undoubtedly leaving me suffering my own complex grief. I continued to work as a psychotherapist through this time, however, carefully screening my clients in order that their issues would not be ‘too close to home’. The importance of self-care (Barnett et al., 2007) was at the forefront of my mind at this time, and yet also I knew my clinical work was keeping me going, giving me purpose, a sense of occupation and meaning to my life. I also continued to study full-time for my doctorate, which involved continuing with my research delivering a trauma intervention, as

the completion of my doctorate was an extremely important thing both to me and to my lost loved ones. Combine with this, the ongoing COVID-19 pandemic delivered to me a fair share of traumatic experiences.

My point about the personal trauma I was undergoing is that, through working largely content-free and using psychosensory and SE approaches, this allowed me to be present physically and emotionally without the direct sharing of traumatic memories from my clients to me. I feel that this greatly reduced the vicarious trauma I might have otherwise suffered, which might have pushed me over the edge in my own dealings with my personal life. It allowed me to work in a deep and meaningful way with the personal experience of the participants, in an immediate and individually tailored way with each of them, yet it maintained a distance between myself and the details of their own trauma. There were times when some of their narratives were shared, but it felt titrated and manageable to me. It is fascinating to me that I never suffered burnout throughout the COVID-19 pandemic, despite my personal traumas, and I put this down to the fact that I was able to work deeply and 'in the moment' with the participants' experiences without cognitively 'going there' to the trauma with them. This meant that after a session, although I had been exposed to emotional distress, I had been able to teach techniques to the participants to empower them to regulate their own emotions, which was also empowering to me as a therapist. And the benefit from me not knowing many of the details and content of their trauma meant that my cognitions had fewer direct 'memories' to access and revisit between sessions. I was not reliving *their* trauma between sessions because I did not have the cognitions and memories to enable this. I am not advocating that a complete absence of content is necessary for working safely with trauma – in fact, sometimes with a hotspot of trauma it is necessary to focus in with detail in order to access the SE from that moment – but knowing that trauma can be worked with effectively and largely content-free in the majority of cases certainly widens the ability of the therapist to work with greater protection from vicarious trauma and is also likely to be a strong protective factor against burnout.

As a trainee counselling psychologist, I feel that, when working with a trauma survivor, failing to work with their body experience alongside their psychological experience is failing them, failing counselling psychology as a field and failing ourselves as counselling psychologists. Even though the mechanisms by which psychosensory and SE techniques operate are not fully understood, we can nevertheless see that, when the body is included in active therapeutic work, the positive results and benefits to the therapist are apparent.

4.20.2 Study impact

I am now employed as a trauma therapist within a child trauma service in the UK which is part of a secondary care organisation providing psychological support to children experiencing trauma. I have been presenting the findings of this study with the dedicated trauma team and with the wider organisation in order to enhance understanding of effective trauma-informed care for children and young people as well as for their families, encouraging a holistic approach towards providing for their specific trauma needs as well as a sensitivity towards the challenges and helplessness that the family of a traumatised child may also experience. For example, I now prepare and deliver trauma information sessions for parents of child trauma survivors. I have also incorporated knowledge learned from this study when compiling content for an experiential parent group which informs families of learnable and teachable skills, and I have also compiled and delivered a group trauma intervention for children that encompasses SE and psychosensory techniques. Thus when a child is on the waiting list for trauma therapy, families can already be implementing strategies to help regulate emotions and stabilise children even before they begin therapy.

I intend to continue engaging in writing about this topic in the hopes that discourse will become enlivened around the subject of trauma therapy provision and that ultimately more support may be garnered for young people and children who have experienced trauma. I have recently created a non-profit organisation which will be the first organisation to offer trauma therapy to children in its catchment area, and I hope that the knowledge from this

study and the wider field of trauma counselling psychology will fuel support for this social enterprise as I endeavour to promote knowledge about the complexities of trauma and increase support for this underserved population.

4.21 Conclusion

Using an ACT-based integrative approach enabled participants to identify a pathway that was intrinsically valued by them. It increased empowerment and reduced the helplessness that had previously left them feeling overwhelmed and frozen in their lives. Once they had taken some steps on that pathway within therapy, and had clearly seen outcomes that they would ideally prefer to see themselves travelling towards, this made the work more tangible and translatable to their lives outside of therapy. Gradual behavioural change in the direction of intrinsically valued action led to more integration and social connection in general, which in turn had a positive impact on the participants' reclaiming of their lives and their whole selves.

Understanding the multi-faceted, complex nature of trauma, its effect on the body and mind of young people, and being open to different effective ways of working with trauma is critical considering the detrimental long-term effects trauma can have on youth. Hidden trauma in particular, in relation to developmental/relational issues in childhood as well as racial trauma experienced by marginalised groups and ethnic minorities, can be a damaging shadow which is too frequently not addressed sufficiently either within research or through clinical provision. This study therefore attempted to bridge some of this gap in the literature by setting out to explore whether the transdiagnostic approach of ACT-based integrative therapy could improve PF in a help-seeking population who would otherwise have not been diagnosed yet were experiencing trauma symptoms, in the hopes that the knowledge gained might help other help-seeking young people experiencing trauma symptoms.

This study has generated empirical evidence of both a quantitative and qualitative nature, which has several benefits. Firstly, it challenges the assumption that diagnosis accurately identifies those who need support and argues for a changing paradigm regarding trauma to one that wholly encompasses the total life experience of the individual rather than just a single event – for example, the taxonomy put forward by Kira (2022). Secondly, it challenges the assumption that trauma therapy must be face-to-face and long-term in order to reap any benefits for CPTSD and to avoid re-traumatisation. Thirdly, it has illuminated the potential effectiveness of a remote ACT-based integrative approach which, by encompassing SE and psychosensory techniques as an intrinsic way of working with the body as well as the mind of trauma survivors, offers a more holistic and complete efficacious treatment which enables young people to piece together fragmented minds and bodies caused by trauma. This journey towards a more whole and compassionate sense of self can take place remotely and in a matter of weeks.

The field of counselling psychology has an important role to play, not only in the provision of safe, individually tailored therapy towards an integrated wholeness, psychologically, physiologically and socially – which is part of its core philosophy – but also by highlighting a need to address current paradigms and perceptions around trauma. This study therefore offers a fresh approach which addresses all aspects of a trauma survivor, placing emphasis on the importance of developing emotional and physiological regulation as being of equal importance, in order to re-empower young people to reclaim their whole self and journey towards their best, integrated, ‘chosen’ life.

Appendixes

Appendix 1: Change interview

Semi-structured interview schedule – Taken from 'the change interview'

(Elliott, Slatick, & Urman, 2001)

Hour-long interview schedule to be conducted post-intervention

1. How are you doing now in general?

2. How has the ACT therapy been for you so far? How has it felt to be in this therapy?

3. What changes if any have you noticed in yourself since ACT therapy began? (For example, Are you doing, feeling, or thinking differently from the way you did before? What specific ideas, if any, have you got from therapy so far, including ideas about yourself or other people? Have any changes been brought to your attention by other people?).

4a. Has anything changed for the worse since you started ACT?

4b. Is there anything that you wanted to change that hasn't since therapy started?

5a. For each change, please rate how much you expected it vs. were surprised by it? (Use this rating scale:)

(1) Very much expected it
(2) Somewhat expected it
(3) Neither expected nor surprised by the change
(4) Somewhat surprised by it
(5) Very much surprised by it

5b. For each change, please rate how likely you think it would have been if you hadn't been in ACT therapy? (Use this rating scale:)

(1) Very unlikely without therapy (clearly would not have happened)
(2) Somewhat unlikely without therapy (probably would not have happened)
(3) Neither likely nor unlikely (no way of telling)
(4) Somewhat likely without therapy (probably would have happened)
(5) Very likely without therapy (clearly would have happened anyway)

5c. How important or significant to you personally do you consider this change to be? (Use this rating scale:)

(1) Not at all important
(2) Slightly important
(3) Moderately important
(4) Very important
(5) Extremely important

6. Attributions: In general, what do you think has caused these various changes? In other words, what do you think might have brought them about? (Including things both outside of ACT therapy and in therapy)

7. Helpful Aspects: Can you sum up what has been helpful about your ACT therapy so far? Please give examples. (For example, general aspects, specific events)

8. Problematic Aspects:

8a. What kinds of things about the therapy have been hindering, unhelpful, negative or disappointing for you? (For example, general aspects. specific events)

8b. Were there things in the ACT therapy which were difficult or painful but still OK or perhaps helpful? What were they?

8c. Has anything been missing from your treatment? (What would make/have made your therapy more effective or helpful?)

9. Suggestions. Do you have any suggestions for us, regarding the research or the therapy? Do you have anything else that you want to tell me?

Appendix 2: Participant information sheet

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ACT research information

Welcome

We would like to invite you to take part in a research study. Before you decide whether you would like to take part it is important that you understand why the research is being done and what it would involve for you. Please take time to read the following information carefully and discuss it with others if you wish. Ask us if there is anything that is not clear or if you would like more information. You will be given a copy of this information sheet to keep.

We are currently carrying out research to identify if acceptance and commitment therapy (otherwise known as ACT) is an effective remote therapy intervention for young adults. Research such as this has the potential to inform therapeutic approaches to help every individual towards feeling happier and less stressed during particularly stressful times in a way that feels tailored personally.

We are only able to carry out this research with the help of young people aged 18-25 and we would be very grateful if you were able to offer some of your time to help us. Below is a short summary of therapy we are trialling. In addition, we would also ask you to fill in a consent form to be emailed via Qualtrics giving consent for yourself to take part in this research.

Thank you!

Mary Doran

Mary Doran (Lead Researcher)
Tanya Lecchi (Academic supervisor)
Department of Psychology
City University London

Ethics approval code: **ETH1920-1816**

Contents

2. **What do I have to do if I take part?**
3. **The purpose of the study:**
   - What is involved in acceptance and commitment therapy? (ACT)
   - Who can take part?
   - What you get in return
   - What we are measuring
   - Risks and disadvantages
   - Benefits of the research
4. **Safeguarding & confidentiality**
   - Before the study
   - Throughout the research
   - After the study
   - Reporting findings
5. **Further information**
   - What happens next
   - To take part
   - Contact information
   - Data privacy statement
   - Problems or concerns
6. **Data privacy statement**

What do I have to do if I take part?

If you want to take part, it will involve:

1. filling out some questionnaires weekly for 3 weeks before beginning the therapy. Completing them is straightforward as you will receive an email each week with a link which takes you directly to the measures to fill them out and this should take about 20 minutes. This is useful because it sets up your score so we can tell if the therapy was helpful at the end (your scores are kept confidentially and anonymised and it is all done over secure internet links.)
2. Committing to 6 weekly hour-long sessions of therapy (with the online questionnaires also completed before each session). These are online sessions over zoom or over the telephone if zoom is not accessible.
3. Completing some additional questionnaires on 3 occasions throughout the therapy. At the beginning middle and end and 1-month post intervention. This will take approximately 30 minutes.
4. Taking part in an interview lasting approximately 1 ½ hours at the end of therapy so that we can see exactly what was helpful or unhelpful for you. This can be agreed to be a time to suit you and can take place anytime up to 2 weeks after the final therapy session. This can be conducted either over the telephone or over zoom at your preference.

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The purpose of the study

What is involved in acceptance and commitment therapy? (ACT)

Act has been shown to be beneficial for young people in improving various symptoms including anxiety, depression, and trauma symptoms.
But there has not been much research with young people using this therapy remotely or during a pandemic. This is what makes this research ground-breaking.
It is based on theories of behaviour therapy and takes the whole person into account. There is evidence that ACT can also improve quality of life. This is partly because it focuses on the individuals wishes and values and how to practically move towards these values in the actions, they choose to take So it can be a very empowering way to work.

Who can take part?

You can be included in the study if you are aged 18-25, living in the community, experiencing high levels of anxiety and, feel that you are still negatively affected by a stressful event in your past (this could be a one-off event such as a car accident or ongoing stressful situation such as bullying growing up)

Who cannot take part?

You will not be able to take part if you are experiencing psychosis as this may affect your ability to access the therapy effectively.

Do I have to take part?

All participation is voluntary, and you may withdraw at any stage, or avoid answering questions which are felt to be too personal or intrusive. This will not affect any future treatment and you will not be penalised in any way if you choose to withdraw.

What do you get in return?

Each participant receives a with a £10 Amazon voucher.

Feedback from young people who have taken part in ACT therapy has been very positive. As it is tailored to their individual personality and they choose as their own goals to work towards. Therefore, it is possible that any anxiety and stress that you are suffering from may feel more manageable after this course of therapy.

What we are measuring and how

One of the things we will be measuring your level of psychological flexibility,
ACT is been shown to increase psychological flexibility in individuals. This means that although we cannot change the events that happen to us in life, we CAN change how we respond to these difficult challenges.
The hope is that with increased psychological flexibility that quality of life goes up, as the individual begins living a life governed by choices to take them towards their goals and dreams despite stressful events happening to them and around them.

Trauma

We will also be measuring your level of trauma symptoms. Our reactions to current traumatic events (like a pandemic) can be influenced by past trauma we have experienced. Trauma is not always caused by a single event like a car crash, it can also be caused by ongoing difficulties like prolonged stress or difficulties in childhood. Experience of trauma is very common for many young adults and often goes undiagnosed in the general population. research has shown that ACT can reduce these trauma levels, so we feel it is important to measure if ACT has a beneficial impact on this score. Particularly during these challenging times when covid-19 is stretching us all to our limits.

Risks or disadvantages to this research?

During therapy, sometimes it may happen that you may be faced with some distressing thoughts that come up. But the researcher is professionally trained to help you to deal with these emotions safely. Also, sometimes it is in working through these difficult emotions that progress can be made in therapy. It is worth remembering that due to covid-19 you are probably is living in a challenging environment currently, and the overall aim of the research is to improve your ability to cope so you can manage your emotions better and feel less anxious.

Benefits or advantages of the research

The great advantage of using ACT is that it is transdiagnostic, meaning that it can be used with many different presentations of mental health difficulty. All studies undergone with ACT so far have not found any detrimental effects and in fact the opposite, have found benefits for anxiety, depression, and in helping individuals to act towards their deepest values in life.

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Safeguarding and confidentiality

Before the study

Each study must go through a rigorous procedure of approval by the ethics committee of City University London before it can be carried out with any participants.
Mary (the researcher) has many years of experience in working with young people and holds an up-to-date enhanced CRB certificate. She is a professional counsellor, having had years of working with young people with complex presentations.

Throughout the research

Each of the six ACT sessions are 60 minutes in duration and are held weekly for 6 weeks.
The programme is tailored specifically to your individual values and aims from the beginning.
The sessions will be recorded digitally in order that standards can be checked by a professional supervisor to ensure that you are getting the best service for your needs and also to ensure standards are consistent for research purposes. (it is law that every professional counsellor has a supervisor in the UK).
If you do not wish to have your sessions recorded, you will not be able to take part in the study.
These recordings will be destroyed a year after the research project ends.

After the study

Participants are given a unique number, which replaces their name in any documentation.

Participants' personal details and measure results are only available to the researcher and are kept in a password-protected file.

After the six therapy sessions provided there be no opportunity for further therapy with the researcher. If post-study you find you are struggling or needing further support, suitable signposting to organisations that may be able to offer help will be provided.

Reporting findings

The information gathered from the studies we are carrying out will be presented at various conferences and may be published in a scientific journal.

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Further information

To take part

If you are interested in helping us, please get in touch by e-mail and I will send you a consent form to give us permission to enrol you onto the study.

There will be an initial telephone call to ensure that you meet the inclusion criteria. Then the consent form shall be sent out digitally using qualtrix, along with a therapy contract and information sheet and you will be given 2 weeks to decide if you would like to take part.

Due to covid-19 all therapeutic interventions must take place online or over the telephone Therefore, the 6 weekly sessions are delivered either via 'zoom' online or over the telephone. You can choose which you prefer. Before a zoom session a unique code and password will be sent to maximise online security.

It is a requirement of this research that all participants must be able to give informed consent.

if any participant withdraws, this will not affect your subsequent therapy or the rest of the intervention and there will be no negative consequences.

During the therapy sessions, any disclosures relating to drug trafficking, acts of terrorism or money laundering may mean a breach of confidentiality.

A debrief form will be provided to all participants post-intervention.

In the meantime, we are obviously more than happy to answer any queries you may have about this project. Please see contact details below.

Further information about ACT

If you would like further information about ACT, please go to:

https://contextualscience.org/

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Data privacy statement

City, University of London is the sponsor and the data controller of this study based in the United Kingdom. This means that we are responsible for looking after your information and using it properly. The legal basis under which your data will be processed is City's public task.

Your rights to access, change or move your information are limited, as we need to manage your information in a specific way for the research to be reliable and accurate. To safeguard your rights, we will use the minimum personal-identifiable information possible (for further information please see https://ico.org.uk/for-organisations/guide-to-data-protection/guide-to-the-general-data-protection-regulation-gdpr/lawful-basis-for-processing/public-task/).

City will use your name and contact details to contact you about the research study, as necessary. If you wish to receive the results of the study, your contact details will also be kept for this purpose. The only people at City who will have access to your identifiable information will be Mary Doran. City will keep identifiable information about you from this study for 10 years after the study has finished.

You can find out more about how City handles data by visiting https://www.city.ac.uk/about/governance/legal. If you are concerned about how we have processed your personal data, you can contact the Information Commissioner's Office (IOC) https://ico.org.uk/.

If you have any problems, concerns, or questions about this study

You should ask to speak to a member of the research team. If you remain unhappy and wish to complain formally, you can do this through City's complaints procedure. To complain about the study, you need to phone 020 7040 3040. You can then ask to speak to the Secretary to Senate Research Ethics Committee and inform them that the name of the project is [name of project]
You can also write to the Secretary at:
Anna Ramberg
Research Integrity Manager
City, University of London, Northampton Square
London, EC1V 0HB
Email: Anna.Ramberg.1@city.ac.uk

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

Further information and contact details:

Mary Doran (Lead Researcher)
Tanya Lecchi (Academic Supervisor)
Department of Psychology
City University London
Northampton Square
London EC1V 0HB
Research reference number: ETH1920-1816
Mary.Doran@city.ac.uk
Tanya.Lecchi

@city.ac.uk

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Appendix 3: Research therapy contract

Research Therapy contract

This contract is between _____ and Mary Doran MBPsS BACP – Psychotherapist and researcher

Dated

The therapist

I am a professional and registered member of the British Association for Counselling and Psychotherapy and as such subscribe to their Code of Ethics and Professional Practice (a copy of which is available from the BACP).

I work using an Integrative approach to therapy based in a person-centred approach, which is rooted in the pioneering work of Dr Carl Rogers, an eminent psychologist and therapist, a theory which continues to develop. The Person-Centred Approach, in essence, uses the three core conditions of Empathy, Congruence and Acceptance. Its belief is that it is the client who knows what is painful and at the culmination of counselling it is the client who knows best how to move forward.

I am committed to providing a safe, therapeutic environment for my clients. We are both making a commitment of time and energy to each other in deciding to work together. It is important for you to know what agreements we are making together and so what to expect.

The specific approach being used in this therapy is trauma-focussed ACT and has been outlined in our telephone discussion and information sheet already provided.

Confidentiality and records

The content of the sessions are confidential to you and me. I will need to discuss our work with my supervisor as is legally required by all therapist in the UK to uphold quality and standards. I will use your first name but will not use any other identifying details about you.

On very rare occasions if we discover there is a need to communicate with other professionals, this will only proceed after first seeking your permission and knowledge of what is to be discussed. I make brief notes after a session; this helps me to monitor my work. You will not be identified from these records and they are securely stored according to strict data protection legislation (GDPR) in line with the information sheet provided and consent form which you have already read and signed.

If I identify that there is a serious risk to yourself or others confidentiality may need to be broken without consent.

Sessions and fees

Sessions will be over the telephone or internet for 1…hour/s every week for 6 weeks. The whole hour belongs to you. I will be there for you whether you decide to attend or not. If you come in five minutes from the end of our time together, I will still be there, but it is important to end our session on time. There will be no charge for these sessions as they are considered research as explained in the information sheet.

Cancellation

In any event of my not being able to give your session because of illness, or because I may attend training sessions or meetings, I will give you as much notice as possible and offer you an alternative time. I require at least **24 hours** notice if you need to cancel a session.

Our relationship

To be clear about our counselling relationship, there can be no other contact between us other than client / counsellor/researcher. My mobile number is contactable between the office hours of 9am and 4pm only unless otherwise agreed.

If we accidently meet outside of this room I will acknowledge you in a brief and friendly manner in order to protect confidentiality, unless you express your wish not to be acknowledged.

Our contact will be limited to allocated session time weekly unless email or telephone contact is necessary to rearrange session times.

Connection issues

It is possible that during therapy we may loose connection at times due to unforeseen internet issues. If this is to happen I shall call you back immediately and fi this fails I shall ring you on your phone. If connection cannot be re-established we shall continue the session on the phone.

Ending

We have contracted to work together for 6 sessions.

There may be times in the counselling when you feel very distressed and feel that therapy is not helping you. It is wise to come and discuss these difficulties and not to suddenly end the sessions. This will give you the opportunity to understand and perhaps resolve your distress.

PLEASE READ THIS DOCUMENT CAREFULLY

Check it is what we have agreed together today. Unless you have any queries, these are our boundaries and ground rules which will enable us to work together. If you wish to discuss or negotiate any changes I will be happy to do so before you sign.

This agreement is fully understood and agreed to and is signed as it stands, by:

Name……..Client

Date……

Name……Mary Doran…….Counsellor

Date…….

I give consent for my GP to be contacted if deemed necessary. I understand that this will not occur unless discussed initially with myself.

Name: …… Client

GP's name and address…

…….

……..

…..

List of medications currently taking and length of time on medication:

……..

…… ……..

……..

……..

Useful contact numbers for support

As a therapist I do not offer a crisis service. If your mood deteriorates and you feel you need more support please do not hesitate in contacting your GP.

They are your first port of call if you are feeling worse, both physically and mentally. **Ask for an urgent/emergency appointment if necessary**.

Crisis Line

If your GP practice is closed, then contact **Crisis Line.** This is a telephone helpline when you are unable to contact your GP out of hours. **Tel: 0800 028 8000** (Mon-Fri, 5pm-9am; Sat, Sun & Bank Holiday = 24 hours).

Call 111 (NHS out of hours non-emergency service). Call this number for practical support if you are worried about how you are feeling and are unsure of what to do.

Other useful contacts: Samaritans: **116 123**

Out of Hours GP services: **111**

Saneline (1pm-11pm daily)

0845 7678000

Safe Haven

01536 461414

(6pm to 2am Saturday to Tuesday)

Women's Self injury helpline: **0808 800 8088**

Tuesday & Wednesday 7-9pm

Thursday 3-5pm

Rethink Focus line (for emotional support)

0800 027 2127 (5pm to Midnight)

Free Text Number 07537 404695

Online ACT for young people during a pandemic

Start of Block: Default Question Block

Q1 **Participant Consent Form** Title of Study: Remote Acceptance and Commitment therapy for trauma: Exploring Quality of Life and psychological outcomes for young people during the Covid-19 pandemic. A mixed- methods study. Ethics approval code: 1920-1816 I give consent for data gathered from measures I have completed and from the interview I shall be taking part in to be used in the following study. I have had the project explained to me, and I have read the participant information sheet, which I may keep for my records. I have also had opportunity to ask any questions that I may have. I understand this will involve: · My completing questionnaires asking about psychological flexibility, trauma symptoms, stress levels, rumination levels, emotional regulation ability and quality of life and individual goals. following which, I will be receiving a six-week, one-hour intervention of Acceptance and commitment therapy. At the end of which measures will be taken again. · Taking part in a 60 to 90 minute interview at the end of therapy discussing my experience of therapy during covid-19. · Having my sessions recorded digitally in order for a fidelity tester to check the quality of therapy being delivered. I understand that this information will be held anonymously by City as data controller and will be processed in accordance with current General Data Protection Regulation (GDPR) for the following purpose(s): · To explore effects of individual ACT on Trauma, psychological flexibility, individual goals and · To be presented at conferences and for publication in research journals. I understand that any information I provide is confidential, and that no information that could lead to the identification of any individual will be disclosed in any reports on the project, or to any other party. No identifiable personal data will be published. The identifiable data will not be shared with any other organisation other than a professional external supervisor for fidelity testing purposes. I understand that my involvement is voluntary, that I can choose not to participate in part or all of the project, and that I can withdraw at any stage of the project without being penalized or disadvantaged in any way. I agree to City University London recording and processing this information. I understand that this information will be used only for the purpose(s) set out in this statement and my consent is conditional on the University complying with its duties and obligations under the under the General Data Protection Regulation (GDPR). I have read and understand all of the above and agree to take part in the above study and confirm that I am between the age of 18 and 25. I understand that any disclosures relating to drug trafficking, acts of terrorism or money laundering may mean a breach of confidentiality. I consent to all of the above _

- ○ Yes I consent to all of the above (1)
- ○ No I do not consent (2)

Page 1 of 4

Skip To: End of Block If Participant Consent Form Title of Study: Remote Acceptance and Commitment therapy for trauma: Exp... = Yes I consent to all of the above

Skip To: End of Survey If Participant Consent Form Title of Study: Remote Acceptance and Commitment therapy for trauma: Exp... = No I do not consent

Q9 **Participant Consent Form** Title of Study: Remote Acceptance and Commitment therapy for trauma: Exploring Quality of Life and psychological outcomes for young people during the Covid-19 pandemic. A mixed- methods study. Ethics approval code: 1920-1816 I give consent for data gathered from measures I have completed and from the interview I shall be taking part in to be used in the following study. I have had the project explained to me, and I have read the participant information sheet, which I may keep for my records. I have also had opportunity to ask any questions that I may have. I understand this will involve: · My completing questionnaires asking about psychological flexibility, trauma symptoms, stress levels, rumination levels, emotional regulation ability and quality of life and individual goals. following which, I will be receiving a six-week, one-hour intervention of Acceptance and commitment therapy. At the end of which measures will be taken again. · Taking part in a 60 to 90 minute interview at the end of therapy discussing my experience of therapy during covid-19. · Having my sessions recorded digitally in order for a fidelity tester to check the quality of therapy being delivered. I understand that this information will be held anonymously by City as data controller and will be processed in accordance with current General Data Protection Regulation (GDPR) for the following purpose(s): · To explore effects of individual ACT on Trauma, psychological flexibility, individual goals and · To be presented at conferences and for publication in research journals. I understand that any information I provide is confidential, and that no information that could lead to the identification of any individual will be disclosed in any reports on the project, or to any other party. No identifiable personal data will be published. The identifiable data will not be shared with any other organisation other than a professional external supervisor for fidelity testing purposes. I understand that my involvement is voluntary, that I can choose not to participate in part or all of the project, and that I can withdraw at any stage of the project without being penalized or disadvantaged in any way. I agree to City University London recording and processing this information. I understand that this information will be used only for the purpose(s) set out in this statement and my consent is conditional on the University complying with its duties and obligations under the under the General Data Protection Regulation (GDPR). I have read and understand all of the above and agree to take part in the above study and confirm that I am between the age of 18 and 25. I understand that any disclosures relating to drug trafficking, acts of terrorism or money laundering may mean a breach of confidentiality. I consent to all of the above _

- ○ Yes I consent to all of the above (1)
- ○ No I do not consent (2)

End of Block: Default Question Block

Start of Block: Block 1

Q3 Please give your name

_____

Q4 Please give your email address

_____

Q8 Please give your date of birth. (you must be 18-25 years old in order to take part)

_____

End of Block: Block 1

Start of Block: Block 3

Q5
I'd like to know a bit more about your traumatic experience. Please identify the experience you consider traumatic that troubles you the most and please give a brief description of the experience here:

_____

_____

_____

_____

_____

Q6 Can you tell me more about when this occured

- ○ Less than 6 months ago (or current) (1)
- ○ 6-12 months ago (2)
- ○ 1-5 years ago (3)
- ○ 5-10 years ago (4)
- ○ 10-20 years ago (5)
- ○ more than 20 years ago (6)

End of Block: Block 3

Start of Block: Block 3

Q7 Thank you for taking part in this survey. If you meet the initial screening criteria you will shortly be sent an email asking you to fill in some online measures.
Unfortunately not everyone who completes the online measures are suitable for the study due to strict inclusion criteria. If you do not receive an email within 2 weeks then you have not been selected to take part in this study.
Your time is greatly appreciated so thank you for taking part.
Thank you and good luck with your future studies.
Should you have any concerns about your mental health and feel you need support please contact your GP in the first instance or you can contact the numbers below for additional support.

For support in a crisis, Text **Shout** to **85258,** If you're experiencing a personal crisis, are unable to cope and need support. The Samaritans offer emotional support 24 hours a day - in full confidence. Call **116 123 - it's FREE** Or email jo@samaritans.org.uk You can call the Rethink advice and information line Monday to Friday, 10am-2pm.Call Rethink on **0300 5000 927** (calls are charged at your local rate). **The Mind info-line.** Mind offer an information line to answer questions about: types of mental health problem where to get help drug and alternative treatments advocacy. Call the Mind info-line on **0300 123 3393** (UK landline calls are charged at local rates, and charges from mobile phones will vary considerably). Or email info@mind.org.uk.Mind for better health website: http://www.mind-blmk.org.uk/home/crisis-contacts.html

END OF SURVEY

End of Block: Block 3

Appendix 5: Fidelity testing results

Assessed by Dr Nima Moghaddam

	Primary focus	ACT Consi	ACT Consi	ACT Consi	ACT Consi	**Total ACT**	ACT Incon	ACT Incon	ACT Incon	ACT Incon	**Total ACT**	1	2	3	4	5
p1s5	Open/Aware	9	9	9	8	35	1	0	1	0	2	3	3	3	3	1
p2s6	Engaged	9	9	7	9	34	0	0	0	0	0	3	3	3	3	0
p3s3	Open/Aware	9	9	9	8	35	0	0	0	0	0	3	3	3	3	0
p4s1	Engaged	9	6	6	9	30	0	0	0	0	0	3	3	3	3	0
Median across sampled sessions		**9.0**	**9.0**	**8.0**	**8.5**	**34.5**	**0.0**	**0.0**	**0.0**	**0.0**	**0.0**					

Median Total ACT Consistency Score of 34.5 out of 36 (median item rating = 3, indicating 'Therapist consistently enacts ACT-congruent behaviours')

Median Total ACT inconsistency score of 0 out of 36 (median item rating = 0, indicating non-occurrence of ACT-inconsistent behaviours)

	ITEM SCORES																							
2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	MEDIAN C	MEDIAN IN
3	3	3	1	0	0	3	3	3	0	0	0	3	3	3	0	0	1	3	2	3	0	0	0	3	0
4	3	3	0	0	0	3	3	3	0	0	0	2	3	2	0	0	0	3	3	3	0	0	0	3	0
5	3	3	0	0	0	3	3	3	0	0	0	3	3	3	0	0	0	3	2	3	0	0	0	3	0
6	3	3	0	0	0	1	3	2	0	0	0	2	2	2	0	0	0	3	3	3	0	0	0	3	0

Appendix 6: Ethics approval

Ethics ETH1920-1816: Ms Mary Doran (Low risk)

Date Created	16 Jun 2020
Date Submitted	18 Jun 2020
Date of last resubmission	28 Oct 2020
Date forwarded to committee	21 Jun 2020
Academic Staff	Ms Mary Doran
Student ID	170043977
Category	Doctoral Researcher
Supervisor	Dr Trudi Edginton
Project	Remote Acceptance and Commitment therapy for trauma: Exploring Quality of Life and psychological outcomes for young people during the Covid-19 pandemic. A mixed methods study.
School	School of Health & Psychological Sciences
Department	Psychology
Current status	Approved

Ethics application

Risks

R1) Does the project have funding?
No

R2) Does the project involve human participants?
Yes

R3) Will the researcher be located outside of the UK during the conduct of the research?
No

R4) Will any part of the project be carried out under the auspices of an external organisation, involve collaboration between institutions, or involve data collection at an external organisation?
No

R5) Does your project involve access to, or use of, material that could be classified as security sensitive?
No

R6) Does the project involve the use of live animals?
No

R7) Does the project involve the use of animal tissue?
No

R8) Does the project involve accessing obscene materials?
No

R9) Does the project involve access to confidential business data (e.g. commercially sensitive data, trade secrets, minutes of internal meetings)?
No

R10) Does the project involve access to personal data (e.g. personnel or student records) not in the public domain?
No

R11) Does the project involve deviation from standard or routine clinical practice, outside of current guidelines?
No

R12) Will the project involve the potential for adverse impact on employment, social or financial standing?
No

R13) Will the project involve the potential for psychological distress, anxiety, humiliation or pain greater than that of normal life for the participant?
No

R15) Will the project involve research into illegal or criminal activity where there is a risk that the researcher will be placed in physical danger or in legal jeopardy?
No

R16) Will the project specifically recruit individuals who may be involved in illegal or criminal activity?
No

R17) Will the project involve engaging individuals who may be involved in terrorism, radicalisation, extremism or violent activity and other activity that falls within the Counter-Terrorism and Security Act (2015)?
No

Applicant & research team

T1) Principal Applicant

Name
Ms Mary Doran

T2) Co-Applicant(s) at City

T3) External Co-Applicant(s)

T4) Supervisor(s)
Dr Trudi Edginton

T5) Do any of the investigators have direct personal involvement in the organisations sponsoring or funding the research that may give rise to a possible conflict of interest?
No

T6) Will any of the investigators receive any personal benefits or incentives, including payment above normal salary, from undertaking the research or from the results of the research above those normally associated with scholarly activity?
No

T7) List anyone else involved in the project.
Nima Golijani Moghaddam who will be external fidelity tester and ACT supervisor.

Project details

P1) Project title
Remote Acceptance and Commitment therapy for trauma: Exploring Quality of Life and psychological outcomes for young people during the Covid-19 pandemic. A mixed methods study.

P1.1) Short project title
Remote Acceptance and Commitment therapy for young people during covid-19

P2) Provide a lay summary of the background and aims of the research, including the research questions (max 400 words).
During a pandemic there is huge possibility of re-traumatisation and

further disempowerment for individuals who have already experienced many

adverse childhood experiences and traumatic events growing up. Young people can easily become

trapped in a cycle of repeating risk-taking behaviour and dysfunctional relational patterns including

rumination and psychological dysregulation. Acceptance and commitment therapy (ACT) has been shown to be effective in reducing

levels of trauma and increasing levels of psychological flexibility (PF) with adults (Hayes et al., 2006; Kashdan & Rottenberg, 2010) and also with adolescents in the community (Livheim 2019). But to date there have been no studies incorporating the use of Remote ACT for young people in the UK. This study aims to address this gap, particularly relevant when emotional support and interventions are arguably needed more than ever due to COVID-19 related stress, yet access to interventions is hugely restricted due to lockdown restrictions. Thus, ability to meet in person for therapy is not possible for many.

The research questions are:

Can remote ACT for young people improve outcomes and quality of life despite living through a pandemic?

Aims and objectives: The primary aim of this study is to investigate whether there are mediating

effects of PF on comorbid presentations and behaviours of young people during a pandemic. Additionally, the study will test whether an

increase in PF leads to more post traumatic growth and personally defined proactive behaviours of young people.

A secondary aim of this study is to investigate, interpret and report the lived experience of the participants in relation to their personal experience of ACT (including any benefits or difficulties experienced).

Therefore, the objectives are:

1. to explore whether there is a relationship between ACT and PF levels in young people.

2. to explore further whether PF mediates changes in levels of trauma symptoms, post-traumatic growth, rumination, anxiety and depression in young people during the covid-19 pandemic.

3. to explore whether PF mediates changes in perceived stress levels pre-post session and emotional regulation ability in young people during the covid-19 pandemic.

4. to ascertain whether increased PF positively mediates behaviours towards individually selected Goals hence improving quality of life.

5. to investigate and report individual lived experience of the impact of ACT on young people's lives during a pandemic

P4) Provide a summary and brief explanation of the research design, method, and data analysis.

Method: Multiple Case series design. Mixed methods Using quantitative analyses and a qualitative semi structured interview(attahced)to explore young people's experiences of coping/emotion regulation/resilience during the Covid-19 pandemic.

Design: single-case research design (SCRD) case-series which will combine an idiographic element as well as quantitative and qualitative measures to test the above hypothesis. A multiple baseline design is the best SCRD option, offering the most rigorous design to counselling research (Ray, 2015). As well as quantitative data being collected a semi-structured interview will illuminate understanding of the mechanisms of change as well as increasing understanding of the individual experiences of young people. Utilising mixed methods gives triangulation and adds to breadth and depth of understanding the processes involved in change as well as validity. A fixed mixed method multiple case series following a staggered AB format will be used to study processes of therapeutic change with individual clients and to document improvement (Kazdin, 2011).There will be a 6-week intervention of ACT individual remote therapy (over the telephone or using zoom) sessions for all participants.

Outcome measures will be:

Anxiety as measured by the General Anxiety Disorder scale (GAD7), Depression as measured by the Patient Health Questionnaire (PHQ9), Quality of life as measured by the Quality of Life Scale (QOLS), Post-Traumatic Growth Inventory (PTGI)Tedeschi and Calhoun (1995), Rumination scale (as measured by the RRS-short form), Psychological Flexibility as measured by the CompACT (Francis, Dawson & Moghaddam, 2015), Emotional regulation as measured by the ERQ (Gross & John, 2003) and behaviours as specified by brief personalised measure with specific desired

outcomes from therapy: 'Goals in therapy' (Law, 2018), Trauma as measured by the revised Life Events Checklist for DSM-5 (LEC-5) plus the PCL-5.

Analysis: Quantitative analysis will be measured with the Reliable Change Index and visual data examination. Qualitative data shall be collected using a semi-structured interview (attached), adapted from the change interview (Elliott et al., 2001), and will be analysed using thematic analysis.

Measures shall be emailed to participants via pragmatic tracker. The email shall be the prompt for participants to complete the measures.

Some measures shall be completed weekly for 3 weeks prior the intervention beginning in order to establish the individuals baseline for these measures, then weekly during intervention as well as 1 month post intervention (GAD7, PHQ9, QOLS,RRS and ERQ). It is estimated these measures shall take about 30 minutes to complete. The remaining measures (PTGI, CompACT, LEC-5 and PCL-5 and goals) shall also take about 30 minutes to complete and shall be completed at three points: In the week of the intervention beginning, midway through the intervention, at the end of the intervention and also 1 month post intervention).

The interview shall take place the week after the intervention has finished. The researcher shall be conducting both the interview and also delivering the intervention.The interview shall be recorded using zoom, and audio.

P4.1) If relevant, please upload your research protocol.

P5) What do you consider are the ethical issues associated with conducting this research and how do you propose to address them?

Potential ethical issues are that the participants may become emotional or distressed during the 6 sessions, Connection may be lost suddenly mid-session due to unpredictable connectivity issues, or participants may over disclose and then regret this post session leaving them feeling exposed and vulnerable.

To acknowledge the minimising of risk here the researcher is a qualified and registered professional counsellor (BACP) with 11-years experience of working with young people and adults experiencing emotional and behavioural difficulties across a variety of organisations including schools, doctors surgeries, and inpatient settings. Presentations she commonly deals with range from anxiety, depression, first presentation of psychosis, self-harm, PTSD, complex trauma and suicidal ideation and attempt. Therefore, she is equipped to monitor and manage risk as may present in the intervention and also has knowledge and experience of signposting where necessary. signposting and referring will take place as appropriate. In the therapy intervention a contract shall be drawn up at the beginning which will confirm confidentiality and also details of the clients GP. Should it be identified that the participant needs additional support this will be discussed with them initially and it shall be recommended they contact their GP in the first instance. If the participant conveys any reason for serious concern for their own safety or someone they know this shall be flagged and the researcher, as therapist in this instance shall reserve the right to breach confidentiality in order to notify their GP. This shall be discussed with the participant firstly.

The researcher is trained in Trauma focussed CBT, and another trauma informed therapy called See Far CBt (Somatic experiencing and Fantastical reality CBT; Lahad, 2010).

The researcher has also completed level 1 and level 2 ACT training with mindfulness training ltd (www.psychflex.co.uk) conducted by David Gillanders, and has clinical experience of using ACT

interventions with young people for 2 years.

The researcher is also a trained mindfulness teacher for children having trained with MISP (mindfulness in schools project) and conducted her BSc on the effects of mindfulness on children's levels of affect and resilience with a trial within schools.

The researcher also has undertaken further ACT training on DNA-V (specific ACT approach for adolescents (Ciarrochi & Hayes, 2018).

Additionally, the researcher is a trained shiatsu practitioner with training and a special interest in the body/mind connection, bringing knowledge of many somatic and mindfulness relaxation techniques suitable for young people in this setting.

All the above professional skills and experience mean that the researcher is equipped and able to support any young person's distress appropriately within sessions. A therapy contract shall be agreed upon with each participant which will clearly state that the researcher is not a crisis service and shall specify who the participant can contact for emotional support between sessions if needed.

Should connection become interrupted there will be an agreed protocol as stated in the contact where the session can resume by telephone until connection is resumed. Additionally, specific organisations for support shall be provided to the participant and this distress protocol shall be included at the end of the therapy contract, making it clear that the therapist does not provide a crisis service. During the interview the debreifing document shall be handed out to participants which will state again the signposting contacts, should distress come up in the interview.

Extra time shall be set aside post interview should the interviewee require extra time to debreif.

P6) Project start date

The start date will be the date of approval.

P7) Anticipated project end date

15 Sept 2021

P8) Where will the research take place?

Due to the covid-19 pandemic and risk of infection therapy currently cannot be held face to face. Therefore remote methods will be offered to participants and this shall be made clear from the outset(stated on the poster as well as information sheet). The participants may choose whether they want the intervention to be conducted via telephone contact or to use zoom. Participants may be using a variety of different hardware which may influence their choice and access to zoom.

P10) Is this application or any part of this research project being submitted to another ethics committee, or has it previously been submitted to an ethics committee?

No

Human participants: information and participation

The options for the following question are one or more of:
'Under 18'; 'Adults at risk'; 'Individuals aged 16 and over potentially without the capacity to consent'; 'None of the above'.

H1) Will persons from any of the following groups be participating in the project?
None of the above

H2) How many participants will be recruited?
10

H3) Explain how the sample size has been determined.
As the qualitative strand of research is utilising thematic analysis this has been considered. Research has shown that six interviews is adequate to produce sufficient data saturation when conducting thematic analysis (Guest, Bunce & Johnson, 2006) The quantitative strand of analysis is single case design and therefore baselines for all measures will be set by each individual rather than comparison to a control group, therefore a common number of participants for a case series design is between 2 and 8 (Morely, 2015 p160).

It has been calculated that a realistic number of current patients likely to be present for sufficient duration to access the pilot study will be 6-10.

H4) What is the age group of the participants?

Lower	Upper
18	25

H5) Please specify inclusion and exclusion criteria.
Inclusion criteria

Participants will be included in the study if they are aged 18-25, living in the community, experiencing high levels of anxiety, can identify at least one traumatic incident in their experience (identified as a feeling they are still presently affected by a stressful event that happneed in the past)and capable of giving informed consent.

Exclusion criteria

Participants shall be excluded if they are experiencing psychosis, as distorted perceptions of reality may prohibit their ability to engage and process the intervention content.

H6) What are the potential risks and burdens for research participants and how will you minimise them?
Potential risks are that the participants may become emotional or distressed during the 6 sessions, Connection may be lost suddenly mid-session due to unpredictable connectivity issues, or participants may over disclose and then regret this post session leaving them feeling exposed and vulnerable. The first points have already been addressed previously. In the first session the therapist shall warn participants of the propensity to over-disclose in remote sessions to help prevent this becoming a problem.

As already stated, signposting and referring will take place as appropriate. Regarding the interview, the researcher shall dedicate extra time at the end of the interview to allow for the possibility that the participant may become distressed this so that extra support may be offered at that time. She will use her professional judgement as to whether the participant is likely to need further support, in which case she will refer to the debrief form which re-states relevant signposting organisations.

H7) Will you specifically recruit pregnant women, women in labour, or women who have had a recent stillbirth or miscarriage (within the last 12 months)?
No

H8) Will you directly recruit any staff and/or students at City?
None of the above

H8.1) If you intend to contact staff/students directly for recruitment purpose, please upload a letter of approval from the respective School(s)/Department(s).
H9) How are participants to be identified, approached and recruited, and by whom?
The researcher shall use Sona to recruit City students and shall also use social media such as facebook and instagram to recruit young people from other areas other than university settings.

H10) Please upload your participant information sheets and consent form, or if they are online (e.g. on Qualtrics) paste the link below.
H11) If appropriate, please upload a copy of the advertisement, including recruitment emails, flyers or letter.
H12) Describe the procedure that will be used when seeking and obtaining consent, including when consent will be obtained.
It is a requirement of this research that all participants must be able to give informed consent.

The consent form will state that any disclosures relating to drug trafficking, acts of terrorism or money laundering may mean a breach of confidentiality as according to the The consent form shall be given after the participant has had a chance to ask any questions about the research and 2 copies shall be signed with one being given to the participant and one shall be retained by the researcher.

Information sheets will declare dissemination strategy and clarify that, if any participant

withdraws, this will not affect their subsequent delivery of the rest of the intervention and there will be no negative consequences.

A debrief form will be provided to all participants post-intervention. Verbal assent will be affirmed

before every session undertaken once the intervention begins.

The researcher shall obtain consent after having the inital screening telephone call to ensure that the participants meet the inclusion criteria. The consent form shall be sent out digitally using qualtrix along with the therapy contract and information sheet and the participants will be given 2 weeks to decide if they would like to take part before the first week of data collection.

H13) Are there any pressures that may make it difficult for participants to refuse to take part in the project?
No

H14) Is any part of the research being conducted with participants outside the UK?
No

Human participants: method

The options for the following question are one or more of:
'Invasive procedures (for example medical or surgical)'; 'Intrusive procedures (for example psychological or social)'; 'Potentially harmful procedures of any kind'; 'Drugs, placebos, or other substances administered to participants'; 'None of the above'.

M1) Will any of the following methods be involved in the project:
None of the above

M2) Does the project involve any deceptive research practices?
No

M3) Is there a possibility for over-research of participants?
No

M4) Please upload copies of any questionnaires, topic guides for interviews or focus groups, or equivalent research materials.

M5) Will participants be provided with the findings or outcomes of the project?
No

M6) If the research is intended to benefit the participants, third parties or the local community, please give details.
The intervention itself is expected to improve psychological coping skills, resilience and psychological flexibility leading to reduced anxiety and depression generally in the participants. It is also intended that the knowledge garnered from the project will benefit the wide community in that emotional support and interventions are arguably needed more than ever due to COVID-19 related stress, yet access to interventions is hugely restricted due to lockdown restrictions. Thus, ability to meet in person for therapy is not possible for many. If this remote intervention proves beneficial for individuals during the covid-19 pandemic it could prove an affordable and practical way to provide mental health support and prevent poor mental health outcomes due the additional stress and trauma such a pandemic causes.

M7) Are you offering any incentives for participating?
No

M8) Does the research involve clinical trial or clinical intervention testing that does not require Health Research Authority or MHRA approval?
No

M9) Will the project involve the collection of human tissue or other biological samples that does not fall under the Human Tissue Act (2004) that does not require Health Research Authority Research Ethics Service approval?
No

M10) Will the project involve potentially sensitive topics, such as participants' sexual behaviour, their legal or political behaviour, their experience of violence?
No

M11) Will the project involve activities that may lead to 'labelling' either by the researcher (e.g. categorisation) or by the participant (e.g. 'I'm stupid', 'I'm not normal')?
No

Data

D1) Indicate which of the following you will be using to collect your data.
Questionnaire
Interviews
Audio/digital recording interviewees or events

D2) How will the the privacy of the participants be protected?
De-identified samples or data

D3) Will the research involve use of direct quotes?
Yes

D5) Where/how do you intend to store your data?
Storage on encrypted device (e.g. laptop, hard drive, USB
Storage at City

D6) Will personal data collected be shared with other organisations?
No

D7) Will the data be accessed by people other than the named researcher, supervisors or examiners?
Yes

D7.1) Explain by whom and for what purposes.
The recordings will be accessed by the fidelity tester Nimah Moghaddam.(c.v. attached above)

D8) Is the data intended or required (e.g. by funding body) to be published for reuse or to be shared as part of longitudinal research or a different/wider research project now or in the future?
No

D10) How long are you intending to keep the research data generated by the study?
City guidelines state a minimum of 10 years, and for students it is recommended to keep their data until after graduation. Data shall therefore be kept on the encrypted platform for 10 years after the researcher's graduation when it will then be destroyed.

D11) How long will personal data be stored or accessed after the study has ended?
Personal data will be stored for 10 years after graduation (currently oct 2022)

D12) How are you intending to destroy the personal data after this period?
All files kept on the university encypted site shall be permanently deleted. All digital data stored on enctypted devices shall also be deleted permanently.

Health & safety

HS1) Are there any health and safety risks to the researchers over and above that of their normal working life?
No

HS3) Are there hazards associated with undertaking this project where a formal risk assessment would be required?
No

Ethics ETH2021-0906: Ms Mary Doran (Low risk)

Date Created	14 Dec 2020
Date Submitted	14 Dec 2020
Date of last resubmission	02 Mar 2021
Date forwarded to committee	16 Dec 2020
Academic Staff	Ms Mary Doran
Student ID	170043977
Category	Doctoral Researcher
Supervisor	Dr Tanya Lecchi
Project	Remote Acceptance and Commitment therapy for trauma: Exploring Quality of Life and psychological outcomes for young people during the Covid-19 pandemic. A mixed methods study.
School	School of Health & Psychological Sciences
Department	Psychology
Current status	Approved

Ethics application

Amendments

SA1) Types of modification/s

Change the design and/or methodology of the project, including changing or adding a new research method and/or research instrument

SA2) Details of modification

H8 has now changed in that I will be recruiting participants directly from City University.

Also I shall be changing the measures regarding trauma so instead of using a combination of the LEC (life events checklist) and the PCL 5 I will be using the International Trauma Questionnaire.

Finally I no longer require permission to conduct a small informal pilot study as I shall be going straight into the actual research study directly from screening.

SA3) Justify why the amendment is needed

Regarding recruiting students directly, this decision was arrived at after an in depth discussion with Marie Poirier about the suitability of Sona.

The summary of that meeting was as follows.

1. Marie felt that Sona may be a bit clunky and complicated for my study when all I need is to actually contact all the students to let them know about the study, which will be taking part on another external platform.

2.Most studies on Sona have a certain number of credits attached but for my study which is asking for quite a few hours of commitment, students will expect many credits and this would prevent them from taking part in multiple studies. Also, to offer credits I would need to borrow some of your 1200

credits that would be allocated to you for example as they can't give credits out randomly to all researchers).

3.Sona was not seen as a suitable platform for my study as I have to screen participants first over pragmatic tracker before saying they can take part. The screening process cannot be easily amalgamated into sona.

So, it was suggested that it might be a lot smoother and more straightforward if I was able to email all the psychology students directly. Marie said that all I would need for this is a letter of permission from Trudi Edginton as head of the school and for this letter to be counter signed by someone like Sebastian Gaigg (associate head of department) to state there are no conflicts of interest and that I have permission to email all psychology students.

Trudi and Seb have since agreed to this.

The reason for changing my trauma measure is that it significantly reduces the number length of time for filling in forms as it combines single and multiple trauma events in one form. The ITQ has also been seen to be more aligned with complex trauma as defined by the ICD 11 and thus will be useful to distinguish between PTSD or CPTSD which would be an interesting and important differentiation when exploring the impact of my intervention.

SA4) Other information

I am not conducting a pilot study so do not now require permission for this aspect as formerly requested.

SA5) Please upload all relevant documentation with highlighted changes

Project amendments

P1) Project title

Remote Acceptance and Commitment therapy for trauma: Exploring Quality of Life and psychological outcomes for young people during the Covid-19 pandemic. A mixed methods study.

P2) Principal Applicant

Name

Ms Mary Doran

P3) Co-Applicant(s) at City

P4) External Co-Applicant(s)

P5) Supervisor(s)

Dr Tanya Lecchi

Ethics ETH2021-1804: Ms Mary Doran (Low risk)

Date Created	27 Apr 2021
Date Submitted	27 Apr 2021
Date forwarded to committee	29 Apr 2021
Academic Staff	Ms Mary Doran
Student ID	170043977
Category	Doctoral Researcher
Supervisor	Dr Tanya Lecchi
Project	Remote Acceptance and Commitment therapy for trauma: Exploring Quality of Life and psychological outcomes for young people during the Covid-19 pandemic. A mixed methods study.
School	School of Health & Psychological Sciences
Department	Psychology
Current status	Approved

Ethics application

Amendments

SA1) Types of modification/s

Other

SA2) Details of modification

I would like to change the inclusion criteria to allow participants who score 'from mild to severe anxiety or mild to severe depression' rather than high levels of anxiety (as already approved).

SA3) Justify why the amendment is needed

The reason for this is that it may be argued that a participant could be experiencing effects of a past trauma but may be feeling numb and depressed rather than anxious.

SA4) Other information

SA5) Please upload all relevant documentation with highlighted changes

Project amendments

P1) Project title

Remote Acceptance and Commitment therapy for trauma: Exploring Quality of Life and psychological outcomes for young people during the Covid-19 pandemic. A mixed methods study.

P2) Principal Applicant

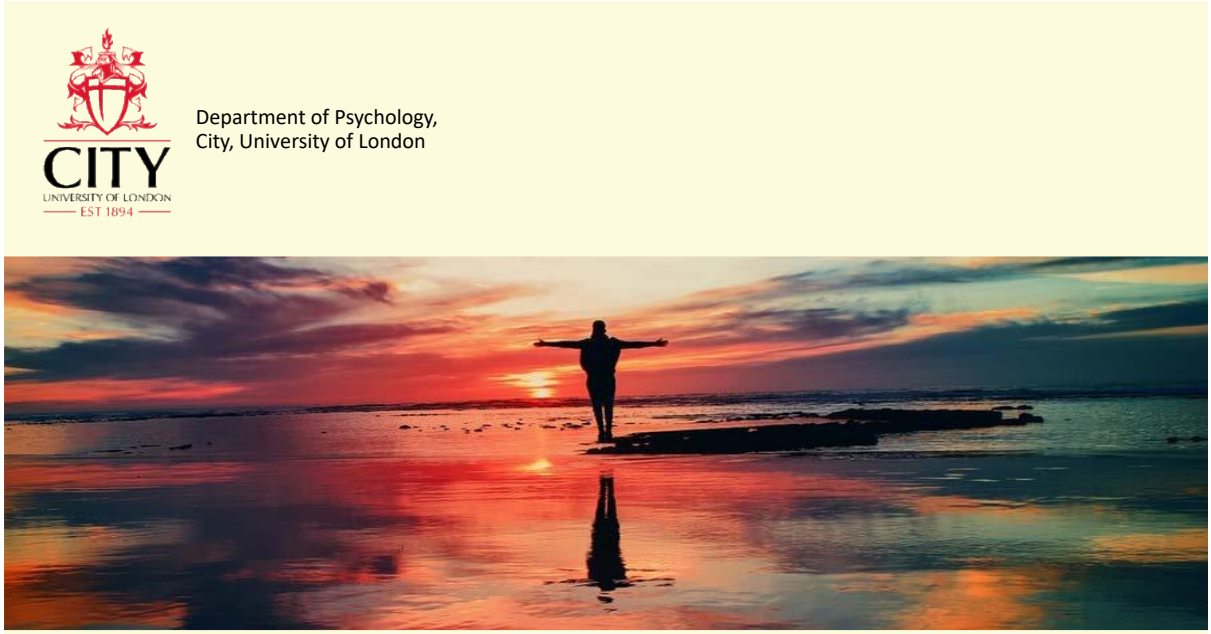
Name
Ms Mary Doran

P3) Co-Applicant(s) at City

P4) External Co-Applicant(s)

P5) Supervisor(s)
Dr Tanya Lecchi

Appendix 7: Poster advert



Department of Psychology,
City, University of London

PARTICIPANTS NEEDED FOR RESEARCH

Remote Acceptance and Commitment Therapy for Trauma: Exploring Quality of Life and Psychological Outcomes for Young People During the COVID-19 Pandemic

- **Are you aged 18-25?**
- **Have you experienced additional stress as a result of COVID-19?**
- **Would you be willing to receive free therapy for 6 weeks to help with the research?**
- **Would you be willing to be interviewed about your experience of the therapy and COVID-19?**

My name is Mary Doran and I am a doctoral researcher at City University of London. I am looking for young people who feel they have been affected by COVID-19 to take part in my study.

The main aim of the research is to investigate whether acceptance and commitment therapy (ACT) can make a difference to feelings and behaviours of young people during a pandemic. Additionally, the study will test whether this particular therapy can help lead to more post-traumatic growth and more proactive behaviours of young people.

A secondary aim of this study is to investigate and report the lived experience of the young people in relation to their personal experience of the therapy (including any benefit or difficulties experienced).

*** Participants will not be able to take part if they are experiencing psychosis or fall outside of the age bracket 18–25.**

All contact made will be confidential. All gathered data will also be confidential.

For more information about this research, please contact:
– Mary Doran (principal researcher): mary.doran@city.ac.uk or
– Dr Trudi Edginton (Research supervisor): trudi.edginton@city.ac.uk

This study has been reviewed by and received ethics clearance through the Research Ethics Committee at City, University of London. Ethics approval code: ETH1920-1816.

If you would like to complain about any aspect of the study, please contact the secretary to the Senate Research Ethics Committee on 020 70403040 or via email: Anna.Ramberg.1@city.ac.uk

City University of London is the data controller for the personal data collected for this research project. If you have any data protection concerns about this research project, please contact the Compliance team at dataprotection@city.ac.uk

Appendix 8: Change interview data

Raw data verbatim from four participants by question.

Question	P1	P2	P3	P4
1.How are you doing now in general?	More at ease within myself.	I'm doing better, much better.	A lot more positive for the future	Everything is going quite well.
2.How has the ACT therapy been for you?	Beneficial and useful. I understand my family dynamics better. It's helped me to put in boundaries that I needed.	I liked how we had a lot of like act activities like kind of like that I can use now and. my anxieties like I can't just work on stopping them like, they will always be there and like that's okay and I rather should concentrate on like thinking of like, how can I deal with them better and like not let them stop me doing my life like doing my activities	it's been actually really, really nice, because I think like the most important thing is like the safe space.	I'm more relaxed, I feel like a more relaxed and was like more in control of like my thoughts and like how I managed to do things. The most helpful thing was the tasks in-between sessions.
3.What changes if any have you noticed in yourself since ACT therapy began?	Reaching out to others more. Speaking my mind more. Being more authentic. Been engaging more socially. Being kinder to myself. I feel much less helpless just by taking small steps in the direction. Notice the different passengers on the bus a lot more.	Better at approaching tasks. like still not ideal perfect, but I think I'm doing is much more than I used to. Rather than just be like so against them and, like concentrating on like getting rid of them, so I think that was like a massive thing for me personally. was expecting more talking about problems) but I got some skills that now I don't really need	Depressive periods are shorter. drastically better sense of self worth. Is less of a people pleaser. Realising that I don't owe anyone anything.	Communication is going well in Relationship. Study/life balance is better than it was before. I judge myself hardly now.

Question	P1	P2	P3	P4
		someone like to… you know this talk everything out. I can reduce it myself or do some steps to make it less impactful.		
4a. Has anything changed for the worse since you started ACT	No	Not really	Only some life circumstances.	I don't think so.
4b. Is there anything that you wanted to change that hasn't since therapy started?	Lots of things have changed that I didn't expect to, but for the better.	Practical things outside therapy	Anxiety and overthinking	I don't think so.
5a. For each change, please rate how much you expected it vs. were surprised by it?	Very surprised by it 5	Somewhat surprised about change of perspective on anxiety 4	Self-worth (4 Very much surprised by it) less people pleasing (4 somewhat surprised by it)	(3) Neither expected nor surprised by the change
5b. For each change, please rate how likely you think it would have been if you hadn't been in ACT therapy?	(1) Very unlikely without therapy (clearly would not have happened)	(2) Somewhat unlikely without therapy (probably would not have happened)	(1) Very unlikely without therapy (clearly would not have happened)	(2) Somewhat unlikely without therapy (probably would not have happened)
5c. How important or significant to you personally do you consider this change to be?	(5) Extremely important	(4) Very important	(5) Extremely important	(5) Extremely important
6.Attributions: In general, what do you think has caused these various changes? (Including things both outside of ACT therapy and in therapy)	Been doing Yoga more as well as more mindfulness, realising what I want in life more. Some situations are not right for me, I'm making changes.	Different perspective led to different goals. Experiments between sessions.	Realisation that I had a difficult childhood. ACT help me see different perspective, and talking to friends, realising they had easier lives.	And so mainly I think like that it was important to me that, like these changes happened and then act therapy also like focussed on those goals, so sometimes when I like needed help with

Question	P1	P2	P3	P4
				stuff like I could talk about like in these meetings. Outside of therapy deadlines motivated me at uni to get things done.
7.Helpful Aspects: Can you sum up what has been helpful about your ACT therapy so far? Please give examples.	Mindfulness, It's difficult to kind of remind myself in like a stressful situations, but it generally I do feel find myself like being able to yeah calm myself down and be more at ease with even like negative negative emotions. …I was really anxious to the point where I couldn't really sleep. I went over all the all the therapy techniques oh sorry okay let's just try and try and calm down but also be okay, with the fact that maybe I won't calm down for a while… I'd be more willing to face anxious emotions. The longer I live with this newfound love with the newfound identities of the passengers on the bus than maybe I could fully well see eventually trying to kind of see that in other people as well. You made me feel safe from the start. Your way of being accepting and warm. The havening helped me	that bus activity we did you know, sometimes when like a lot of negative thoughts come out I just think of that bus and kind of like trying to voice them down and like change the perception… I'm not really talking out loud and I do it by like in my head, I still do it… or their complaints kind of thing like when it gets very, very emotional like I do try to just like so down and sit down and maybe think of the (safe place) … and I actually shared it with my friends.	It can help you to find out what your best life is for you and what's important to you. Definitely being listened to and supported. Havening helped me loads. I use it a lot and taught my friends at home.	Different coping mechanisms have been helpful and different way of looking at thoughts, rather than hiding them away. Anchoring with the holiday home was my favourite and it calmed me down a lot when I needed it. for example, like the leaf on the River thing like if I don't want to think about something I try to let go of the thoughts, like in a more controlled way that, rather than just pushing it down and just like basically waiting for it to come back. Leaf on a river also was helpful. Havening helped me when I was doing my story. Helped me calm down and finish it.

Question	P1	P2	P3	P4
	a lot too, and the butterfly hug.			
8a. What kinds of things about the therapy have been hindering, unhelpful, negative	Nothing	You know, things like 'this anxiety will never disappear' like I think in the start was very scary when we thought about it was just like what… like this was like my whole hope.. But I think like that eventually kind of freed me	Sometimes the emailed resources did not feel accessible in a moment of overwhelm.	At the beginning some of the exercises felt a bit weird like the leaves on river or the clouds in the sky. difficult to visualize, actually let go of the thoughts, but like the more I tried to do it, the easier it got to like actually be in that moment, and let go of the thought. When the thought is like really overwhelming then it's not working as well, but yeah like usually it does work.
8b. Were there things in the ACT therapy which were difficult or painful but still OK or perhaps helpful?	Re-visiting painful events at times but at the same time it is helpful to go over them as well sometimes. It was difficult to push myself out of my comfort zone to do some of the things my body didn't want to do.	I think if you were to ask me like straight after therapy I'd probably say that you know it's disappointing that there's no such thing is anxiety free and also like it was very disappointing, but now It's not disappointing, as I said, like it's freeing. Maybe like you know, as I said in the moment they were difficult parts which I think I would prefer to miss in the moment. Just because it's difficult, but now	um I mean I don't think anything about this therapy was painful it was more just like situations, I was in that was painful like when I was back home.	At the beginning, I think, like the first session, it was like a bit difficult like to talk about some stuff which I haven't like talked about before, for example. Like just getting over it like sharing personal things with a stranger essentially like that was maybe a bit difficult at the beginning and also when we talked about that technique. Where like when the difficult thought that

Question	P1	P2	P3	P4
		that you know I came to this very good like outcomes in the end it feels like Okay, it was worth it was a difficult moment		came to my mind that I like write it down, but then keep writing until like a moment where everything was okay again like that was a bit painful and say, but so like it was helpful in the end, like. (narrative technique)
8c. Has anything been missing from your treatment? (What would make/have made your therapy more effective or helpful?)	Having longer time in therapy. Having more sessions to really hone the new techniques and create new pathways. Good to practice the techniques with the therapist.	Not really no. Would have liked to have carried on.	So I have like a lot of trauma unpacking to do um and I, unlike I don't know if that's just like me being scared and not like not ready to unpack that and like you know everyone's needs are like very different. I wish I could have gone through them a bit more.	No.
9. Suggestions. Do you have any suggestions for us, regarding the research or the therapy?	Would have liked longer time in therapy. 8 to 10 weeks ideally.	Online therapy might be hard for some people to open up.	Having more sessions would have been good	I recommend the online questionnaires as you have more time to think and answer them.

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Part II: Publishable paper

Remote ACT-based integrative therapy for young people during a pandemic. Integrating psychosensory and somatic experiencing with ACT to address PTSD and CPTSD.

Abstract

Objective

Emotional and physiological regulation as well as Psychological flexibility (PF) are important elements in improving coping with trauma symptoms. Trauma-focussed Acceptance and commitment Therapy (ACT) is emerging as having positive outcomes in reducing trauma symptoms as well as being linked to positive outcomes such as improved quality of life.

Post Traumatic Stress Disorder (PTSD) and Complex PTSD (CPTSD) are debilitating conditions which are linked to comorbid conditions such as anxiety and depression and Experiential Avoidance (EA) and further when young people suffer from PTSD or CPTSD this can have long-term detrimental outcomes and negatively affect their life-course.

Given that this trauma-focussed ACT intervention includes Somatic Experiencing (SE) and psychosensory elements, it is aimed at increasing PF and emotional and physiological regulation which holds potential for reducing EA and fostering improved quality of life via pursuit of intrinsic values.

Methods

This study used a mixed methods multiple single-case design to explore the acceptability and effects of a six week remote trauma focussed ACT intervention for six 18-25 year old participants experiencing trauma symptoms.

Results:

Overall psychological flexibility improvements were also replicated and maintained in all 4 participants at follow up. Effect size of change calculated using percentage of non-overlapping data showed ranged from small to large effect (28%-100%). All participants rated the intervention as acceptable and also experienced reliable decrease in depression levels with moderate to large effect size (42.85%-100% PND).

Significant and reliable improvements in quality of life were replicated and maintained in 3 of 4 participants. Significant and reliable improvements were also replicated for PTSD symptoms in all 4 participants. 3 of the 4 participants saw a reliable and significant decrease in CPTSD symptoms, although one participant showed an increase in CPTSD levels baseline to follow up. 3 of the 4 participants also showed significant and reliable decrease in anxiety levels effect size ranging from 42.85% to 87.71 (PND). Qualitative data added further validity to the importance of ACT process' contribution to perceived change and participants' attribution for this.

Conclusion: This study was exploratory in nature and resulting evidence points towards this intervention being of benefit to many young people with trauma symptoms. Particularly in the development of self-regulation and reducing the intrusive nature of trauma.

It seems that this form of intervention can be efficacious in improving overall psychological flexibility. Although there were many improvements in several measures for all of the participants for one particular participant there was an increase in CPTSD levels which prompts discussion around the effectiveness of this intervention for some individuals.

Keywords: Trauma-focused Acceptance and Commitment Therapy, ACT-based integrative, PTSD, CPTSD, Anxiety, Depression, Somatic Experiencing, Psychosensory, Experiential Avoidance, pandemic. Mixed-method.

Introduction

During a pandemic there is huge possibility of re-traumatisation and further disempowerment for individuals who have already experienced many adverse childhood experiences and traumatic events growing up. Children and teenagers tend to be especially vulnerable to the effects of trauma. The developing brain is experiencing such growth in this highly neuroplastic developmental stage, that trauma experienced in this time can affect development, so that not only does a traumatised young person face difficulties in processing trauma and learning to function positively through it, but they can also become sensitised in such a way that results in further trauma, and also physiological symptoms (Van Der Kolk, 2007:2009; Drossman et al., 1990) and if not addressed the effects of trauma can last a lifetime (Cicchetti & Toth, 1995; Bellis, 2014; Felitti et al., 1989).

As well as single traumatic events such as car accidents or sudden death of a loved one, adverse childhood experiences (ACEs) (Bellis et al., 2014) are now also known to be a factor which can cause developmental trauma (Van Der Kolk, 2009), which shall be further defined below. There are nine ACEs that can affect stress levels and thus mental health (see Figure 1). The more ACEs a child experiences, the more likely they will suffer chronic traumatic stress, directly impacting their nervous system, hormonal responses and immunological development. Projected outcomes for both mental and physical health are consequently much poorer (Brown et al., 2010). ACEs include direct physical sexual and verbal abuse of the child but also include witnessing violence in the home, parental separation and witnessing of alcohol or drug misuse. Further, trauma exposure increases likelihood of anxiety, depression and other comorbidity.

Youth can be a pivotal time for mental health as most major mental health disorders begin in this stage of life. Once onset is established, many major disorders continue into adulthood and have long-lasting implications for the individual (Evans, Foa, Gur, Hendin, O'Brien, Seligman & Walsh, 2005). One in eight (12.8%) 5–19-year-olds had at least one mental

disorder when assessed in 2017 (NHS, 2017). Anxiety and depression were shown to have doubled in young people between 1986 and 2006 (Collishaw, Maughan, Natarajan & Pickles, 2010), and between 2001 and 2011 inpatient intake for self-harm for under-17-year-olds increased by 68% (Young Minds, 2011).

Additionally, Many trauma survivors remain undiagnosed and unrecognised within the general population. The Office for National Statistics (ONS, 2020) released data revealing that 1 in 5 adults had experienced or witnessed child abuse (whether emotional, physical or sexual) before the age of 16. This equates to about 8.5 million people. Many of these could be trauma sufferers. Within more specific groups such as police officers the combined prevalence of trauma has been measured recently at 20.6% (Brewin et al., 2022; 2020) and nearly 24% of firefighters in the UK meet the diagnostic criteria for either probable post-traumatic stress disorder (PTSD) (Langtry et al., 2021). Karatzias et al. (2020) found that 17.7% of a nationally representative sample of the general adult population of the Republic of Ireland also met diagnostic requirements for PTSD. This study was repeated in the UK (Shevlin, 2020) and unveiled similar findings of 16.8% prevalence of PTSD in a general population sample. The implications of the possibility of undiagnosed trauma in so many are manifold and include the need for consideration of developing more appropriate and effective therapies which can be made accessible to these individuals.

One such promising therapy is Acceptance and commitment therapy (ACT) has been shown to be effective in reducing levels of trauma and increasing levels of psychological flexibility (PF)(PF is explained in depth below) in adults (Hayes et al., 2006; Kashdan & Rottenberg, 2010) and also in adolescents in the community (Livheim et al., 2020), but to date there have been no studies incorporating the use of remote ACT for young people in the UK. This study aims to address this gap which is particularly relevant when emotional support and interventions are arguably needed more than ever due to COVID-19-related stress.

PTSD and complex trauma

Many argue (Drell & Larrieu, 1995; Teicher et al., 2003; Meyers, & Putnam, 2003; Karatzias et al., 2019) the construct of PTSD does not adequately capture all elements of post traumatic psychopathology, particularly in children and that although it is appropriate for diagnosing single event trauma PTSD is not sufficient to diagnose repeated trauma experienced due to neglect, or sexual abuse or childhood traumas. Herman (1992) coined the phrase complex PTSD in her book 'Complex PTSD: A syndrome in survivors of prolonged and repeated trauma'. Complex PTSD (CPTSD) has continued to be developed as a concept.

Van Der Kolk (2005) proposed an additional definition for DSM-V of 'developmental trauma'. He argued that many psychiatric problems in adolescence and adulthood such as substance abuse; borderline and antisocial personality disorders; as well as Sexual, somatoform, eating, dissociative, cardiovascular, metabolic, immunological, and affective disorders can be traced back to childhood physical and sexual assaults and neglect (Van Der Kolk, 2009 p226). Van Der Kolk posits that developmental trauma prepares the psychological landscape for unfocused responses to subsequent stress (Cicchetti &Toth, 1995), which in turn leads to significant increases in the accessing and use of medical, correctional, social, and mental health services (Drossman et al., 1990).

The DSM V rejected Van Der Kolk's proposal however the ICD-11 (WHO, 2019) eventually responded to the call for reconsideration of Trauma definitions and thus elaborated their definition as follows.

The newly listed ICD-11 construct lists the more complex symptoms of CPTSD as distinct from PTSD and as resulting from exposure to chronic trauma (see Table 1). The following is the diagnostic criteria for CPTSD as taken from ICD-11 (2018). All the diagnostic requirements for PTSD must be met but in addition, Complex PTSD is characterised by

three additional strands which are severe and persistent: 1) problems in affect regulation; 2) beliefs about oneself as diminished, defeated or worthless, accompanied by feelings of shame, guilt or failure related to the traumatic event; and 3) difficulties in sustaining relationships and in feeling close to others. These symptoms cause significant impairment in personal, family, social, educational, occupational or other important areas of functioning. These additional strands go some way to identifying a proportion of children who have experienced multiple ACE's but it may not yet be an exhaustive diagnosis (Kira 2021; 2022). (Kira's new taxonomy of trauma is introduced later in the text.)

Trauma comorbidity

Trauma is known to have a very high levels of comorbidity, particularly with anxiety disorders, substance use disorder and major depressive disorder (MDD) (Flory & Yehuda, 2015). It is well documented that there is a strong comorbidity of PTSD and depression (Keane & Wolfe, 1990; Kessler et al., 1995; Flory & Yehuda, 2015). Two possible explanations for this are that it could: a) be a simple unrelated overlapping of symptoms or b) it could be that a phenotype of PTSD sufferer exists, potentially a sub-type of PTSD which points to the possibility that trauma increases risk towards other mental health issues. Between 62% and 80% of individuals diagnosed with PTSD also meet criteria for at least one other disorder (Davidson & Fairbank, 1993) and many individuals in the general population go undiagnosed.

Risk factors and comorbidities are significantly higher in those suffering from CPTSD than PTSD (Cloitre, 2013) and CPTSD is a more common, comorbid, debilitating condition compared to PTSD (Karatzias et al., 2019), but currently little is known about effective interventions for CPTSD. CPTSD is more strongly associated with symptoms of major depressive disorder, general anxiety disorder, chronic illness and alcohol use disorder than PTSD alone (Karatzias et al., 2019), and borderline personality disorder and suicidality is also more prevalent in CPTSD populations than PTSD (Hyland et al., 2018).

Current theory models around CPTSD propose that interpersonal trauma exposure, particularly in childhood, is an independent risk factor for CPTSD (Cloitre et al., 2013; Hyland et al., 2018; Karatzias et al., 2017). Its negative effects on health and wellbeing are considered to be primarily because it compromises children's ability to master certain developmental tasks such as affect regulation and secure attachments successfully (Cicchetti & Toth,1995). Interpersonal trauma also compromises the development of neurobiological processes and systems that are crucial for regulating stress responses, arousal, emotion and reward processing (McLaughlin et al., 2011). The high level of comorbidity means that the study of CPTSD in itself is highly complex and problematic to research effectively and the only recently developed definition of the construct means that this is a relatively young and unexplored field.

Pandemic as trauma stressor

Although the COVID-19 pandemic does not fit diagnostic criteria within the prevailing models of PTSD nevertheless there is emerging evidence that as a 'traumatic stressor'' it has contributed towards PTSD like symptoms for many individuals in recent years. The Office for National Statistics (ONS, 2021) shows increased depression rates from of 10% of British adults pre-COVID-19 (March 2020) to 21% mid COVID-19 pandemic (March 21). Young people in particular have shown to be detrimentally affected. For younger adults aged 16 to 39 years, although rates in summer 2021 were lower (23%) than early 2021 (29%) they were still more than double in comparison to pre-pandemic levels (11%) (ONS, 2021).

Bridgland et al. (2021) conducted an online study (N = 1,040) in five western countries. Participants were asked to indicate the COVID-19 events they had been directly exposed to, events they anticipated might happen in the future, as well as other types of indirect exposure such as through media coverage. They then asked participants to complete the Posttraumatic Stress Disorder Checklist (Blevins et al., 2015) adapted to specifically measure traumatic reactions as relating to COVID-19. Their results support emerging

research that COVID-19 can be understood as a traumatic stressor event capable of eliciting PTSD-like responses and exacerbating other related mental health problems such as anxiety, depression and psychosocial functioning. Further, Horesh and Brown (2020, p. 332) describe COVID-19 as a ‘‘mass traumatic event’ and recommend that we address these serious issues which are emerging and threatening to influence trauma experience for many, both now and far into the future. They call for a rapid testing and development of interventions for COVID-19 related stress.

One promising new theoretical development is a new taxonomy of stressors and traumas as proposed by Kira (2021; 2022) which is not discussed in depth here but contributes towards the movement for a new emerging paradigm of a ‘trauma focussed lens’. The taxonomy includes multiple systemic levels where trauma can infiltrate an individual’s experience. The taxonomy includes:

- pre-identity stressors (complicated birth, attachment)
- identity stressors (personal physical, social, racial)
- aging stressors
- systemic stressors, split into group A (institutions and governments) and group B (recession, global warming)
- environmental stressors, split into group A (natural disasters, e.g. earthquakes and hurricanes) and group B (biological/pathogenic, e.g. pandemic).

This taxonomy is comprehensive and acknowledges that each of these levels can overlap and indeed compound effects of other levels and this must be taken into account when considering where an individual fits into the taxonomy, it also allows for environmental elements such as pandemic to be considered.

Having postulated that the Pandemic has likely influenced levels of trauma symptoms in the general population and acknowledged the comorbidity which exists alongside trauma, the

question must be asked: how might this have affected the youth of our population who have lived through the same traumas but having done so in a pivotal developmental stage of their lives? Orben et al., (2020) posit that adolescents (10 to 24 year olds) may have been disproportionately adversely affected by COVID-19 due to social deprivation at a developmental time which requires social interaction for healthy development. Magnetic resonance imaging and functional magnetic resonance imaging have produced much evidence to show that the brain continues to develop at its most neuroplastic rate into the 20's and even 30's (Sawyer et al., 2018). How have the nation's young people been affected? And have they potentially been exposed to a huge traumatic stressor at a pivotal time in their lifespan which could lead to long-lasting effects for the rest of their lives?

Trauma in young people

Youth is a critical period as this is the time of onset for many mental illnesses (Fuhrmann, Knoll & Blakemore, 2015) and adolescence in particular is known to be a period of dramatic physical and neurological growth and development. However there is debate about when this highly neuroplastic and influential growth period ends in adulthood. Adolescence was once thought of as the age of 13 to 19 with early 20's marking 'young adulthood'. However neuroscientific and social studies now define the period of adolescence as more realistically being from the age of 10 to 24 (Sawyer et al., 2018). Evidence from brain development studies has taught us more about cortical development and as a result maturation of the brain is now marked more likely as being in the early twenties (Giedd et al., 1999) with some arguing that this is extended until the age of 24 (Arain et al., 2013). Although neuroplasticity is known to generally be in effect throughout the life-span, nevertheless this adolescent development period is comparatively intense as it includes dramatically changing biological, social, psychological and environmental factors. The outcomes of this intense period of development could be said to be highly influential on the remaining life course of the individual. Importantly, Arain et al. (2013) argue that dendritic pruning and myelination are functionally extremely important for accomplishing efficient maturation in the adolescent

brain. The fact that synaptogenesis and synaptic pruning undergoes crucial development until the age of 24 shows this is a highly neuroplastic timeframe and means that within this age span individuals are highly adaptable and *have* huge potential for growth. This also means that this is an intensely neuro-fluid time where neural-pathways that are laid down can form more permanent pathways for adulthood. Unfortunately, this lays open the possibility for neurotoxic insult, trauma, chronic stress, drug abuse, and sedentary lifestyles and trauma to have a potentially negative and life-long lasting impact on outcomes for that individual. This neuroscientific perspective informed the current research study to determine to recruit 18- to 24-year-olds as these participants would still be within the timeframe where neuroplasticity and brain development may be at optimum levels and thus could potentially lead to greater growth and longer-term life-time benefits. If traumatic experience is left untreated the results can even lead to structural development changes in the brain, as explained following.

Brain structure and CPTSD

Brain structure and activity is affected by early or repeating trauma. Kitayama et al. (2006) identified the anterior cingulate cortex to have diminished development in groups where repeated abuse had occurred and also identified the corpus callosum (which controls inter-hemispheric communication of many processes, including arousal and emotion) of individuals who had experienced maltreatment as being smaller in volume compared to healthy controls (Kitayama et al., 2006). Hippocampal dysfunction and reduced volume has also been associated with PTSD MRI studies. This is likely a result of a disrupted HPA axis resulting from continuous high cortisol levels. But in addition, brain-derived neurotrophic factor (BDNF), which plays an essential role in plasticity and neurogenesis, also suffers adverse effects from disrupted HPA axis, leading to reduced production and further atrophy of the hippocampus (Berton & Nestler, 2006).

Brain imaging studies have shown that certain areas of the brain show reduced or increased activity during PTSD arousal. One pattern in traumatised brains is that the left hemisphere (an area integral to fear processing) becomes activated when traumatic memories are recalled (van der Kolk, 2015, p. 254). The limbic system, particularly the amygdala, is known to be the 'fear centre' of the brain and is known to mediate PTSD symptoms. Nicholson et al. (2016) measured amygdala connectivity before and after a 30-minute alpha de-synchronisation process. They showed that employing electroencephalogram neurofeedback to disrupt alpha waves resulted in activity shifting from the left hemisphere to the right medial pre-frontal cortex (an area known to be implicated with emotion regulation and modulation). This also showed to be associated with reductions in hyperarousal and PTSD symptoms.

Another area seen to be affected by early trauma (Cracco et al., 2020) is the temporal parietal junction (TPJ), which is associated with Theory of Mind (ToM) and perspective taking. Trauma survivors exhibit reduced TPJ activity as well as less activity between the TPJ and the pre-frontal cortex. As well as neurobiological outcomes of trauma here mentioned there are other comorbid factors such as Neuro-endocrinological factors which youth are vulnerable to which are outlined below.

Neuro-endocrinological factors of CPTSD

Research has shown that early traumatic experiences can result in disrupted optimal development and lead to maladaptation of brain development, physiological stress responses and behaviour, all of which converge into increased disease risk (Heim, 2020).

Oxytocin is a neurohormone which has long been known to positively ameliorate stress in mammals (Panksepp, 1998). Absence of oxytocin during development detrimentally affects brain development (Tarrier, 2006, p. 100) and low levels during times of stress can also exacerbate negative effects of trauma. Heim et al. (2008) examined the cerebrospinal fluid

(CSF) of 22 women categorized into those with none–mild versus those with moderate–severe exposure to varying experiences of childhood neglect or maltreatment. Their findings were that oxytocin levels in CSF were significantly lower in those with higher incidence of childhood trauma.

Research also identified a glucocorticoid resistance, developed after early trauma, which can affect the feedback loop, leaving a trauma survivor with lower levels of tolerance for stress cues (Heim et al., 2008). As well as Neuro-endocrinological factors of trauma here mentioned there are other comorbid factors which young people are also exposed to which are described next.

Youth, trauma and comorbidity

Kim-Cohen et al. (2003) showed in a longitudinal study that 73.9% of adults with mental disorders were diagnosed before age 18 and 50.0% before age 15. Importantly, it is thought that psychiatric disorders may be triggered by stress or trauma in childhood or adolescence (Takizawa, Maughan & Arseneault, 2014). Several studies have demonstrated that young people exposed to trauma-induced stress are more susceptible to developing mood disorders, psychotic disorders and post-traumatic stress disorder (PTSD) (Gil et al., 2009).

Unfortunately, the more ACEs and traumatic experiences an individual lives through, the higher the incidence of not only poor mental health outcomes, but also poor socioeconomic and physiological outcomes. The longer that trauma symptoms impact on a young person's life, the more negative the impact on recovery rates. There is a higher incidence of anxiety, depression and addiction being found in populations where untreated trauma from ACEs have occurred. Trauma experiences are reported to have a dose-dependent relationship with the probability of homelessness (Bassuk et al., 2001) and half of all individuals who have experienced homelessness have also experienced four or more ACEs (Bellis et al., 2014). Trauma can be present behind many adverse presentations, yet little specialised help

is available and often there is a long waiting list for such treatment. Studies commonly find elevated rates of childhood trauma in incarcerated cohorts and offender groups, e.g. the Reavis et al. study (2013). In fact, ACEs have been shown to affect social and health outcomes adversely and to even reduce life expectancy by as much as 20 years where a high number of ACEs were experienced (Leitch, 2017).

Clearly, prevention is preferable than waiting for these poor outcomes to play out. Timely intervention at a key developmental point in young people's lives as soon as possible after the trauma has occurred could improve these outcomes. Statistics show an increase in poor mental health outcomes for young people in recent years as suicide is currently the fourth leading cause of death in 15-29-year-olds (WHO, 2022) and there exists a concern for the lack of access to therapy for these individuals when they need it most. Unfortunately, individuals who have experienced a high number of ACEs often remain undiagnosed within the general population. Much of the trauma related research undertaken has been aimed at those who meet clinical criteria for a PTSD diagnosis. However there appears to exist a hidden population of trauma sufferers. According to Gerger et al. (2014) a large proportion of the general population are trauma survivors -between 40 and 90%- (Breslau et al., 1991, 1998; Kessler et al., 1995; Bernat et al., 1998) and many of these go on to suffer chronic trauma symptoms despite not meeting clinical PTSD criteria. These figures were pre-pandemic and so figures are likely to be even higher post COVID-19.

Protective factors

Just as there are factors which can predispose individuals towards an increased risk of developing PTSD or CPTSD (such as the number of ACEs experienced by an individual), similarly there are also protective factors which can ameliorate the effect of trauma. Indeed this ability to cope after stressors could be termed 'resilience', the ability to bounce back and recover after adversity. Ungar (2008) defines resilience as: "In the context of exposure to significant adversity, whether psychological, environmental, or both, resilience is both the

capacity of individuals to navigate their way to health-sustaining resources, including opportunities to experience feelings of well-being, and a condition of the individual's family, community and culture to provide these health resources and experiences in culturally meaningful ways".(Ungar, 2008, p 225).

There are many factors which contribute to resilience and some are significantly related to positive family and peer relationships (Hadfield & Ungar, 2018) other factors are related to social support which is available to the individual post traumatic stressor (Kroska, Miller, Roche, Kroska, & O'Hara, 2018; Usami et al., 2019). Other protective factors linked to recovery from trauma are associated with individual personal skills and abilities such as meaning making, dispositional optimism, PF, and an active coping style (Ungar, 2021).

In particular PF has been identified as an internal process which mediates outcomes after trauma (Skowron, Fingerhut, & Hess, 2014) and shows promise as a mediating factor which can be developed in therapy. Therefore PF was selected as a primary construct to be studied in this research.

Psychological flexibility

PF is a set of dynamic processes describing an individual's patterns of interacting with their environment. It is defined as the ability to "recognize and adapt to various situational demands; shift mindsets or behavioral repertoires when these strategies compromise personal or social functioning … and be aware, open, and committed to behaviors that are congruent with deeply held values" (Kashdan & Rottenberg, 2010, p. 467). PF is increasingly seen as a positively mediating factor for symptoms of trauma and other mental health conditions. The literature supporting PF and its relationship to trauma and co-morbid presentations in adults is increasing, yet there is very little research looking at these aspects, less so with young people, and even less with regard to remote therapy.

An absence of PF manifests in experiential avoidance (EA) and a rigidity of internal relating to self and others, which can maintain dysfunctional behaviours. There is growing evidence linking EA with a variety of behavioural problems, psychopathology (Kashdan & Rottenberg, 2010) and maintenance of trauma symptoms (Bonanno & Burton, 2013). Importantly, PF has been shown to have mediating effects for trauma (Bonanno & Burton, 2013).

The theory and therapy associated with the construct of PF most strongly is Acceptance and Commitment Therapy (ACT) (Hayes, Strosahl & Wilson, 1999) (Act is introduced more fully below). As this research was aiming to provide an intervention to young people who were experiencing trauma symptoms and PF is strongly identified as a potential protective factor, ACT was the approach chosen as the remote intervention and is discussed more fully later in the thesis. PF has been studied as a mediation factor for early life trauma (ELT) (Richardson & Jost, 2019) and in that study a partial mediation model was supported for PF being a mediator for depression and PTSD symptoms. Richardson suggests that PF may facilitate coping with ELT and improve resilience to negative psychological outcomes of trauma. These studies point to PF being a promising target for therapeutic intervention in relation to trauma, but as yet there is limited evidence for efficacy of ACT with trauma.

ACT

ACT theory

ACT is an increasingly popular third-wave CBT, grounded in functional contextualism, a type of psychological pragmatism. A transdiagnostic approach found to mediate in particular the construct of PF, ACT works through thought processes and metacognitive concepts, placing emphasis on defusion of unhelpful thoughts, re-framing through context, acceptance through mindfulness and conscious taking of action towards an individual's deep, intrinsic values (Hayes et al., 2016). The six core processes underpinning its philosophy are together named the *hexaflex* (see Figure 2). PF is seen not just as a construct but as a unified model

approach to suffering in individuals (Hayes et al., 2016). Therefore, it has its own dedicated theory and ontology.

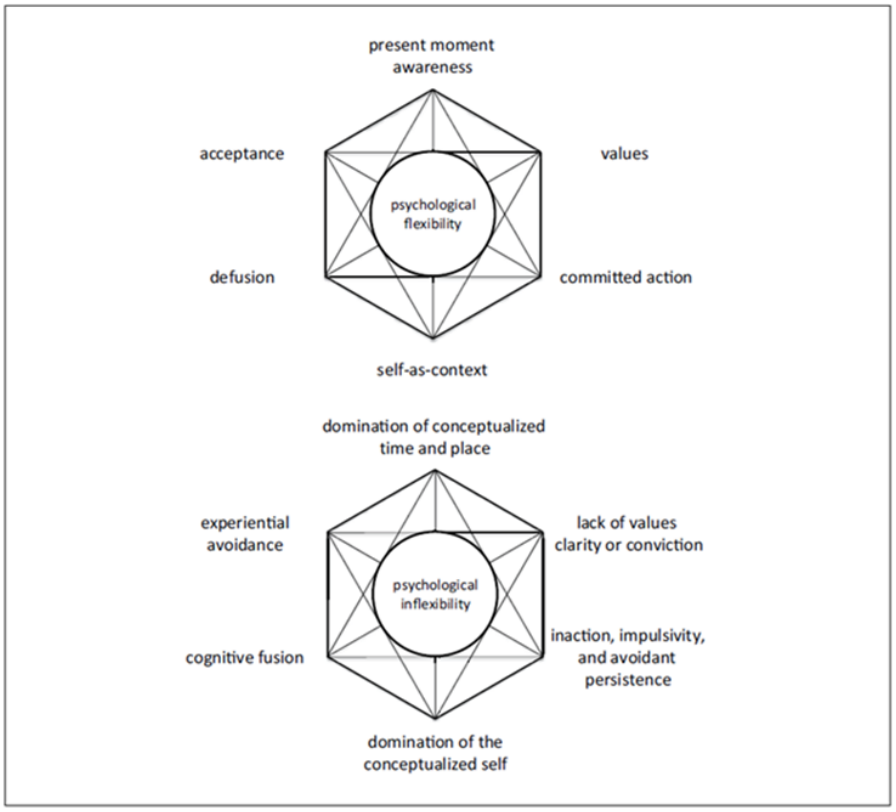

Figure 2. The PF hexaflex (top) and inflexahex (bottom) repertoires (Wiggs & Drake, 2016).

ACT processes

The six core processes underpinning the philosophy of ACT are together named the *hexaflex* and are as follows:

1. contact with the present moment
2. values
3. committed action
4. self as context
5. defusion
6. acceptance.

ACT philosophy, suggests that mental suffering is directly related to psychological inflexibility, the premise being that, while we cannot change the difficult things that happen to us, we *can* change our internal response to them, which in turn benefits our emotional and physical well-being. This approach differs from the paradigm of medicalisation and 'fixing' people who are 'sick', and rather allows people to understand themselves better so they can choose different internal and external behaviours and mindfulness (discussed in more detail below) is a large component of ACT philosophy.

ACT research

At the time of writing there have been at least 250 randomised controlled trials (RCTs) of ACT. This has enabled both meta-analyses and systematic reviews, 40 of which have been conducted to date. * Literature around ACT research is more fully explored in the extended introduction and methodology.

Aims

The primary aims of this study were to investigate whether there were mediating effects of PF on trauma and comorbid presentations and behaviours of young people during a pandemic. Additionally, the study will test whether PF is a mediator for post-traumatic growth, personally defined proactive behaviours and quality of life for young people.

Therefore, the objectives of this study are:

1. To examine effects of a remotely delivered ACT-based integrative intervention on self-report and behavioural measures of young people experiencing trauma symptoms during a pandemic, specifically in relation to PF and core processes of the model underpinning ACT.
2. To ascertain whether increased PF positively mediates behaviours towards individually selected goals or improves quality of life.

3. To begin to assess acceptability and feasibility of remote trauma-focussed ACT for this population.

Research Design

Choice of method and analysis

This was a mixed method study. The quantitative aspect of the study followed the single-case research design (SCRD). A fixed mixed-methods multiple case series following a staggered ABC format was used, with A representing the setting of baseline period, B representing the intervention phase and C representing an interview and final batch of measures collected after a period of time had passed following the ending of therapy, 4 weeks to 2 months later.

Quantitative strand

Outcome measures

Case-study design has been shown to be more exploratory and relevant to individual change when many variables are measured with an open attitude as to what may have been significant for the individual (Morley et al., 2018). So, although the main process outcome of psychological flexibility was of key interest, as well as any mediating effect this may have on trauma symptoms, it was seen as beneficial to take several other measures which research has shown to be linked to PF in order to capture as much data as possible in order to understand how ACT may have been impactful, useful or, indeed, unhelpful to individuals. All the measures that were used have been outlined below.

International Trauma Questionnaire (ITQ) (Cloitre et al., 2018)

As mentioned earlier, the WHO's definition of PTSD was updated and a new construct of CPTSD was created in 2019. The newly termed construct of CPTSD comprises the original six PTSD symptoms plus six other symptoms termed "disturbance in self organisation" (DSO) symptoms. Each group of symptoms has three subgroups. The PTSD cluster

comprises re-experiencing of the trauma in the present, avoidance due to the trauma and a sense of current threat. The CPTSD cluster comprises the three PTSD subgroups then additionally three subsets that represent DSO symptoms: affective dysregulation, negative self-concept and disturbances in relationships. For the diagnosis of PTSD or CPTSD to be fulfilled, there is also a requirement of traumatic exposure and significant impairment in functioning to be present. Participants were asked to indicate how much they have been bothered by each of their core symptoms in the past month, considering their most traumatic event, using a five-point Likert scale ranging from *not at all* (0) to *extremely* (4).

To qualify diagnostically for PTSD, a score of ≥2 (*moderately*) for at least one of two symptoms from each of the re-experiencing, avoidance and threat clusters are required, and at least one functional impairment item must be measured (≥2).

The ITQ was used as a trauma symptom measure in order to differentiate between PTSD and CPTSD symptoms. The participants were a treatment-seeking sample who considered themselves to be affected currently by past or current trauma (including the global COVID-19 pandemic). As the study is not primarily aimed at reducing symptoms and is focused on the transdiagnostic approach of the ACT intervention, it was still seen as useful to use standardised measures in order to monitor changes in participants' perceived experience and quality of life in order to determine if any second order change due to increased PF may lead to changes in experiences of all measures. Both PTSD and CPTSD symptom scores were recorded throughout to show any change in either direction of trauma experience, despite CPTSD scores normally being clinically discarded if PTSD levels are not met.

CompACT

PF was measured via the CompACT (Francis, Dawson & Golijani-Moghaddam, 2016). The three factors of the CompACT (openness to experience, behavioural awareness and valued action) were arrived at by considering the six core processes within the original ACT

hexaflex (Figure 1) and categorising and re-grouping these down into the “triflex” (Harris, 2009). The three aspects of the triflex are commonly termed “being open”, “noticing” and “being active”. An exploratory factor analysis suggested a theoretically coherent three-factor structure (clustering ACT’s six processes into three dyadic processes) for a 23-itemed version of the CompACT. Scores are derived by summing responses for each of the three subscales (openness to experience, behavioural awareness and valued action) or the scale as a whole (CompACT total score). Although the triflex terms are slightly different the concepts relate directly to the compACT of which overall Cronbach's Alpha was 0.91. In previous studies high levels of internal consistency were found for the PTSD items (α = 0.88), the DSO items (α = 0.90) and the total scale (α = 0.91) (Murphy et al., 2020).

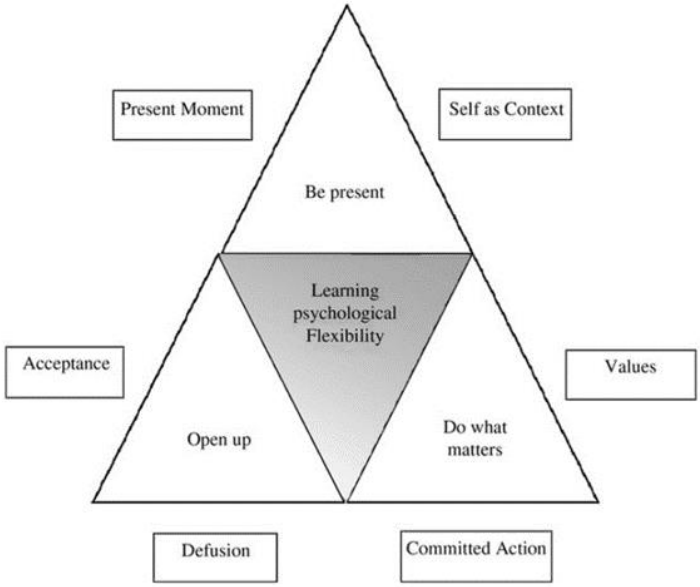

Figure 15. Diagram showing the triflex, which has developed from the ACT hexaflex (from Harris R. ACT made simple: an easy to-read primer on acceptance and commitment therapy. Oakland (CA): New Harbinger Publications; 2009. p. 13; with permission.) The six hexaflex processes are combined and reallocated to three areas of focus: being present, opening up,

GAD-7

The GAD-7 (Spitzer et al., 2006) is a seven-item, self-report anxiety questionnaire designed to assess the patient’s health status during the previous two weeks. The items ask about the degree to which the patient has been bothered by feeling nervous, anxious or on edge, not

being able to stop or control worrying, worrying too much about different things, having trouble relaxing, being so restless that it is hard to sit still, becoming easily annoyed or irritable and feeling afraid as if something might happen. It demonstrates good reliability, as well as criterion, construct, factorial, and procedural validity (Spitzer et al., 2006). A cut point was identified that optimised sensitivity (89%) and specificity (82%). The GAD-7 is a valid and efficient measure used frequently in clinical practice.

PHQ-9

The internal reliability of the PHQ-9 (Kroenke et al., 2001) has been shown to be excellent, with a Cronbach's α of 0.89 and 0.86 in two retrospective studies. Test–retest reliability of the PHQ-9 was also excellent; correlation between the PHQ-9 completed by patients in the clinic within 48 hours was 0.84, and the mean scores were almost identical (5.08 vs 5.03) (Kroenke et al., 2001).

Emotional Regulation Questionnaire (ERQ)

The ERQ is a ten-item self-report questionnaire based on Gross's (1998) process model of emotion regulation. It is a commonly used measure of emotion regulation, specifically two emotion regulation strategies: cognitive reappraisal (changing the way one thinks about potentially emotion-eliciting events) and expressive suppression (changing the way one responds behaviourally to emotion-eliciting events) cognitive reappraisal to regulate emotions is generally associated with healthier patterns of affect, social functioning, and well-being than expressive suppression is. In a recent study (Preece et al., 2020), confirmatory factor analyses in each sample demonstrated that the traditional two-factor model (comprising cognitive reappraisal and expressive suppression factors) was replicable and an excellent fit to the data. In all samples, ERQ cognitive reappraisal (α = .89-.90) and expressive suppression (α = .76-.80) (Preece et al., 2020) scores had acceptable to excellent levels of internal consistency reliability.

Rumination Response Scale (RRS)

The RRS is a 2 factor model developed from the response styles questionnaire (RSQ; Nolen-Hoeksema & Morrow, 1991). It consists of 22 items that assess responses to dysphoric mood that are focused on the self, on symptoms, and on possible causes and consequences of moods. The internal consistency of this scale (Cronbach's alpha) was .89.

Support for this two factor model of rumination was found by Treynor, Gonzalez, & Nolen-Hoeksema, (2003). These analyses indicate that the 2 components, reflective pondering and brooding, are differentially related to depression in regard to predictive ability and gender difference mediation.

Quality of Life Scale

First developed by American psychologist John Flanagan in (1978) and since updated by Burckhardt and Anderson (2003), the Quality of Life scale (QOLS) is a self-reporting measure which identifies 16 domains such as health, work, friendship and independence. It has had high test–retest reliability over several studies (r = 0.78 to r = 0 .84) (Burckhardt et al., 1989) with clinical samples experiencing chronic illness as well as within samples of individuals suffering from obstructive pulmonary disease (Anderson, 1995). The 16-item QOLS satisfaction scale was also internally consistent (α = .82 to .92 (Burckhardt et al., 1989).

Post-traumatic Growth Inventory

The 21-item Post Traumatic Growth Inventory (PTGI; Tedeschi & Calhoun, 1996) gives an overall score for five subscales (range: 0–105): New Possibilities, Relating to Others, Personal Strength, Spiritual Change and Appreciation of Life. It is one of very few standardised and validated questionnaires on positive post-traumatic change.

Psychometric properties offer good internal consistency for the total scale (α = 0.91) and its subscales, ranging from α = 0.85 to α = 0.70 (Silva et al., 2018). Silva et al, in their sample of 300 Brazilian university students, also observed evidence of construct and convergent validity through correlations with posttraumatic and depression symptoms and personality, demonstrating validity of the scale.

Qualitative strand measure

A semi-structured interview called the change interview (Elliott et al., 2001), was administered post-intervention. The interview was administered after a time interval of four weeks to two months of the intervention ending. This was phase C of the ABC approach and included a full battery of all the measures.

Table 3

RCI and caseness threshold for PHQ-9 and GAD-7.

A - Measure	B -Diagnosis	C-Range	D -Reliable change index	E -Caseness threshold
PHQ-9	Depression disorders	0-27	≥ 6	≥ 10
GAD-7	Generalised anxiety disorders (and unspecified anxiety problems)	0-21	≥ 4	≥ 8

Note: Taken from NHS (2014). Improving access to psychological therapies: Measuring improvement and recovery adult services (Version 2)

Setting and procedure

Sampling considerations

Setting

The sample of 18–25-year-olds was chosen due to the implications of continued extensive brain development in this age group (Blakemore, 2018; Fuhrmann et al., 2015). The aim of

the study was to work with individuals who were still developing neurobiologically, with a view to improving outcomes of trauma, particularly in those who were yet to go through the final synaptic pruning stage of brain development. Optimum recovery from trauma was of interest to the researcher and in particular early intervention, before more possibly hard-wired responses to trauma-triggering stimuli may have been established in the individual. It was also thought that the COVID-19 pandemic, and the fact that many students would have been forced to make a change to online learning, may mean that a transition to online therapy might have been easier for this group of participants, who were now accustomed to using online platforms for learning.

Inclusion criteria were therefore students aged 18–25 who were living in the community in the UK, (due to opportunity sampling of City University students, all participants were currently living in london at least during term-term) who were experiencing low to severe levels of anxiety, who could identify at least one traumatic incident in their experience (identified as a feeling that they are still presently affected by a stressful event that happened in the past) and were capable of giving informed consent.

Participants were excluded if they were experiencing psychosis, as distorted perceptions of reality could have prohibited their ability to engage and process the intervention content. Those presenting with high risk of self-harm or suicidal ideation were also excluded from the research, as it was deemed inappropriate for the researcher to be working with this level of risk as a sole worker, without the support an organisation can bring to working with such clients.

Recruitment

Opportunity sampling was employed in order to recruit participants. Recruitment took place via an initial invitation email which was sent out to psychology undergraduates. Opportunity sampling was employed in order to recruit participants. Recruitment took place via an initial

invitation email which was sent out to psychology undergraduates. Students who expressed an interest were offered a telephone call to discuss the research and supplied with information sheet (see Appendix 2), as well as being invited to ask any questions they had. Participants were therefore all undergraduate students at City University. Any interested students then replied to the email and were sent a detailed information sheet about the study. Once they had read the information sheet, they had the opportunity to ask any questions via email, and if they were still interested they went on to fill in a Qualtrics questionnaire checking for suitability of trauma symptoms and levels and answered the built-in consent form. At all stages it was made clear that the participants could withdraw consent at any point but still continue with the therapy.

Any potentially suitable participants were then offered a telephone call by me to give an opportunity to ask further questions and to discuss the therapy contract should they decide to take part. A copy of the therapy agreement (see Appendix 3) was exchanged, and I then called any potentially suitable participants to give them an opportunity to ask further questions and to be set up on Pragmatic Tracker ready for screening. I had a special research account arranged to be set up through City University. (Pragmatic Tracker online software is a reliable GDPR (General Data Protection Regulation) (Information Commissioner's Office, 2018) -compliant and secure system as well as an approved data-collection and -storage system.) Initial screening consisted of the participant remotely completing several measures via Pragmatic Tracker to identify levels of anxiety, depression and trauma symptoms. Individuals who met the inclusion criteria were then selected for the study. Those students who met the inclusion criteria but were deemed to be unsuitable for a research study due to high levels of risk were signposted to suitable organisations for further support. (There was only one participant who fell into this category, as she presented high risk and was also currently receiving treatment through the NHS. She was emailed with details of other organisations who could offer her support once her current treatment phase ended, and she was also encouraged to contact her GP if the current support was not

meeting her needs.) After giving informed consent and having had an opportunity to ask any questions about the study, individual therapy contracts were then signed by each participant before the intervention commenced.

The recruitment process occurred in two batches, the first in April 2021 and the second in October 2021. Twelve people expressed interest in the study, all of them female. Eight met the inclusion criteria post-screening, and during the collecting of baseline measurements two participants were lost due to attrition. (Neither participant gave a reason for not completing the baseline measures.) This left six remaining participants who met the inclusion criteria and also completed all baseline measures.

Of the sample who had started therapy, four participants completed the six sessions and two participants dropped out of the study mid-way through, one because they felt they were not yet ready for therapy and another because they felt they could not commit to therapy at that time due to too many other stressors in their life. The sample was not reflective of the general population and this may have implications for generalisability of any results.

Quantitative analysis

Visual analysis

Visual analysis is commonly recommended to inspect single-case experimental design data (Smith & Gore, 2012, p. 521), so this was the primary method of analysis used. The researcher chose to utilise the Reliable Change Index (Jacobson et al., 1999), as it has demonstrated efficacy in calculating whether an individual's change is reliable and clinically significant (Morley et al., 2018). Many also advocate that the ecological validity of empirical findings using visual analysis can be further enhanced in naturalistic studies by employing baseline mean and trends (Bloom, Fisher & Orme, 2006; Kazdin, 2008). Therefore, visual

analysis using Fisher, Kelley and Lomas' (2003) dual technique employing baseline mean and trend lines was employed to inspect graph data to increase reliability (e.g., see figures 9,10, 11 and similar). Therefore, even though baseline stability was not always achieved, using the dual technique has been shown to reduce type 1 error rate. (Lanovaz & Primiani, R. (2023). This has further implications for ascertaining whether a treatment effect was observed.

Effect size calculation

There is currently no agreed single best method for calculating effect size in single case design. Kazdin (1978) suggests that

"The replication of nonoverlapping distributions during different treatment phases strongly argues for the effects of treatment."

Therefore, In this study, alongside visual analysis I employed percentage of non-overlapping data as recommended by Kazdin, (1978) and Tawney & Gast (1984).

Data collection

The use of standardised clinical measures such as GAD-7, PHQ-9, RRS, ERQ and PTGI were beneficial as they enabled referencing of each individual's responses compared to the general population (Morley, 2018). Analysis of GAD-7 and PHQ-9 was considered in light of clinical significance according to IAPT standards (NHS, 2014). Reliable change index (RCI) (Jacobson & Truax,1991) was used to calculate reliable change pre–post intervention.

Following analysis for clinically significant change, ACT process measures (from the Weekly ComACT questionnaires) were analysed further using visual analysis, to evaluate trend, level and stability, and was guided by recommended systematic procedures (Lane & Gast, 2014). The definition of trend is progress and direction over time, level as magnitude of the data, and stability as the variability or bounce of data (Gast & Spriggs, 2014).

Qualitative analysis: change interview

The change interview (Elliott et al., 2001) was 60 to 90 minutes long and was conducted and recorded over live Zoom sessions. These were then transcribed and analysed to be presented within a structured table. Data was analysed and synthesised alongside each individual participant's outcome measures to ascertain if any aspects of the therapy had been helpful or unhelpful and had either strengthened or weakened results and assumptions made on the basis of the quantitative data.

Framework analysis

Framework analysis was the method used to analyse the qualitative data from the change interview. From a functional contextualism perspective self-examination and reflection is perceived as a relatively unimportant focus and as such the change interviews provided additional information in order to supplement the quantitative data rather than an independent perspective into psychological change. Framework analysis is a form of content analysis sitting under the umbrella of qualitative methodology. Ritchie and Spencer (1994) developed the approach which is particularly germane for examining differences,similarities, and relational themes in the context of semi-structured interviews (King, Horrocks & Brooks, 2018).

Development of the integrative intervention: theory meets practice

The National Institute for Health and Care Excellence (2018) recommends exposure work, trauma-focused CBT (TF-CBT) or EMDR for PTSD, with TF-CBT being most commonly used as treatment for CPTSD (Cloitre et al., 2011). However, it has been shown that some CPTSD cases cannot be effectively treated by TF-CBT alone. I wanted to appropriately provide support to CPTSD participants also, so in an attempt to provide a theoretical background for the clinical work I developed the following approach, which utilised a combination of trauma therapy techniques including primarily ACT but also, where

necessary and appropriate, flavours of trauma-focused psychoeducation, narrative trauma therapy, and a heavy somatic element encompassing techniques such as havening (Sumich et al., 2022) and Somatic experience (Levine, 1977, 1997, 2010). My synthesised approach then became a three-pronged trauma approach which was based on the following theoretical structure for all therapy:

1. **Stabilisation**: Specifically within this intervention, this involved emotional regulation and ability to de-escalate intrusive thoughts and emotions. Somatic experiencing (SE), psychosensory techniques and mindfulness were at the forefront of this phase.
2. **Trauma processing**: using only a carefully titrated technique. Specifically within this intervention, this involved gradually empowering participants to safely feel able to either write down or talk about general aspects of their trauma as a start to beginning to process them.
3. **Re-integration**: Specifically within this intervention, this identified participants' intrinsic motivations and values for realistic change within the six weeks (based on clients' chosen goals for increased connection with others and decreased fragmentation of self).

Integrating bodywork techniques into ACT

Bearing in mind that stabilisation was a priority, multiple techniques in line with this three-pronged approach were used, as individually appropriate but developing a sense of safety and skills in emotional regulation came foremost. – for instance, creating a *safe place* with somatic anchoring and embodiment of this was used with all participants. In order that the participants had access to an internal stabilising resource while working remotely, this was one of the trauma-focused stabilisation techniques seen as essential. Another technique was dropping anchor (Harris, 2009), which was useful to bring a client safely back to the present if they became overwhelmed emotionally or began to experience dissociation

Results

Table 2
A summary of positive change across quantitative measures for all participants from baseline to follow-up.

Participant	GAD-7	PHQ-9	CompACT	PTSD	C-PTSD	PTGI	RSS	QOLS	ERQ
P1	✓	✓	✓	✓	✓	✓	✓	✓	✓
P2		✓		✓			✓		✓
P3	✓	✓	✓	✓	✓	✓		✓	✓
P4	✓	✓	✓	✓	✓	✓	✓	✓	✓

As illustrated in Table 2, one participant (P1) showed positive significant change in all measures from baseline to follow-up while another (P4) showed improvement in all but one measure and another (P3) showed improvement in all but two measures.

Main outcome of reliable change index

Table 4
Reliable change index (RCI) for all participants across all measures, pre-intervention to FU score.

Participant	GAD-7	PHQ-9	CompACT	PTSD	CPTSD	PTGI
P1	Significant decrease *	Significant decrease *	Significant increase *	Significant decrease *	Significant decrease *	Significant increase *
P2	Significant decrease*	Significant decrease*	Significant increase *	Significant decrease *	Significant increase -	Significant decrease
P3	No change	Significant decrease*	Significant increase *	Significant decrease *	Significant decrease *	Significant increase *
P4	Significant decrease*	Significant decrease*	Significant increase *	Significant decrease *	Significant decrease *	Significant increase *

Participant	ERQ	RSS	QOLS
P1	No change	Significant decrease	Significant increase*
P2	Significant increase	No change	No change
P3	Significant decrease	Significant decrease	Significant increase*

Participant	ERQ	RSS	QOLS
P4	Significant decrease	Significant decrease	Significant increase*

Between condition

The remote ACT intervention was the only experimental variable introduced across all the conditions.

Table 5
Percentages of non-overlapping data for each participant between baseline and intervention phase within the CompACT scores.

Participant	Percentage % of non-overlapping data for PF
P1	100
P2	28
P3	42
P4	100

Calculations of percentages of non-overlapping data, which is data in the intervention phase that is equal to or higher than the highest value in the baseline phase, illustrates that there was variance across participants ranging from 28% to 100%.

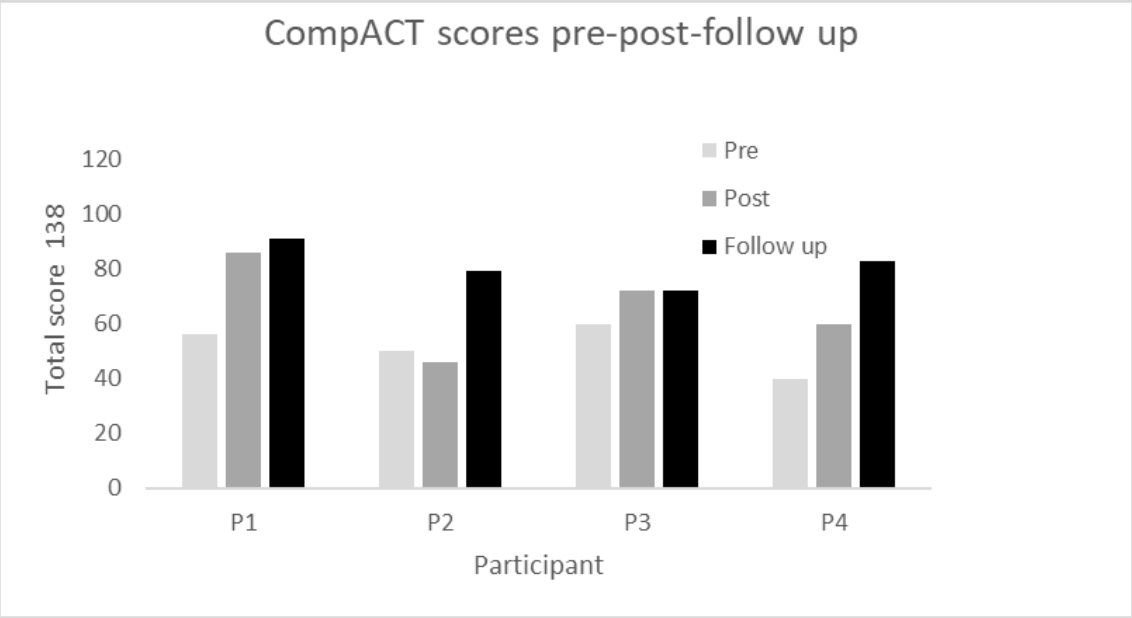

Figure 1. Bar graph showing comparison of each participant's PF scores over time. Improvements were demonstrated in every participant from baseline to follow-up.

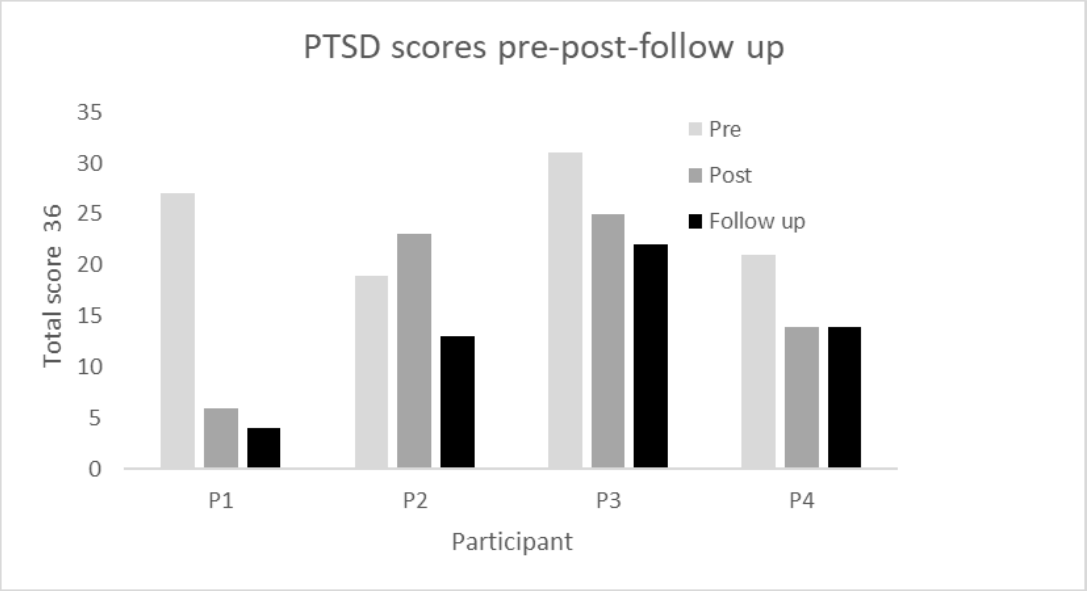

Figure 2. Bar graph showing a comparison of each participant's scores for PTSD over time. Improvements were demonstrated in every participant from baseline to follow-up.

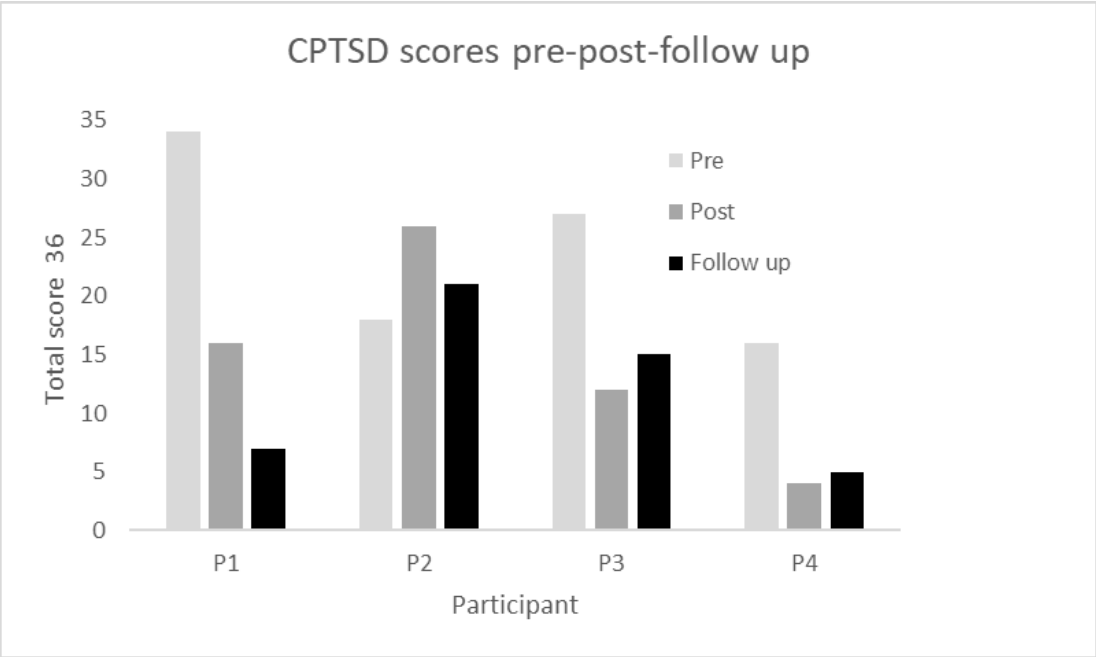

Figure 3. Bar graph showing comparison of each participant's CPTSD scores over time. Improvements were demonstrated in every participant from baseline to follow-up apart from Participant 2.

Quality of life

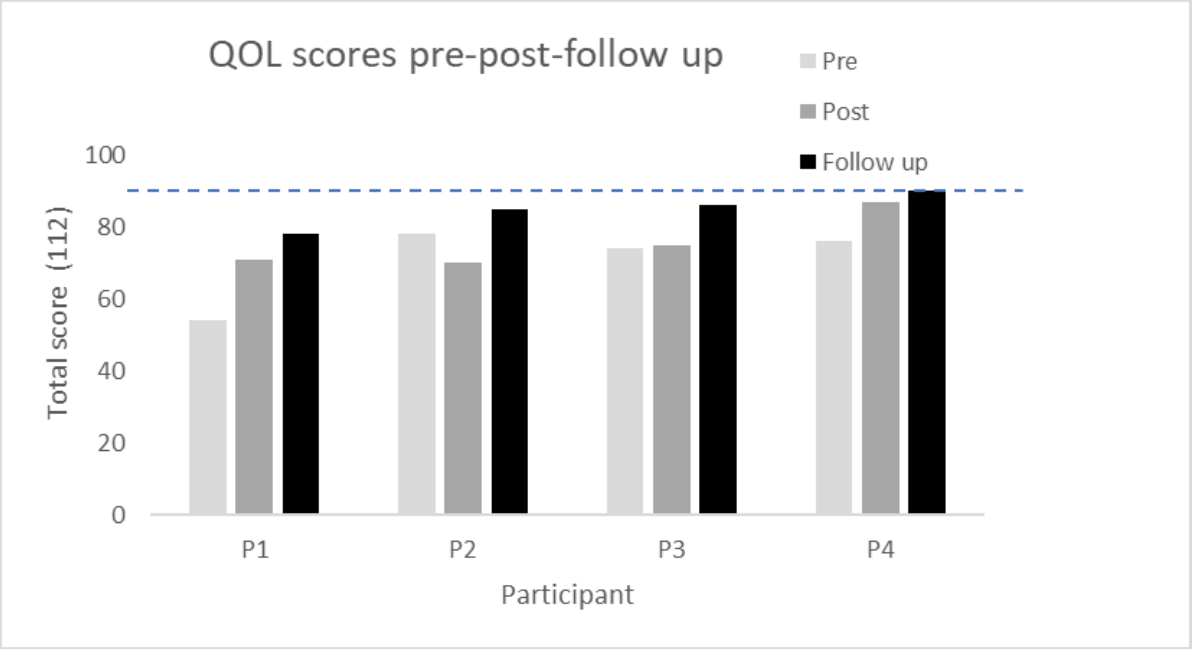

Figure 4. Bar graph showing QOL scores over time, and in relation to national average.
Note: Blue dotted line indicates average score in general population.

Ruminative response scale

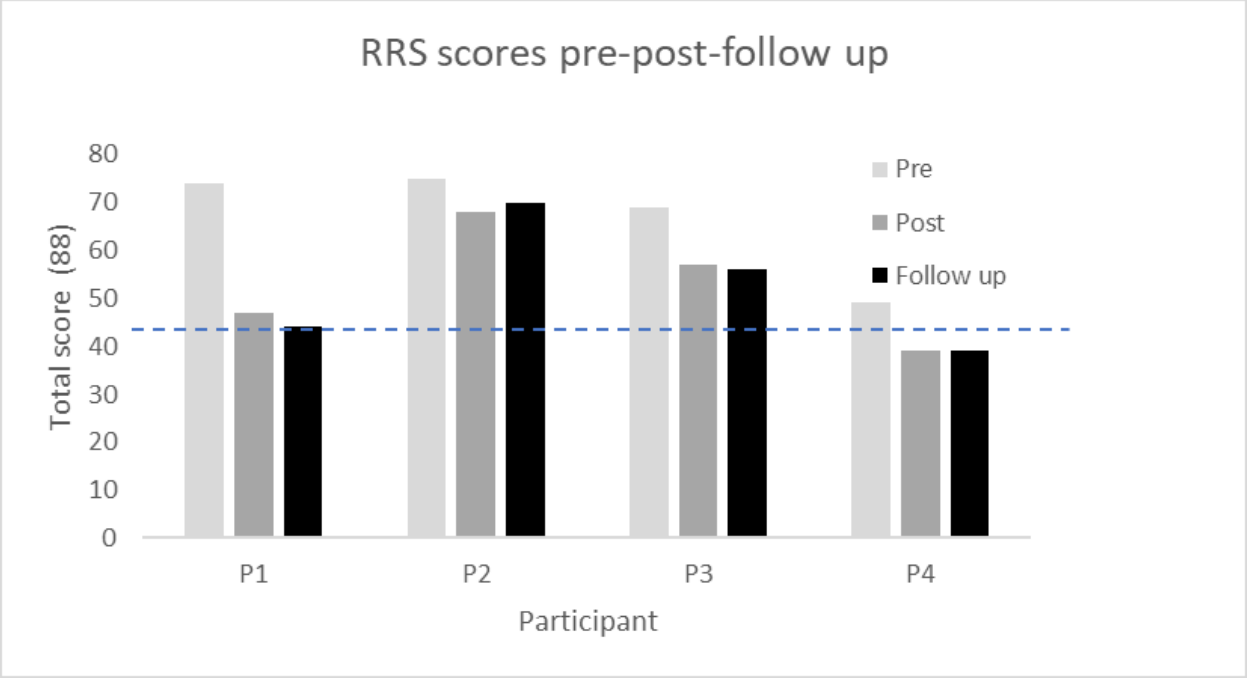

Figure 5. Bar graph showing RRS scores over time, and in relation to national average.
Note: Blue dotted line indicates average score for female in general population.

Post traumatic growth

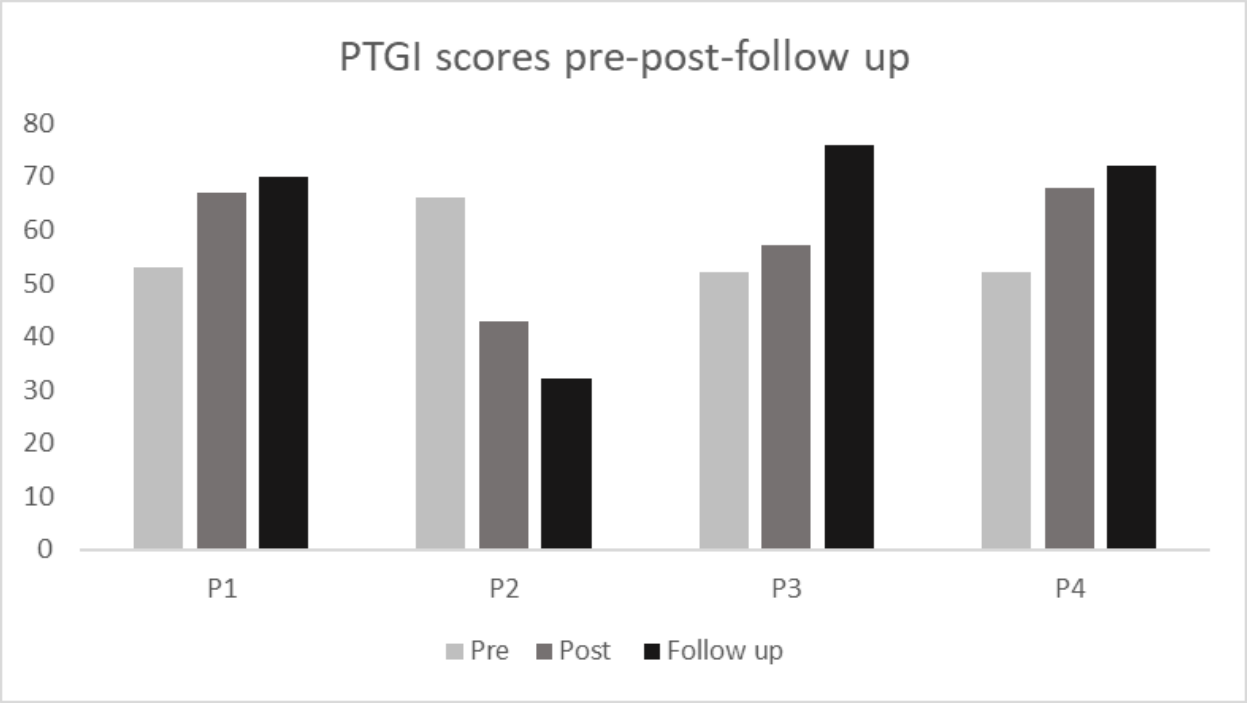

Figure 6. Bar graph showing PTG scores over time.

GAD-7

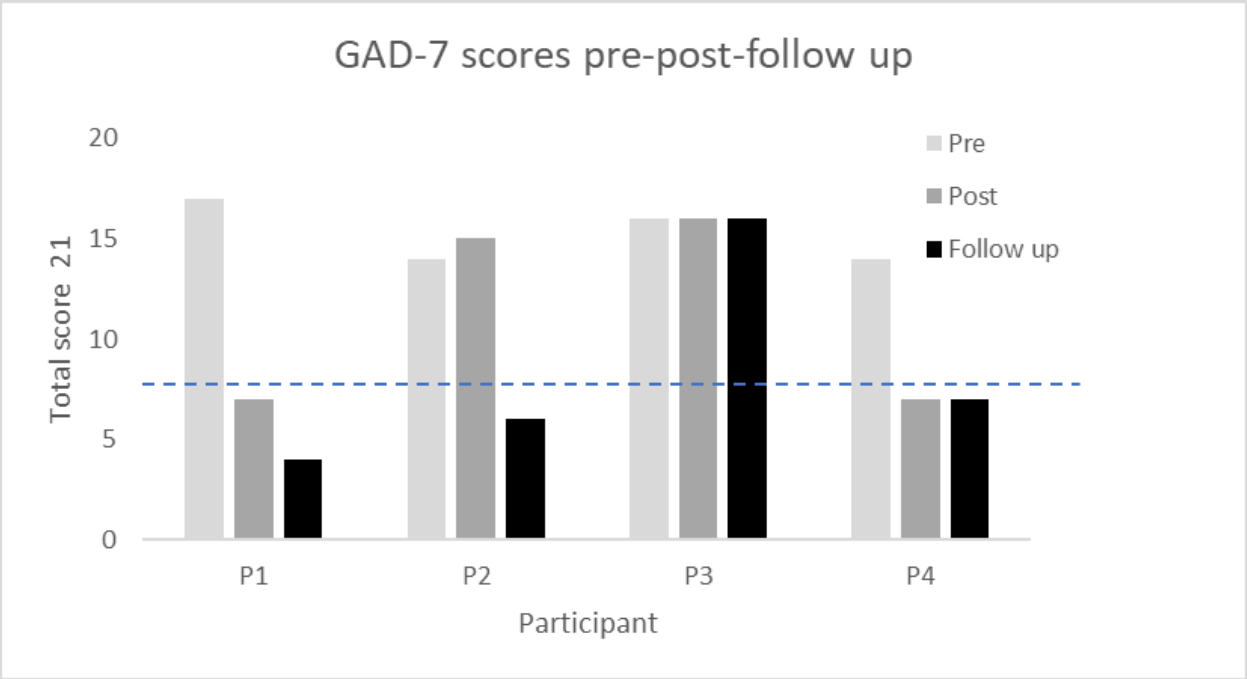

Figure 7. Bar graph showing GAD-7 scores over time, and in relation to national average. Note: Blue line shows clinical cut-off score.

PHQ-9

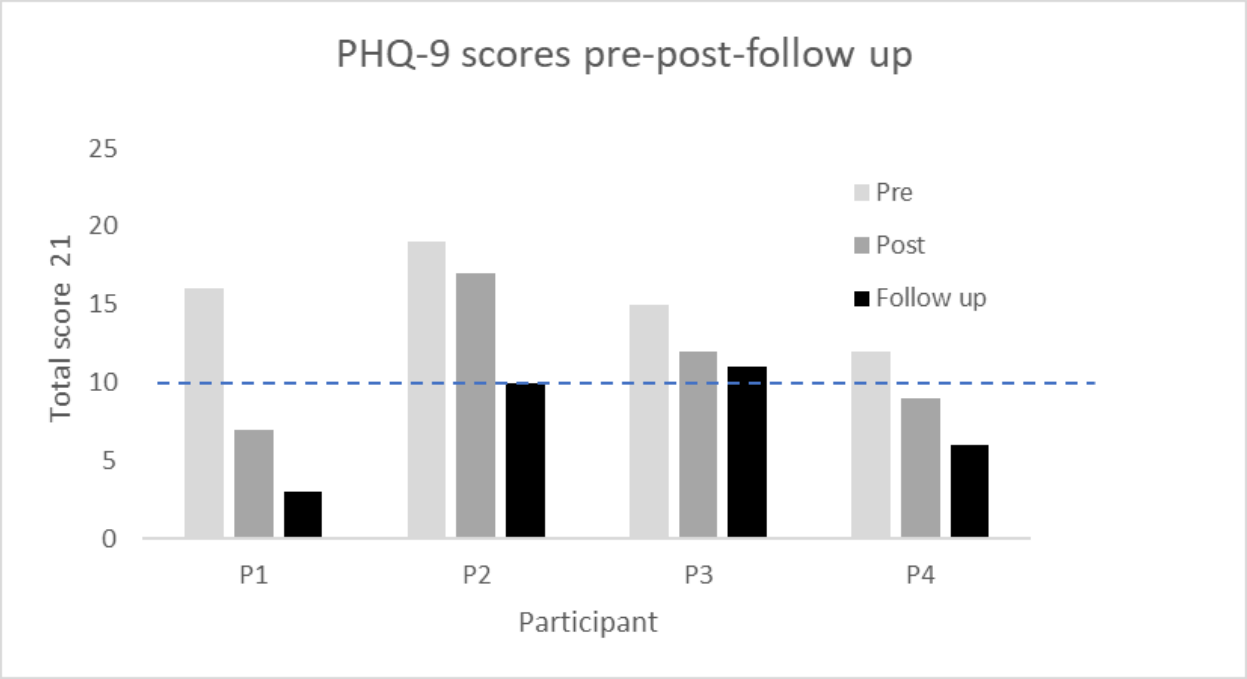

Figure 8. Bar graph showing PHQ-9 scores over time, and in relation to national average.
Note: Blue dotted line shows clinical cut off score.

Results by measure

Overall psychological flexibility

The following graphs show overall psychological flexibility per participant over time.

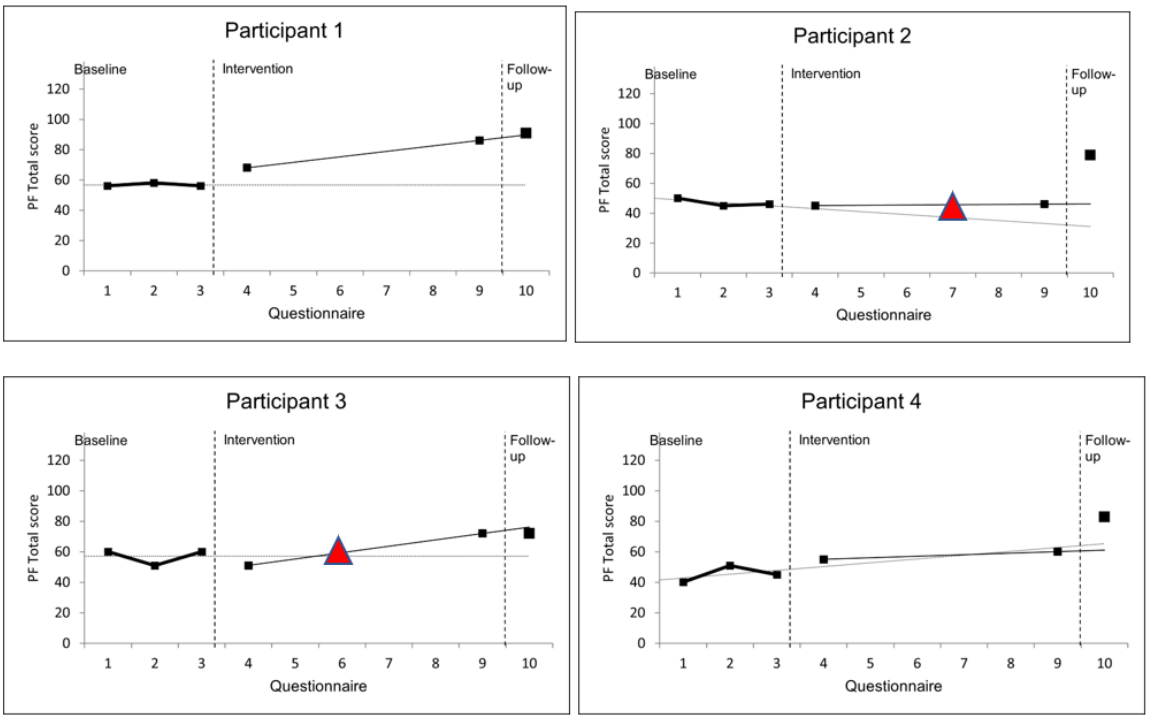

Figure 9. Graphs depicting overall psychological flexibility for Participants 1–4.
Note: The blue dotted line depicts the average score for PF in a healthy population.
▲ = a significant traumatic event took place at that point during the intervention (for further details see extended results under framework analysis).

As Figure 9 shows, all participants' overall psychological flexibility had improved by follow-up. P2 shows a slight decline from baseline to post-treatment, but by follow-up this has significantly increased. Trend-line analysis shows that all participants demonstrated an improvement above what was expected from baseline trends (as can be seen in each graph the baseline trend is extended by the dotted line and this baseline trend indicates the probable trajectory if the current pattern continues with no intervention). In each case the follow up score for PF is above where the baseline trend had predicted.

GAD-7

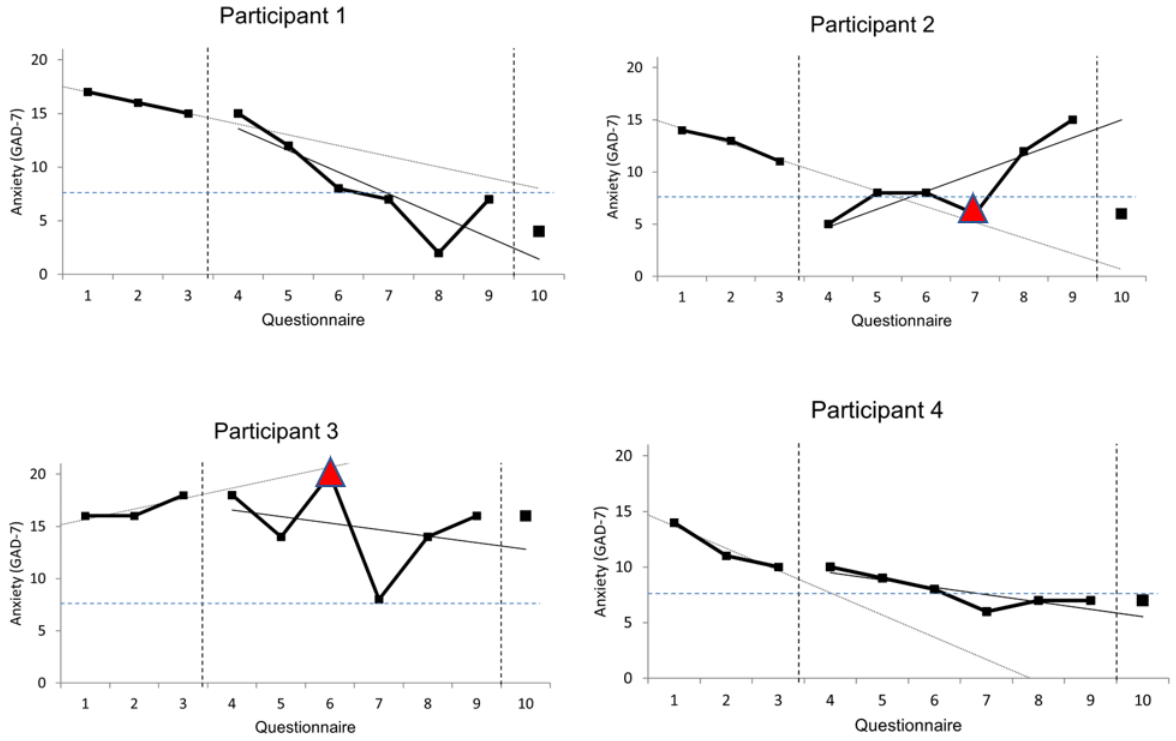

Figure 10. Graphs depicting GAD-7 results for Participants 1–4.
Note: The blue dotted line depicts the average score for GAD-7 in a healthy population.
▲ = a significant traumatic event took place at that point during the intervention.

PHQ-9

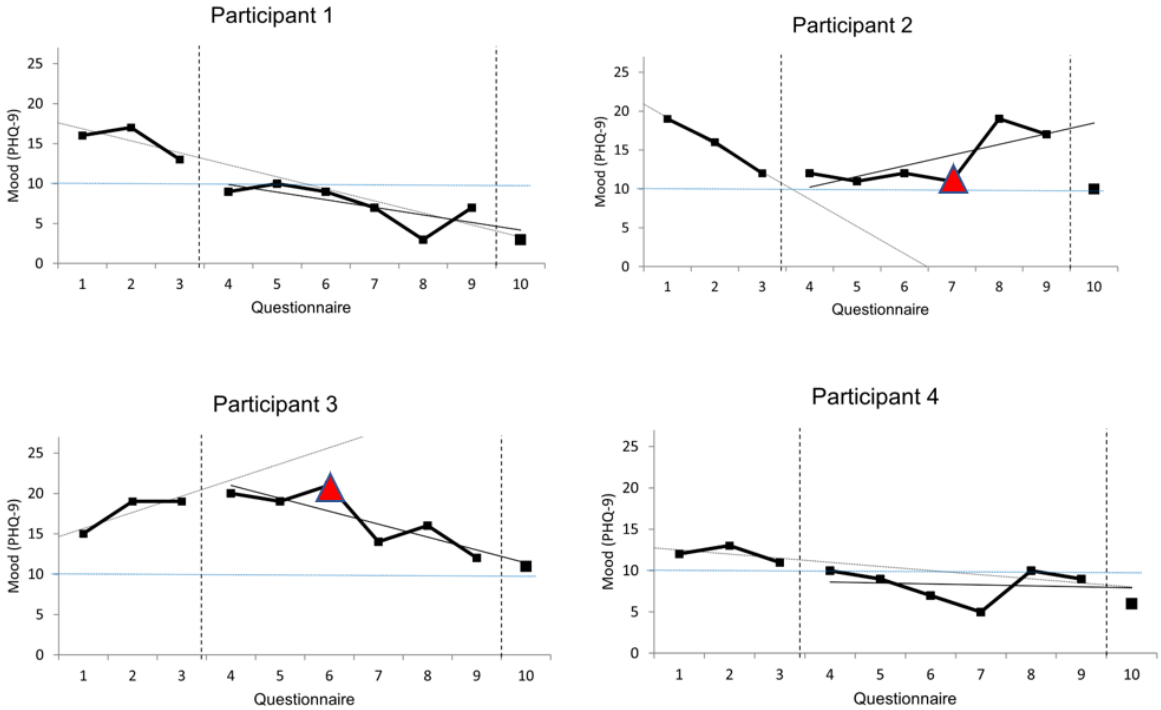

Figure 11. Graphs depicting PHQ-9 results for Participants 1–4.
Note: The blue dotted line depicts the average score for PHQ-9 in a healthy population.
▲ = a significant traumatic event took place at that point during the intervention.

Quality of life

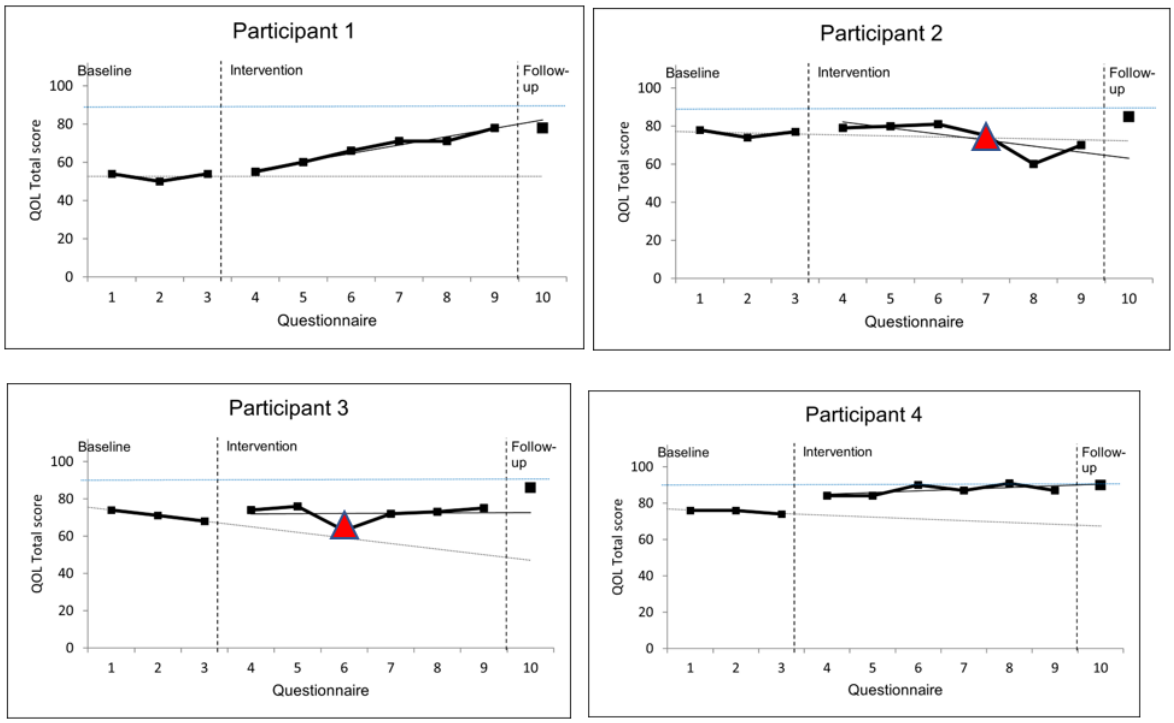

Figure 12. Graphs showing QOL results for Participants 1–4.
Note: The blue dotted line depicts the average score for QOL in a healthy population.
▲ = a significant traumatic event took place at that point during the intervention.

The QOLS scores are summed so that higher scores indicate a higher quality of life. The average total score for healthy populations is around 90. Burckhardt and Anderson (2003) state that it is reasonable to expect that patients who participate in a treatment programme and rate their symptoms as improved by 60% or more will gain 7–8 points on the QOLS total score.

Of note, as can be seen in the visual analysis in Figure 12 all participants' baseline trend initially indicated a projected decline in quality of life. Three of the four participants (P1, P3 and P4) demonstrated a direction of change towards a positive improvement of QOL during intervention stage. P2 demonstrated a decrease in QOL during the intervention stage but by follow up their QOL score had significantly improved.

Ruminative response scale

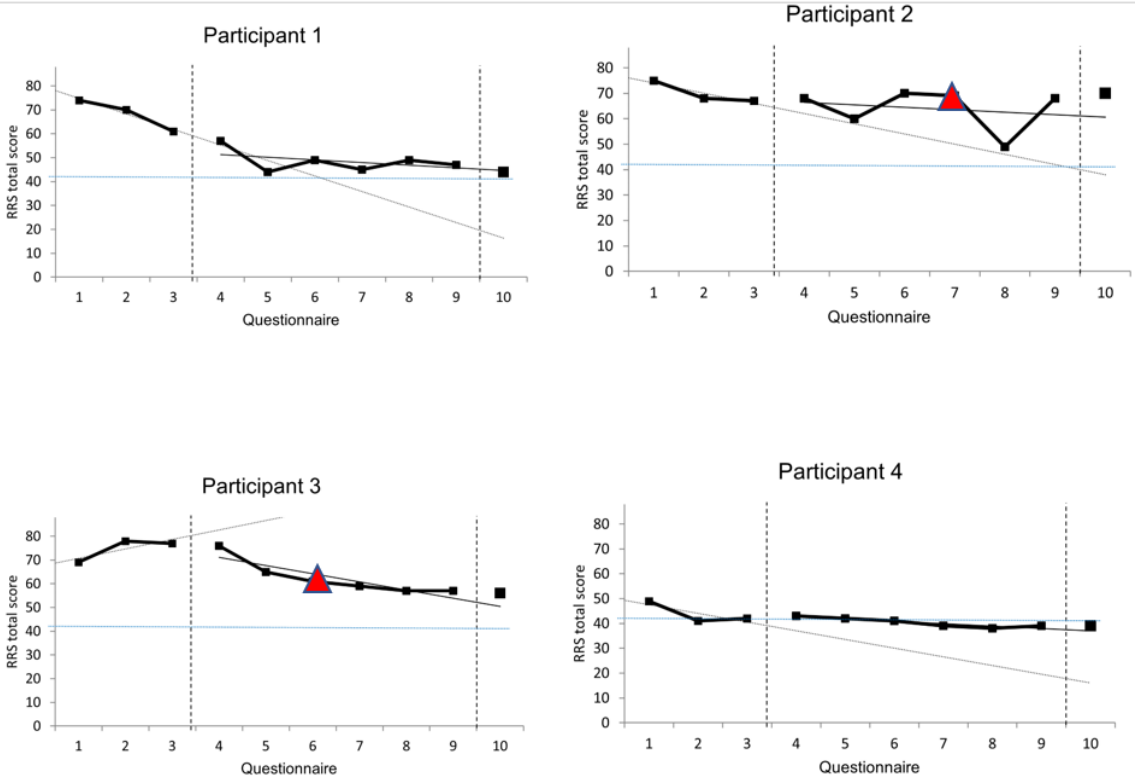

Figure 13. Graphs showing RRS results for Participants 1–4.
Note: The blue dotted line depicts the average score for RRS in a healthy population.
▲ = a significant traumatic event took place at that point during the intervention.

Emotional regulation questionnaire

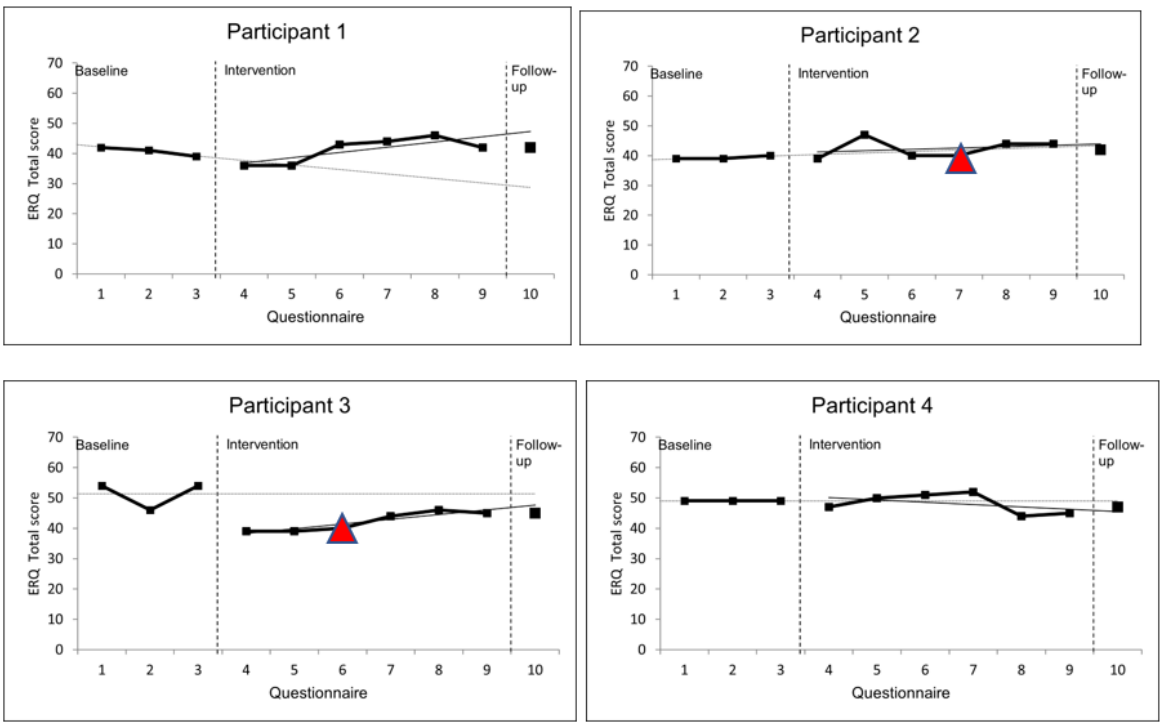

Figure 14. Graphs showing ERQ results for Participants 1–4.
▲ = a significant traumatic event took place at that point during the intervention.

Figure 14 shows that ERQ responses, unlike those recorded by many of the other measures, were relatively stable throughout intervention. P1's remained unchanged at final follow-up scoring. P3 and P4's had decreased slightly over time to follow-up, and P2 showed a slight increase in score.

Framework analysis

There were *a priori* themes created by the change interview (appendix *). These were : a) The therapy; b) Core ACT processes; c) Changes. After immersion in the change interview data and extensive listening and transcribing this framework could be expanded upon and further themes were generated as can be seen in figure *. Further analysis including direct quotes can be found in appendix*.

Table 6
Expanded themes from framework analysis

ACT processes	The therapy	Changes
Values	Acceptability	Perspective
Acceptance	Feeling safe	Behaviour
Committed action	Difficulties	Integration
Self as context	Skills/techniques	Coping better
Defusion		
Contact with present moment		

Overall, participants' responses in the change interview were congruent with the responses in the quantitative data.

ACT processes

The six ACT processes (values, acceptance, committed action, self-as-context, defusion, contact with present moment) were all tied in with the expanded framework so in order to avoid duplicating data are mentioned as being intrinsically linked within the two strands of 'The therapy' and also 'change'. Considering the ACT processes in this way adds another level of understanding and interpretation (see below).

The therapy

Acceptability

When acceptability was discussed in the interview no participant identified any unacceptable elements. P3 and P4 rated their experience of ACT-based integrative therapy as good and P1 and P2 as very good. All participants rated that they were feeling better, a lot better or very much better at follow up. When asked if anything was missing from the therapy P1, P2 and P3 stated they would have preferred more sessions. P1 specified 8 to 10 sessions would have been preferable to 6. P4 particularly liked the online questionnaires that could be completed remotely as it meant they had more time to think and answer them in their own time. P3 specifically said that they felt they had a lot more unpacking of trauma that they would have liked to have had time to do. P2 commented that some people may find it too

difficult to open up online initially. They also commented that their initial expectation for therapy was to do more talking about problems, but was pleasantly surprised that they were now equipped with skills which mean that they could reduce their internal distress more easily which reduced the need to talk things out so much with others.

Feeling safe

When asked about how the therapy had been experienced every participant mentioned that they felt more at ease in general at follow up. P1 felt ‘more at ease with myself’, P4 felt more relaxed in general. Although P3 was still reporting feeling very stressed about current life events, they were emphatic about stressing how safe they had felt during the therapy sessions and mentioned this several times in the interview; ‘I think like the most important thing is like the safe place’. P1 also mentioned how they felt safe during session as ; ‘You made me feel safe from the start. Your way of being accepting and warm.’

All four participants also specifically mentioned their use of the Somatic Experience techniques when they were feeling activated between sessions and how these had enabled them to feel safer, more regulated and less anxious and even enabled them to change their behaviours. Statements from the change interview corroborated the change in measures related to anxiety in that P1, P2 and P4 all reported significant reduction in the GAD-7 measure. P3 GAD-7 score remained unchanged from baseline to follow up but this could be understood further by referring to the subjective research journal which showed that P3 was still living with one of the relationships that had caused her initial trauma so was still dealing with the anxiety day-to-day.

Difficulties

When I asked which aspects of the therapy had been unhelpful or hindering or negative P1 reported nothing had been so, P3 commented that sometimes the resources from sessions did not feel accessible enough in a moment of overwhelm (regarding emailed resources). P4 reported that some of the exercises ‘felt weird in the beginning’ and that it had been hard to

visualise some of the techniques such as leaves on a river. They went on to add that with practice this ability improved and it ‘got easier to be in the moment’ but in moments of overwhelm some visualisations did not always work to reduce overwhelm. P3 reported that the most difficult thing for them was external challenges; living with the ongoing situation which was stressful, particularly when they returned home for holidays or when they had contact with the individual associated with their trauma. P1 and P4 mentioned that talking about traumas had felt difficult at first. But both added that it was beneficial in the long-run to have done this. (Even though during the therapy sessions trauma was worked on for the most part content free, there were still difficult thoughts and emotions which the participants tuned into during the intervention which was clearly challenging.)

Skills/techniques

Skills and techniques were another heavily weighted theme in the framework analysis. Skills learned in therapy were mentioned by every participant. P1 and P2 both specifically named the ‘passengers on the bus’ exercise as something that they use regularly and found beneficial. P1 even elaborated to say that they were now becoming aware of other people’s passengers on the bus, indicating increased empathy and understanding of others due to this skill. P2 named this exercise as something they had shared with their friends as they found it so helpful. Havening was another skill which was named by P1, P3 and P4 as being a useful calming skill which induced calm in moments of overwhelm and enabled better coping. P3 had found this particularly effective at calming them in moments of distress and they had taught the skill to their friends also. Mindfulness skills were also named by P1 and P4 as helpful. P4 stated that the mindfulness technique ‘leaf on a river’ was particularly effective at allowing them to control their thoughts and to reduce the impact of intrusive thoughts. The ‘Identifying values exercise’ was cited as beneficial by P1 and P3. P3 stated that it was helpful to define their goals in life which aligned with their values. P1 also said that they now realised more what they wanted from life. Interestingly the participants who identified that they knew now more what they wanted from life had also taken the most

actions towards these goals. (P1, P3 and P4) had all changed their behaviours in relation to idiographic aims they had identified for therapy from the beginning as a direct result of identifying their values (a core ACT component). The change interview in this instance corroborated the objective research journal which recorded valued action taken by each participant as being frequent and consistent for P1, P3 and P4. Idiographic tasks between sessions was another technique which was named as helpful by P1, P2 and P4. P2 stated that these felt like 'experiments' between sessions. These behavioural changes can be recognised as the core ACT component of committed action.

Changes

Coping better

All participants mentioned coping better with life since the intervention. P1 mentioned being able to calm themselves down and be more at ease with negative emotions, as well as feeling more willing to face these negative emotions. P2 mentioned how when things get difficult, they can now have a plan and know that there are things they can do to reduce the distress. Also, how they are now coping with the distress better in that it is not stopping them from 'doing life' and doing their activities any more. P3 mentioned that they are coping better with overwhelm and that havening in particular helped with that, and P4 mentioned that coping mechanisms from the intervention in general have been very helpful. Mood improvements were reported from all four participants. This reinforced the quantitative data from the PHQ-9 which showed P1, P2 and P4 all displayed reliable significant improvements according to NHS(2014) of ≥ 6 to mood (see table 5). P3 specifically reported that their depressive periods were much shorter now than before the intervention however they were the only participant to fail to show reliable significant change as only improved the PHQ-9 score by 4 points.

Perspective

All four participants made several comments about changes in perspective. This was a heavily weighted theme of the framework analysis as it was mentioned 11 times in total. P1 reported that they were aware of being much kinder to themselves now and that this had led to them living a much more authentic life. Now that they were aware of their own 'passengers' they were seeing life from others' perspectives also which speaks to the ACT component of defusion further. Compassion was a perspective which was reported as significantly changed by P1, P3 and P4. P3 stated that they had a drastically improved sense of self-worth since intervention which had led to them becoming less of a people pleaser, realising they do not owe anyone anything. P4 reported that they have a 'different way of looking at thoughts now rather than hiding them away' and as a result hardly ever judges themselves. P4 added that they now have a different perspective of their childhood, which helps them to be more self-compassionate.

P2 made 4 of the 11 comments on perspective. Specifically, they reported that initially they felt a lot of rejection for anxiety and negative thoughts and previously had concentrated on trying to 'get rid of them'. "…my anxieties like I can't just work on stopping them like, they will always be there and like that's okay…so I think that was like a massive thing for me personally". P4 went on to add that the change of perspective had led to a change in values in life "…things like 'this anxiety will never disappear' like I think in the start was very scary when we thought about it was just like what… like this was like my whole hope…but I think like that eventually kind of freed me… it's disappointing that there's no such thing as anxiety free and also like it was very disappointing, but now It's not disappointing, as I said, like it's freeing". P4 expectation of therapy was to free them from anxiety but in the end they felt 'freed' by accepting the anxiety instead of rejecting it and fighting it internally.

Behaviour

Behaviour was spoken about in terms of internal behaviour (cognitions and emotional reactions) as well as more external tangible behaviours. In terms of internal behaviours

many changes were listed. Internal changes ranged from becoming aware of internal reactions or ‘passengers in the bus’, to making conscious decisions not to focus on some ruminative thoughts and allow them to exist but pass by (leaf on a river), to planning ahead to use distraction techniques in order to break a rumination cycle. Tangible behaviours reported ranged from conscious effort to turn mobile phones off for a set time to allow focus on study, to deciding to spend less time with certain individuals who caused distress in participant’s lives. Some of the more significant behaviours began with small steps such as deciding not to leave a room of social interaction when this would have been a default reaction prior to therapy. Some of the more significant external behavioural changes involved decisions to break contact with dysfunctional relationships, to increasing contact with difficult but important relationships such as family members, actions towards valued outcomes such as taking up yoga and meditation classes, and increasing health behaviours such as exercise frequency.

Integration

Integration was identified and reported both as integration of self and also as integration with society. P1 spoke of how they felt more whole, ”I feel more whole, like more myself” and also reported how they had been engaging more socially which was their principle difficulty pre intervention. They also had been taking steps to speak up socially which meant that they perceived their connections with others as more authentic. P1 also reported they were now able to reach out to others more now whereas pre intervention they had felt unsupported and isolated. P2 reported internal integration with regard to engaging with internal dialogue with aspects of themselves. “that bus activity we did you know, sometimes when like a lot of negative thoughts come out I just think of that bus and kind of like trying to voice them down and like change the perception…I'm not really talking out loud and I do it by like in my head”. This internal dialogue helped P2 to accept her difficult thoughts and they felt this also enabled them to become better at approaching tasks and between session goals for behaviour.

P3 reported that regarding others, they were less likely to go along with people who had a toxic influence on them. “I don’t spend time with people who drain me anymore. I recognise when someone is not good for me.” Although this comment it is not in the direction of increased social connection it is related in the theme as it shows that dysfunctional social relationships were being recognised and perhaps if quality of social support was being measured this participant may have shown as a negative score pre intervention. But experience of social support and integration for P3 appeared to be moving in a more functional direction.

P4 reported that communication in their relationship was improved, as was their social life. Relationship issues due to a previous trauma had been a principle concern on entry to therapy but P4 was now able to discuss issues honestly and openly which had led to increased closeness in her relationship. They had also integrated their life balance more as they reported that they were now able to manage university work better alongside other life demands.

Change interview results summary

These detailed discussions from the change interview added depth and richness to the quantitative data and helped to illustrate some of the changes in measures and processes. They also helped to provide more context for each participant in respect of their current life challenges and perpetuating life stressors. This added another dimension of context for the participants and shed light on potential external factors of attribution for change – particularly, for instance, in P2’s situation, where we were able to discuss the outcomes and explore their thoughts behind sudden changes in direction and reasons for changes which may not have been expected. P2 was able to pinpoint what had been the background environment at the time in that, at Week 7 of intervention, they had been given notice that their visa had run out and that they may have to leave their course. This event is marked as a red triangle in all line graphs for this participant (e.g., see Figure 9). Participant 3 also

experienced significant life events during therapy of death of a childhood friend, while simultaneously contracting COVID-19 mid-therapy. This is also marked as a red X on P3 line graphs (e.g., see Figure 9).

Discussion

Key finding: Overall psychological flexibility

As can be seen in Table 4, overall PF increased significantly according to the RCI (Reliable Change Index) calculations for all participants from pre-intervention to follow-up. Also, P1, P3 and P4 all showed an increase in PF from pre to post intervention (Figure 1). P2 shows here a decrease between pre- and post-intervention, which is interesting when examined alongside some other results. According to the percentage of non-overlapping data (PND), effect size for P1 and P4 was very large (100% PND), for P3 was moderate (42%) and for P2 was small (28%).

Key finding: An increase in quality of life

One of the key findings of this study is that quality of life improved in all participants who completed the intervention and was maintained at follow-up. This suggests that the intervention has likely had a positive short- and mid-term impact on QOL. It had been hypothesised that as PF increased, so too would quality of life and also frequency of behaviours towards idiographically selected goals. This does indeed appear to be the case for all four participants. As can be seen in Figure 4, QOL increased for all four participants, and so the direction of change was positive. Burckhardt and Anderson (2003) state that an average score for QOL in the general population is 90. All four participants were well below this average, with a group mean of 70, with 61 being the norm for a PTSD sample (Burckhardt and Anderson, 2003), indicating that the sample was closer to the PTSD norm. However, by follow-up, all four participants had moved closer to the general population norm score of 90 (as represented by the dotted line in Figure 4).

Key finding: Trauma symptoms

Another key finding was the fact that there was a reliable decrease in the PTSD scores of all four participants, as well as a reliable decrease in CPTSD scores for three of the four

participants. Interestingly, though, and converse to all other participants, P2 reported an increase in CPTSD symptoms at follow-up.

Key finding: Depression levels

Mood levels for all four participants as reported by the PHQ-9 (see Figure 8) all fell significantly below the clinical cut-off point of 10 (mild depression) (NHS, 2014) at follow-up. This was especially meaningful when conisdering that at baseline, three participants were reportng depression-severity scores of moderately severe (P1, P2 and P3) while P4 scored as moderately depressed.

Conclusion

This study propounded important contributions to the field of counselling psychology. By addressing this 'problem topic' in this underserved population (Corrigan & Hull, 2015; Orben et al., 2020), as evidenced by national statistics and the research literature gaps, counselling psychology as a discipline leads the beginning of dialogue in this area. When dialogue is then supplemented by scientific and empirical investigation, as with this study, it becomes possible to place this much understudied field of trauma solutions in young people at the forefront of current research.

This study is the first in the psychological literature to investigate a remote ACT-based integrative intervention for young people. During recent years, as the world has experienced a pandemic and youth has been forced to grow up under threatening circumstances such as it has never before experienced, it has never been more pertinent to understand the effects of trauma, particularly on our youth.

Therefore, this research holds important counselling psychology implications. Although it is not uncommon for counselling psychologists to work with trauma sufferers, there are many trauma survivors in the general population who never seek treatment. This is understandable given that most trauma survivors may be put off the idea of therapy, assuming that entering

therapy would involve confronting the trauma verbally and emotionally, which could potentially be re-traumatising in itself. Also, the dropout rate for trauma therapy is high, and experiential avoidance can be problematic, coupled with an unwillingness or inability to tolerate exposure therapy (Ramirez et al., 2021).

Meta-analytic reviews of the treatments that are seen to be effective, such as CBTs, have strong pre-treatment-to-post-treatment effect sizes, with 67% of participants not meeting criteria for PTSD after therapy (Bradley et al., 2005), yet a third of participants are unresponsive to these treatments and there are additional problems with treatment refusal and therapy dropout rates (Bradley et al., 2005; Schottenbauer et al., 2008). This reluctance to enter or remain in therapy is understandable when the nature of trauma symptoms includes re-experiencing the trauma in the here and now, not just in a cognitive or emotional sense but also in a physiological one. This can be understood in terms of SE theory (Levine, 1997; Payne et al., 2015) and how activation of the trauma engages a fear-and-survival response. Consequently, when trauma is present, so is fear, and along with that come high levels of EA. Sometimes even a fear of thinking about the trauma is enough to trigger the trauma response and place the individual back in a feeling of helplessness and intense threat. However, this then leads to a cycle of further avoided circumstances and the dysfunctional state of being where fears are never challenged. For example, P2 remained experientially avoidant internally about their visa not being renewed, fearing the consequence of not being able to stay in the country to finish their degree, and thus the mere thought of the visa was pushed from their mind continually. Their intense fear of the outcome was too much to tolerate, so instead they avoided it entirely. The result was that their inaction in failing to think about it meant that their potential actions in dealing with it were impossibly far away from their reach. This inaction and external EA was involuntarily, but it was in a practical sense leading them towards their worst fears of deportation.

It is hoped that counselling psychologists can draw upon the understanding gained in this study to enhance their professional practice around trauma-informed clinical work. The study also opens up potential new avenues for researching trauma-focused remote ACT-based integrative therapies

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Part III: Clinical piece

Combined client study and process report.

Trauma: Finding peace without silence: A combined assimilative integrative case study and process report

Introduction

Tinnitus is often described as an incurable. Most tinnitus patients feel distressed by the intrusive nature and 'loudness' of tinnitus, but there are no drugs that are successful at reducing this symptom and, further, the cause and mechanisms of tinnitus are still not fully understood. The neurophysiological model of tinnitus is that all levels of the auditory pathways and some of the non-auditory systems play essential roles in every case, but interestingly the dominance of non-auditory systems are stressed in determining the level of tinnitus annoyance. There is scant research to date producing evidence of successful treatment of tinnitus.

Why I chose this case

I felt that this case shows how my clients' perceptions were key, and how their perspective of the perceived initial 'problem' actually became the 'solution'. Transformation can occur despite actual circumstances remaining unchanged. This case epitomised for me the beauty of facilitating acceptance and growth despite life circumstances remaining difficult, but more importantly it showed how an integrative approach means a very personalised road to recovery can be negotiated. As counselling psychologists, we aspire to be 'reflective scientist-practitioners' working creatively, compassionately and collaboratively (Henton & Kasket, 2017). I feel that this case was a challenge but that the creative and collaborative rapport that I achieved with my client felt as if it allowed a compassion for the 'tinnitus' itself to be developed within the client. This change of perspective seemed pivotal in engendering an improved quality of life for the client, despite tinnitus symptoms remaining and a significant level of anxiety still being present for her.

Personal details

For purposes of confidentiality, all names and identifying details have been changed. I shall use the pseudonym ‘Jenni’ when referring to my client throughout. Wherever quotation marks are used in the main text, this is to indicate verbatim words used by the client.

Jenni is a female in her late 20s. She is smartly dressed and wears a headset in sessions. She lives with her boyfriend in a flat and works as a web designer. She self-referred for private therapy to help with her anxiety, which she reported was becoming debilitating due to her diagnosis of tinnitus. Prior to assessment, she was happy to fill out some measures but stated that she did not want to do these every week. An online CORE-10 form was filled in during screening, as I find that this is a short and easy way to get a benchmark for client wellbeing and it is useful as it includes a risk measure within it. Risk was discussed and assessed and none was identified through the online measure or during the clinical interview. Sessions were held in the context of a full lockdown, so all sessions were held online. First impressions were that she was an intelligent, professional person who was also currently experiencing a lot of distress. She frequently erupted into tears in this first session, and I also noticed that she was very apologetic for this. Her anxiety seemed very close to the surface; there was an air of desperation about her but also a genuine willingness to want to engage in therapy.

Assessment

Screening takes place prior to the assessment session where I assess bio-psycho-social impact on the client of their presenting problem. This is an exploratory assessment, not belonging to any specific modality.

Jenni was diagnosed with tinnitus only weeks after the first lockdown for COVID-19 began. She had been living in England for only a few months up until this point and was still adjusting to the different culture and climate, and also had begun a new relationship with her

English partner, with whom she was very much in love. This was a stark contrast to the relationship she had left on another continent, where she experienced what she described as emotional abuse for years before she felt strong enough to leave. She felt that, by remaining, she had been weak and had wasted years of her life, and now that she felt she had an ideal lifestyle and relationship her sudden diagnosis had left her feeling that she was 'being robbed' of what she saw as her finally finding happiness. Her new partner had insisted on a very strict bubble throughout COVID so for months she had not been able to see her family, and the removal of this core support during a very stressful time of learning to cope with tinnitus heightened her distress. Further, the tinnitus had come to represent all of the unknown and uncontrollable aspects of her life to this point, including some early traumatic events and family loss, but ironically it was further perpetuating her avoidance of the things she had once loved in life.

In our assessment session Jenni expressed a fear of medicalisation. Jenni had already tried CBT for anxiety and not found it very helpful. She had lost faith in her body and in herself, and the fact that her prior CBT sessions had not helped contributed further to her feeling a failure even in therapy. As I garnered more information about her, it became clear that there were some historical incidents that were likely contributing to her current elevated distress levels. She nonchalantly mentioned that as a child she and her family had been kidnapped, but in her home country this was seen as 'not unusual' by Jenni. She had also been in a marriage that she described as emotionally abusive. Although the tinnitus and recent experience of COVID-19 were identified by Jenni as the main causes of her anxiety, I was mindful that she likely was experiencing persistent PTSD (post-traumatic stress disorder) or complex PTSD (Cloitre et al., 2011) and so shared my reasoning for thinking this with her. I asked if we could complete an ITQ (international trauma questionnaire), as this is the only trauma measure that measures complex PTSD as well as PTSD. Jenni felt happy to do this as she felt it was a right fit to what was happening for her and she felt less pathologised, that finally she might discover a reason for her high levels of anxiety and fear. She produced a

score of 27 on the ITQ for PTSD and had a non-clinical score for CPTSD. NICE (2018) recommends exposure work, trauma-focused CBT (TF-CBT) or EMDR (eye movement desensitisation and reprocessing) for PTSD. The TFI (Tinnitus Functional Index) is suggested as a measure for tinnitus and NICE suggests that healthcare professionals discuss results of such assessments with the client, as discussion around individual components can help the patient to engage with their condition. But in this case, as Jenni had clearly communicated further anxiety about being medicalised and 'broken', this was discussed in supervision. NICE also recommends that the TFI can be replaced with visual analogue scales. In supervision, through discussion of how CBT had already been inadequate and the client was fearful of being further medicalised, it was agreed that using ACT visual analogue assessment such as the 'bullseye' template (see Figure 1) would adequately identify the specific impact of her tinnitus and would also help to specify areas to target for therapeutic aims.

Screening and contract

We collaboratively set a therapy contract (Kuyken et al., 2009). Within this Jenni set her therapy aims, which were linked to her identified current values of 'connection with others' and 'feeling joy'. Her aims were:

1. to save her relationship
2. to gain confidence to get the job of her dreams and stop letting fear control her.

Screening at point of referral showed that Jenni was experiencing moderate levels of distress as measured by CORE-10. Bearing in mind Jenni's aims for therapy and my assessment with her, an integrative approach was suggested as a way forward. This seemed appropriate as Jenni had already experienced traditional CBT, to which she had been resistant. She was initially offered an eight-week course of integrative online therapy

with a review every four weeks. Ending was to be agreed mutually, and there was a possibility of extending sessions at the end of the eight weeks if this was agreed upon mutually.

Theoretical framework

My work with Jenni drew on psychological theories of PTSD (Ehlers & Clark, 2003) due to single-event traumas such as the kidnapping, and also CPTSD (Hyland et al., 2018), which recognises long-term relationship abuse and environmental factors such as COVID-19 as a trauma stressor. A large body of evidence suggests that a phase-based treatment approach is effective for PTSD (Cloitre et al., 2011). The consensus is that PTSD sufferers require a period of stabilisation and development of skills focused on regulation of affect, and interpersonal functioning prior to successful trauma reprocessing work, in order to avoid re-traumatisation.

Together, we used an assimilative integration approach (Messer, 1992) and the theoretical perspective of this process report follows an integrative framework. There is a much evidence for the effectiveness of integrative treatment modalities for trauma (Gilbert & Orlans, 2011; Lahad et al., 2010) and specifically for tinnitus (Sedley et al., 2016) as this allows biopsychosocial considerations and a fuller context of the person and their difficulties as well as offering a more complete personalised and idiographic approach towards recovery (Sornborger et al., 2017). A huge benefit of assimilative integration was that, as a counselling psychologist, I could work within multiple modalities to enable recovery and engender a deeper understanding of earlier experiences in Jenni's life and how these might fit within her narrative.

TF-CBT was the host modality in order to support processing of Jenni's tinnitus-related trauma. This was supplemented with acceptance and commitment therapy (ACT) (Hayes et al., 2013) and some somatic experience (SE) approaches (Levine et al., 2018; Rothschild,

2000; Ogden & Fisher, 2014). There was a heavy underpinning flavour of a person-centred (PC) approach throughout. EMDR (Shapiro, 2018) was used in one session in the middle of therapy as Jenni was getting stuck with the TF-CBT and had stopped progressing with her behavioural experiments.

Brewin (1996) proposed a theory that the verbally accessible memory system (VAM) and situationally accessible memory system (SAM) are both aspects of this dual-representation theory. The system of SAM is linked strongly to physiology and the senses, which can mean that a trauma survivor can suddenly be transported into a state of activation if a trigger brings the trauma memory to the surface. This can include flashbacks or vivid intrusive thoughts or nightmares. These fragmented memory intrusions can be linked to an array of physiological symptoms. Ehlers and Clark (2000) built on this theory, proposing that PTSD develops because the memory of a trauma-inducing event is processed in a 'fragmented' and 'disorganised' manner, which can lead to involuntarily re-experiencing of the trauma event, such as flashbacks as if the danger were happening again in the present. Trauma symptoms are then maintained by negative appraisals of the trauma and its consequences, e.g. 'I can't cope', and maladaptive coping strategies, e.g. experiential avoidance – both internal and external – and hypervigilance. Their proposed treatment strategy, therefore, is to elaborate the trauma memory, to specify and alter the negative appraisals, which enables the client to then discriminate between stimuli; reduce the feeling of current threat, e.g. through stabilisation and grounding; and help the client to be relieved of the maladaptive coping strategies. There is a substantial body of evidence suggesting TF-CBT has strong efficacy in treating PTSD and that these recoveries are maintained (Ehlers et al., 2003; Mueser et al., 2008).

Integration of mechanisms of ACT with TF-CBT

ACT has been shown to be beneficial for individuals who suffer from various medical conditions including cancer (Feros et al., 2013), chronic fatigue syndrome (Roche et al.,

2017), fibromyalgia (Wicksell et al., 2013) and, most relevantly, tinnitus (Westin et al., 2011). A core element of ACT is that it works on the premise that experiential avoidance as a result of psychological inflexibility leads to repeated behaviours that lead us away from our intrinsic values and goals in life. By identifying the small, achievable, realistic steps that allow exposure to the difficult avoided experience, the hardest of exposures can be begun. As small successes occur, then the journey towards growth for the client can begin. In this way ACT can really help clients who are particularly stuck, even though the processes at face value are seemingly at odds with CBT in that, rather than trying to change 'dysfunctional' thoughts to more functional ones, there is a focus on accepting the difficult thought and feeling in the first place, making space for it to be there, in order to prevent avoidance or running away from the difficult aspect. Turning towards the difficulty can address avoidant behaviours more fully. Facing a difficult thought or feeling can stop a cycle of safety behaviours that otherwise can spiral, creating a false sense of security and can actually exacerbate fears, phobias and trauma reactions which take the client away from their values in life.

Somatic elements to enhance ACT

By drawing on the approach of SE (Levine, 2018), this allows even more slowing down, even more space to be created for the difficult feeling. This aligns with CBT in that it brings intervention at the 'physiological level', and it is also congruent with ACT approach as it sits nicely within two hexaflex elements of 'present moment awareness' and 'acceptance'.

EMDR

It could be argued that EMDR philosophy has not originated from the humanistic counselling psychology field. Also, the fact that it adheres to a rigid protocol that uses measures throughout means it could be argued to be positivist, reductionist or prescriptive in its underpinning, thus creating tensions for my humanistic approach. However, Shapiro (2018) states that EMDR is inherently an integrative approach in that it utilises many techniques

from different approaches including somatic (Van der Kolk, 2014) and experiential (Bohart & Greenberg, 2002), and in fact many integrative aspects are embedded in its integrative procedures (Lazarus & Lazarus, 2002; Smyth & Poole, 2002; Young et al., 2002). Also, The fact that Jenni requested trying EMDR meant that, as her therapist, I was responding to her preferences and was thus fully within a humanistic stance. It could also be argued that the subjective units of distress scoring that is used throughout EMDR is unquestioningly subjective and highly personal to the client's individual experience, therefore adding weight to the argument that EMDR is highly personal and tailored to every individual despite there being a protocol to follow.

TF-CBT was used as the host model to provide psychoeducation to Jenni about the nature of the trauma lens linked to her difficulties and to identify her personal hierarchy of experiential avoidance. ACT was drawn upon primarily in Phases 1 and 3 of treatment, as it enabled an identification of Jenni's intrinsic core values and desired direction of her life right from the outset. Its mindfulness aspect lent itself well to emotional regulation, which is an essential part of stabilisation. An externalisation technique (Neimeyer, 2006) was drawn upon when a self-critical theme emerged with Jenni (Box 1). This helped to integrate the parts of herself that she was rejecting internally and that at times were holding her back from restructuring her appraisals in relation to her difficulties. EMDR was used for one session mid-therapy when Jenni was stable enough to accept and regulate her emotions more confidently (see Appendix 3). It was introduced after consideration as Jenni had requested to try it. It enabled some of the deeply held trauma around loss to be processed (Van Der Kolk et al., 2005). We then returned to TF-CBT in order to continue working on her exposure, and ACT also added depth to this work when addressing her avoidant behaviours. We finished with a TF-ACT narrative approach to the tinnitus in which Jenni further reframed her previous difficult feelings around this. SE and ACT were drawn upon throughout the entire treatment, where appropriate, to enable a soothing of the physiological system when Jenni

was becoming activated and triggered, and a PC philosophy underpinned the whole approach throughout.

Treatment phases

Phase 1: Stabilisation. Psychoeducation on trauma to normalise Jenni's experience. Shared TF-CBT formulation to enable understanding of her early experiences with respect to her current situation and how they fitted in with more recent traumatic developments.

Phase 2: Trauma processing. EMDR (Shapiro, 2018) in the middle of therapy once stabilisation was secure.

Phase 3: Re-integration. Rebuilding the life Jenni desires in line with her intrinsic values and hopes.

The above phases were not necessarily linear at times. The process of them interacting was what enabled revisiting the trauma. We titrated the distress as much as possible, but as Jenni was continuously exposed to tinnitus as the most recent and present trauma, we were forced to make stabilisation the key in order for her to cope from day to day.

Also, the re-integration did not have to wait until complete processing had occurred in this case, as part of Jenni's personal challenge was to habituate to tinnitus. This meant that re-integration beginning as early as possible actually added to her ability to place less attentional focus on the tinnitus. Re-integration was key to enabling her to ruminate less.

Treatment development

I shared my formulation about Jenni's trauma, her experiential avoidance and where this was leading (see Figure 2), and we discussed how important safety and soothing would be to her. She had identified her aims for therapy in assessment, but as we were working with trauma it was imperative first to provide her with resources that she could access both in

sessions and between sessions should she need to regulate her emotions and reduce overwhelm. I offered Jenni a SE technique called havening (Sumich et al., 2022), which involves stroking down her arms, almost like giving herself a hug. There is much research about the client using physical sensory movement to accompany soothing touch being beneficial (Ogden & Fisher, 2014). I felt that, due to working online remotely, it was important that a 'safe place' be introduced early on (Lahad, et al., 2010, p. 394). This was done together as Jenni recalled a safe special place from a fondly remembered holiday, which was embodied in all her five senses and given a name and an accompanying physical movement (havening touch). By giving this additional physical self-touch to the embodiment, Jenni found that she could access a deep sense of soothing almost immediately if she used this touch in a moment of overwhelm between sessions.

Jenni began to feel more empowered between sessions as she was beginning to feel that her mental state was not dependent on her anxiety levels. Having the ability to regulate her emotions freed her from the debilitating effects of emotional triggers.

When revisiting her aims, she still held the initial desire to improve her relationship with her partner. In order to home in on how the anxiety and tinnitus-related behaviours affected this, we looked at the bullseye analogue assessment (Figure 1), which helps to determine specific difficulties around the issue.

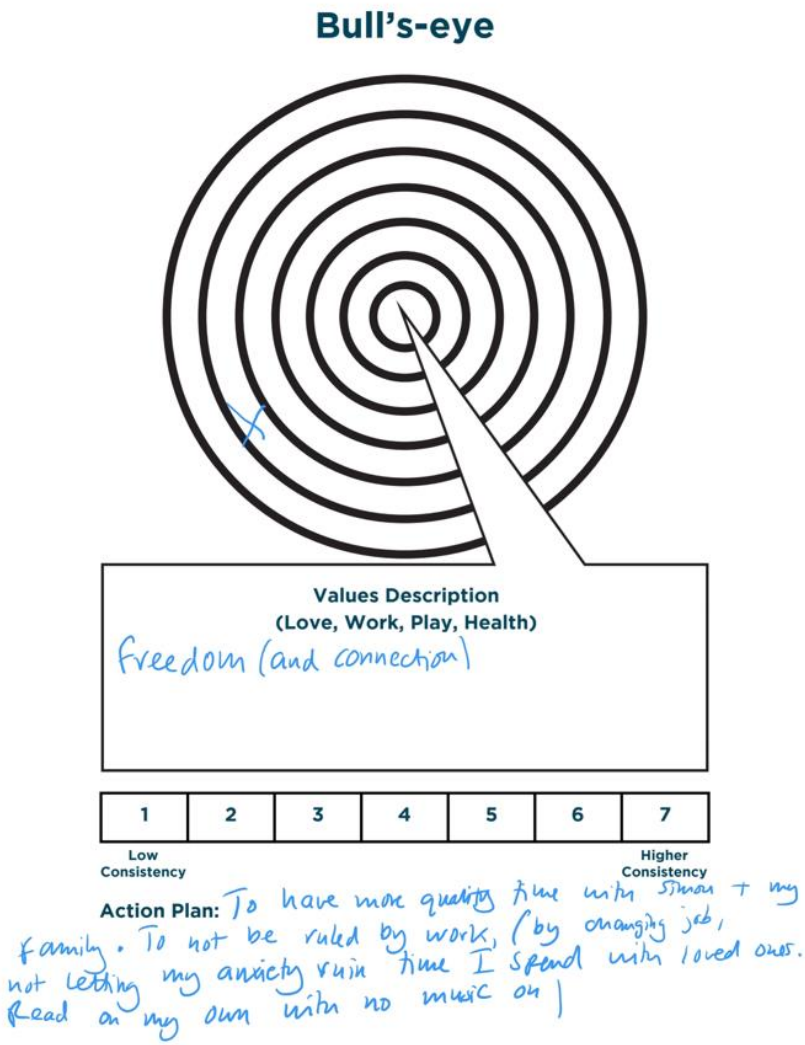

Figure 1. Bullseye (ACT) visual analogue assessment

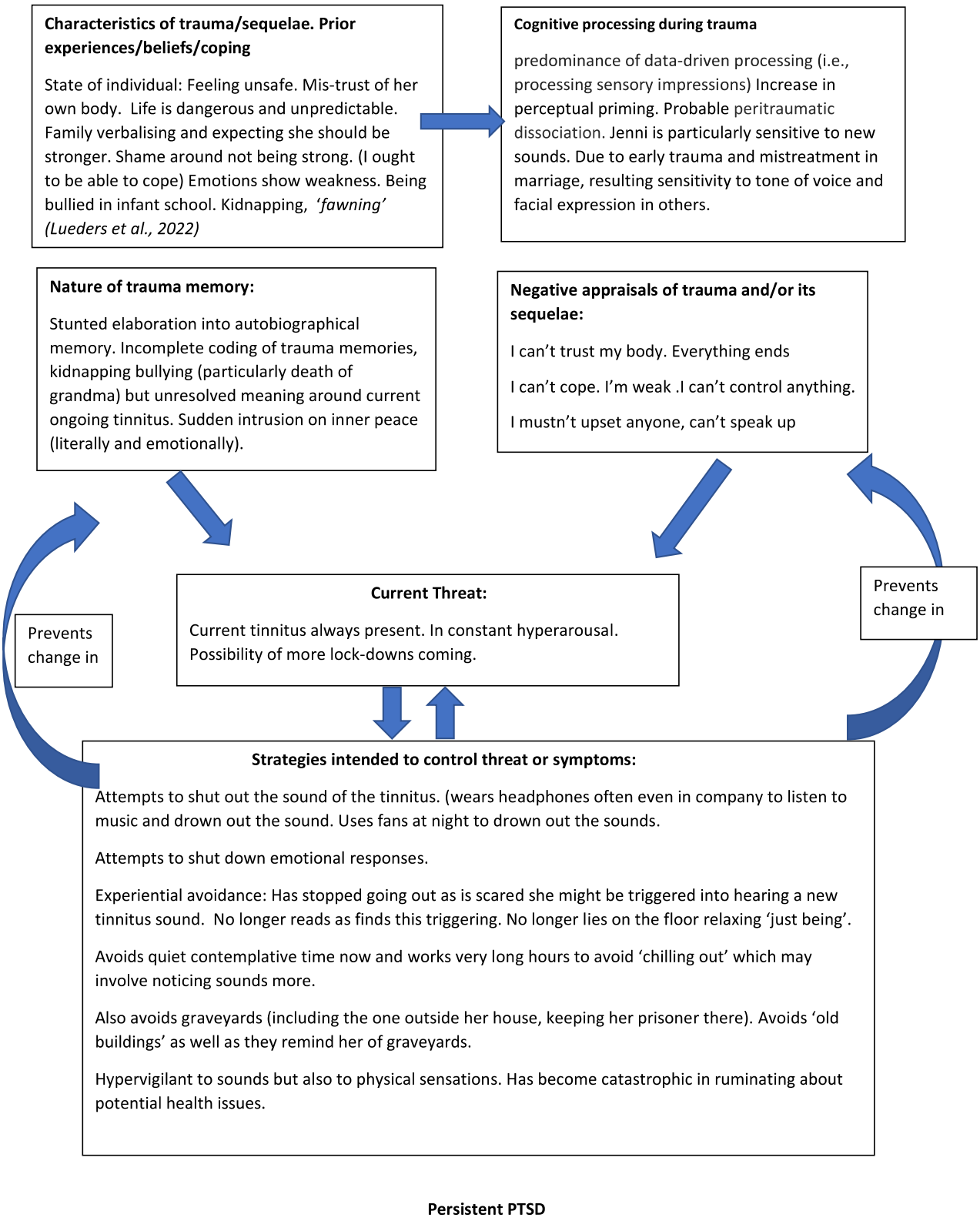

Figure 2. Ehlers and Clarke model diagrammatic formulation for Jenni's persistent trauma.

Jenni noted that she was only on a Level 2 of consistency in moving towards a valued life of freedom. On discussing this at length and exploring the diagram further, she was able to identify that by not doing the things she loves, like reading and going out with her partner, this fed back into a cycle of avoidance whereby she ended up spending more and more time at home just ruminating about the tinnitus and focusing on it even more and missing out on job opportunities. She considered what steps she felt realistically able to take for next session and decided that she would love to read again, something she had not done for many months. We spent some time discussing how willing she was to do this and what might get in the way, and she identified the tinnitus as a possible obstacle, so we discussed what she could do if that was the case, exploring what could she do instead at the point where she would usually give up. I reminded her that it was about taking consistent action towards her goal that matters, that this is what might move her in one or two circles. She concluded she would read for five minutes, and 'when' she got distracted by the tinnitus the plan was for her to stop and notice the sound for a few minutes, to focus purely on the sound with curiosity, notice what it sounded like and become immersed in it, but then to go on and try to read for just five more minutes. This plan very much originated with Jenni, but it was facilitated by me checking at every point how she felt about it and what might get in the way. By the next session, Jenni was elated that she had managed to read a book she had been trying to read for months, for thirty minutes. She had even read without earphones on, so she felt very proud of herself and was much more hopeful.

The next two sessions were spent on similar exposures, which both went well. We also adapted the ACT 'leaf on a river' visualisation whereby she would place each individual sound on the river if she was finding she was focusing on it too much. This worked quite well for her, although when it came to her next exposure of leaving the house, she did not feel able to. She asked me about EMDR, having seen it on my website, and I explained how it worked. She was very keen to try it and I agreed that her leaving the house was a stuck

point that was getting in the way of the exposure element of her therapy, that she was just becoming too physiologically activated at the thought of walking past the graveyard.

We agreed that our next session would be an EMDR session (Appendix 3). Jenni's negative cognition of 'I can't cope' and 'I'm not safe' had changed to 'I can cope; we are all in this together', and her initial SUD on the memory of her grandmother's funeral of 9/10 post-EMDR desensitisation phase came down to 3/10.

There was a significant change in Jenni after this. She seemed to laugh more in sessions and seemed more open to trying new exposures. When revisiting the bullseye, she identified a day trip as her next small step towards the centre of the target. At our next session, she reported she had gone to Peppa Pig Land with her partner and niece and had a wonderful time. She could not believe how well it had gone. She said that it was the first day ever she had experienced where she did not notice the tinnitus at all. She could recall the lovely sound of the birds singing and the laughter of her niece. This was a huge breakthrough for her as the exposure was a direct 'reclamation of her life' intervention despite the tinnitus being there, yet she had been able to focus on the sights and sounds of nature, and on quality interaction with her family and partner. The door of hope had opened a bit further. Now that she knew it was possible she felt she might repeat this.

During our sixth session, we revisited her scores and together discussed the drastic reduction of her anxiety score and her next steps of applying for her dream job. Despite the continuous improvement of her quality of life, she was still wanting to 'remove' the anxiety.

I also felt stuck as a result of Jenni's 'stuckness'. Despite the visible and felt improvements, her cognitive appraisal of anxiety itself was maintaining her negative reaction to whenever she had a negative emotion. This is where I introduced the externalisation of her catastrophic thinking linked to her tinnitus (Box 1). She had identified the voice entity, naming it 'John' after a bully who had terrorised her in infant school. He was very scary and

nasty, was extremely critical and wanted the worst for her. She felt terrified when he was around and on edge as if everything was unpredictable. But after the externalisation exercise she understood the purpose of this catastrophic thinking as actually a protective function. She also dreamed of ‘John’, of meeting the inner critic, where she realised his ‘good qualities’ and apologised to him in her dream. It was after this shift in her internal integration of her own fragmented parts of herself that she appeared to be more open now to also beginning defusion with the tinnitus. This integration of self had led to more integration in Jenni’s life.

Box 1: Illustration of externalisation exercise (taken from Session 3)

CP1: So when you look at John over here (points to my side of the screen), how does it feel that he's here and not over there in your room?

Client1: Better. (nervous giggle)

CP2: OK, so you said that John is this spiky ball about this big. (I mirror the size of a football as Jenni had done when showing me) He pulses.

Client2: Yeah, like… (uses her hands to describe a pulsing motion around her head) A bit like my headaches.

CP3: OK, great. So he's pulsing like… (I mirror the same speed and energy that Jenni had in her hand motions) And you said he has big red eyes?

Client3: Yeah, like red, er, staring, kind of…scary eyes.

CP4: OK. Was there a reason you chose the name John?

Client4: Yeah. John was someone who bullied me at school. He was really scary. I hated him. (nervous laugh)

CP5: OK. So John is over here at the moment. Now, you said that when you hear John in your head, he says things like, 'Beware, everything is about to go wrong, don't get too happy as you will lose it all.'

Client5: Hmm. Well, I think that actually I used to think that John was trying to scare me, but, err, like, I think actually *he* was the scared one.

CP6: Ahh. (softly spoken). If he was to, like, speak…and if if he could talk to you right now, what do you think would be his mission, ultimately? Why is he saying these things to you?

Client6: When I used to hear that voice, I think it was trying to scare me, like…but actually, I think, er, it might be…maybe more that…more like I don't think he's totally evil (nervous laugh), but he might say his mission is to stop me from being disappointed. Not so much cos he's bad, but more cos, to protect me, kind of, cos he's been disappointed.

CP7: Ahh I see. That makes sense. So what if John said to you now, 'Don't get too happy'? What might you reply to him with?

CP8: And what might John say to that?

Client9: yes they are, there's no point being happy, it won't last…

CP10: OK, yeah. And what if he said, 'Yes they are, there is absolutely no point in you being happy right now as it could all get taken away tomorrow, so I insist you stay feeling worried, just in case'?

Client10: (laughs) Well, I would say, 'Well, that's silly. You can't live like that. Bad things do happen, but…you can learn to live with them. I mean, look how we all coped with lockdown. Yeah, it was terrible, but we are all still here. Jeez, it was really, really terrible…but now everything is opening up, and I can see my family again.

CP11: Yeah. And what might John say in response to that?

Client11: Hmm. He would say, 'Well, maybe for now you can see them, but there could be another lockdown any day! And then you'll be back to square one.'

CP12: And what would you say in response to that?

Client12: I would say, 'Well, no, I will never get to that again, because I will insist that I am in a bubble with my family as well next time.' [My partner] was really strict…which was good…but it was so hard. I'm not doing that again. I will make sure that I bubble with at least my mum and dad as well.

CP13: OK. And what would John say to that?

Client13: He doesn't have so much to say now. (laughs from her belly). He was trying to help, I suppose, but it wasn't helping me anymore.

This extract illustrates how Jenni is gradually coming to a different perception of her anxiety around the tinnitus and also anxiety in general through accepting the difficult parts of herself and developing a new relationship with those parts.

Lead-up to segment

The recording is from the seventh session of eight. Jenni had just been explaining that she feels that her mind is ready for action but that her body is feeling 'yucky'. She uses this word to describe the physiological symptoms she is experiencing, such as palpitations and headaches. I notice the incongruence between how she says her mind is feeling, e.g. excited and ready for action, and wonder if there could be an allostatic overload (Raglan & Schulkin, 2014) from the compounded trauma events she has experienced cumulatively up until now, in particular the COVID-19 experience that happened simultaneously to her tinnitus developing. I theorised that the tinnitus may have developed as a reaction to stress (there was no hearing loss or head trauma involved and it came on suddenly). Jenni had just spoken of how she had woken up that morning feeling anxious but had made a conscious decision to think differently about her tinnitus sounds.

Transcript

Starts: 00.20.03

Client1: I can't keep being anxious about the noises in my head

Client2: I'm collecting different sounds. (laughter) In my head I'm like, maybe if I try that strategy and reframe my thinking about the sounds, I'd be like, well OK, these are just England noises. (nervous giggle)

Comm1: Her language here denotes a change in her perception of tinnitus. I hadn't noticed this subtle change in her language at the time of therapy and noticed it only on listening back, but the fact that she sees herself as 'collecting' the sounds immediately places her in more of a position of empowerment and control. It almost places an ownership on the tinnitus rather than a feeling that the tinnitus is controlling her. This indicates that her internal behaviour (thoughts) towards to tinnitus is changing.

CP1: That's interesting. Did you say you imagined them like a tattoo?

Comm2: Metaphor is used a lot in the ACT approach. As soon as I heard Jenni put her own labelling metaphor on 'the tinnitus', I saw this as an opportunity to use her own language and meaning to further reframe the meaning of the tinnitus within an ACT approach, and I wanted to attempt to draw out from her what her own perception of the tinnitus noises now were. It sounded as if she was using the word 'tattoo' as a kind of courageous label, almost a kind of resilience symbol, but this was a presumption on my part so I wanted to gain clarity on exactly what this meaning was for her. I was interested in how she had reframed the noises and was keen to help her to elaborate on this and build a re-narrative around the sounds she heard as a result.

CP2: If the sounds were a tattoo…thinking about some of the quite meaningful things you came up with about the tinnitus last week, what do you think the tattoo would be to represent he tinnitus?

Client3: Yeah. (said in a light and positive tone) You know, like, you get so you know how you can get different tattoos on your body? Well, I don't really have that but erm you know there could be like different sounds.

CP3: Yeah, I love that idea. (in a light and interested tone) I love it.

Comm3: Jenni is showing great interest in what she is saying. I can sense that this is a pivotal change in perspective, and it is so different from how she normally speaks of the tinnitus that I want to explore and encourage this new approach.

Client4: Ahh yeah, jeez, yeah… (looks bright and relaxed in her facial tone with a smile and relaxed eyes)

Client5: I feel like I need to just embrace the sound as much as I can cos I know that then your body will get the message that it's all right.

CP4: Yeah. (with a similar mirrored relaxed facial expressions then changing to a thoughtful/inquisitive look on my face)

Comm4: When working with trauma, one of the key transformational processes is the new meaning that is arrived at by Jenni regarding their trauma (Altmaier, 2013). I am aware of this here and feel that this could be a significant moment in the therapy. I want to direct Jenni to explore further her perception of this less threatening context she is placing the sounds in.

CP5: If the sounds were a tattoo, thinking about some of the quite meaningful things that you, that you, er, came up with last week about the tinnitus, in that there was things that it has kind of revealed to you and made a value of that you never had that value before…

Comm5: Here I was referring to a comment she had made after the EMDR session which was that, if it hadn't been for the tinnitus coming up, she never would have realised how she was making choices moving away from the kind of life she wants. She was living with so much anxiety and experiential avoidance that her relationship and job had stopped being the source of joy they once were. Looking at my choice of language here, I did not say exactly what I meant and this could have been confusing for Jenni. I said, 'You never had that value before' when I in fact meant, 'You never placed that value on tinnitus before.'

Client6: Yeah.

Comm6: By demonstrating openness and staying present with the difficult feelings – or, in this case, the tinnitus – I am modelling being present to Jenni, that it is OK to stay with the difficult thing and to be curious, and play with the concept.

CP6: What do you think the tattoo would be to represent the tinnitus?

Client7: Errm…so we've got, like, different… I've got like probably about four or five different noises… (small laugh)

Comm7: This time Jenni's laugh is more of a belly laugh, sounding deeper and more genuine rather than the nervous laugh she often exhibits.

Client8: Erm, there's one, well it doesn't always sound like that but it goes "tch tch tch". (Jenni demonstrates the sound audibly with a smile on her face) So that always reminds me of like a train or a lawnmower. I mean like a thing in the garden. (making circular motions with her hand) Like a sprayer.

CP7: Er, a sprinkler?

Comm8: I am aware that here I am offering a word to describe the item Jenni is trying to think of. Although I know it is imperative that Jenni uses language she is comfortable with and which is part of her own meaning-making system, on this occasion I am confident that she was genuinely struggling to remember the word for the sprinkler as she was using hand gestures to demonstrate as she struggled for the word.

Client9: A sprinkler, yeah. So I think about that…err… Then this side (holds left ear)…no, actually up here (holds top of head)… It's so bizarre, but it sort of sounds like a vacuum cleaner (nervous laugh while covering her eyes with her hand) cos sometimes I think it's the vacuum cleaner downstairs (nervous laugh), so I'm like, oh, that's the lady downstairs from Romania (laughing from her belly).

Comm9: We both laugh here. I was confident that Jenni was not feeling I was laughing at her but that we were sharing a humorous moment, and the humour itself felt as if it was defusing the previously fused self with pain of the tinnitus.

Client10: And those are the ones I've come up with at the moment. And then sometimes I'll think of, like… I remember when we were younger we had seashells, putting our head (holds an imaginary seashell to her ear while smiling), and also…

Comm10: Normalising the abnormal

CP8: OK, love that idea. I think it's really clever, and by putting a kind of identity to each of the sounds, especially such a nice one like a shell, or the sound of a sprinkler…

Client11: Makes you see it as something positive, cos if they're negative then it's gonna be annoying.

CP9: Yeah. That's a brilliant strategy. DId you come up with that yourself?

Client12: Well, one was, I started hearing the train already and then somebody told [me], 'Why don't you think about this?' So there was that, and then when I first started it, it freaked me out and I got so scared. Then I started mocking it cos I was so irritated that I had a new sound, so I used to go (makes sound of a train) (nervous laugh). I was just so done with it.

Comm11: Jenni talks about being annoyed at a new sound so she began ridiculing it.

Client13: I was like, I'm just gonna make fun of this.

CP10: Yeah, brilliant.

Comm12: As I watched back, I noted my encouragement. At times it seemed quite exuberant, but I did not want to fall into the role of being a cheerleader, yet at the same time I recognised how difficult this smalls step had been for Jenni, and I felt that an honest acknowledgement of this would reflect my genuine admiration and pleasure that she had made this step. I was pleased in the end that I had voiced this admiration as it showed my genuine warmth and appreciation for her engaging with the work and moving towards not only cognitive restructuring but also an emotional restructuring in terms of her acceptance of her critical-self. I felt that this beginning of a change in her relationship with her critical-self/anxiety would be pivotal in also generalising this acceptance to the tinnitus as her tinnitus was fused so tightly with her fears and anxiety.

Client14: Now when I hear it, I'm like, 'Ahh, cool – train.' Or, 'OK, erm, sprinkler.'

Comm13: I am struck here with the natural way Jenni has begun her own 'cognitive defusion' technique. I feel quite sure that the previous work we did together, where she began defusing herself from her inner critic, may have been a catalyst and stepping stone for this very different approach to her usual perspective on inner criticism. I decide to share this

with Jenni to be transparent and to also add understanding to the importance of what she is doing in order to encourage more of this kind of thinking and reframing.

CP11: That's amazing, Jenni. You're doing a brilliant job because you're doing basically a psychological technique which is called defusion, but you're doing it very naturally in your own way. What it means, instead of feeling tied up with an experience so it becomes fearful, you are detaching yourself from it by mocking it – 'Oh, it's that again'. Making light of it basically and taking control. You're noticing but it's not a big thing, and you're going, 'Ah, there's that thing again, but it's just that,' and, errr, that will be very important as part of the habituation and this new perspective.

Comm13: I am being honest and open here with Jenni. I feel that naming the process of what she is doing will make her even more aware of her chosen thoughts, and it adds another level of removal from the cognitive-fused tinnitus, a kind of meta-cognitive element. It is also adding transparency.

CP12: We're talking a lot about perspectives today aren't we?

Client15: Yeah, yeah, yeah. I think reframing would be really good. I think sometimes it's frustrating cos like, when I'm talking to you…when I'm talking to people, I can be super positive and I can give like amazing advice, and I can, erm, be really bubbly and try and be really happy, but then like at work like I'm really happy and bubbly and stuff but like in my head it's just like…it's so frustrating. It's like, in my head there's this negativisitism person that lives in there, in that half, and I'm just like, can't I just have the bubbly person rather than the negative person? Cos I'm so tired of… Like, in my head I'm so negative and I'm so doom and despair, sometimes. If I feel a symptom or anxiety, I'm just like, oh gosh, that's that, I need to phone the doctor now. I'm not gonna… This is bad. And meanwhile it's like… You know like when the palpitations started? I was like, oh my gosh, what's happening? I'm clearly not doing things right. And er, yeah. And then I met up with him, and I felt so bad

because it was nothing and I was just like, oh, I've wasted his time. So in my head it's so negative and it's frustrating, cos in my heart it's quite bubbly. But I think it's the 'John' thing as well, so I've tried to stop the negativism and been like, OK John, I want to take out the negativity. (mimes picking up the negativism out of her head and putting it on the desk)

As soon as Jenni said 'take out the negativity', I realised that she had not reached a point of acceptance still. I felt a bit hopeless here, as we had done so much work together and it felt like one step forwards and three steps back. (I notice here I am thinking of lack of progress, linked to doing rather than being.) I had neglected to re-present Jenni with her internal critic once we had a dialogue between them last week. This was my error. Normally with face-to-face sessions, when I do this exercise I physically mime the action of removing the part of them that is the inner critic or the problematic internal voice. This adds another contextual dimension of defusion. Often the client will breathe a sigh of relief when you take the part out temporarily and will want the externalised part as far away from them as possible in the room before the defusion contextualising conversation take place. However, often after this exercise they will choose to accept the part back inside themselves, and I had meant to actually physically hand Jenni the imagined part of herself back to physically receive it. The client then describes how the part is looking and feeling now, what is different about them, having had a conversation with it and engaging in depth with the deeper meaning of this element of themselves. It is here that you can check for any remaining fusion. I was concerned that this would have given Jenni the wrong idea, that we aim to take out the inner critic rather than accept it, and I wanted to put this right.

CP13: Well, with John…with John… Cos I just realised…we took him out last week, didn't we, and we had him over here and we were talking about him, and I just realised actually I didn't give him back to you…

Client16: (laughs nervously)

CP14: Normally I would do. Maybe we can continue with that today…because I… I just wanted to say first of all that I noticed that you said you don't want that person there. You wanna be the bubbly happy person all the time. First of all, I just wanted to say, we're all human, and what makes us human is the changeability and fact that we might be happy one day and another day we're gonna be sad, and it's like this: (using hand to draw a wavy line in the air). And if we were like that, just the same (I use my hand to draw a line going straight across with no variation), we'd be dead.

Client17: (nervous laugh)

CP15: There's no living thing…there's no living being that can be like that, it's impossible. And so we have to know we're living beings; we feel things. As you said, your family feels things deeply; as you said, your family feels things very deeply. It's a sensitive family, so knowing that, we know there will be some days when we will feel down, and part of being OK long-term emotionally is accepting we are definitely going to feel down. We're going to feel anxious. So that's one thing I can promise you: you will, that I will, we all feel down and anxious on some days. And perhaps the secret is knowing that is going to happen, and when it happens allow it to come out, allow the feeling to come out. Like you sat in your car, you allowed the feelings to come out – good! You probably needed that time to allow the tears to come, and you were kind to yourself; you let yourself have that time. nd sometimes we need to do that, to let the emotion out to process things. And you've got things you can do – you've got the havening to do to help you if it's too overwhelming to help you work through it.

Comm15: Havening (Sumich et al., 2022) is a SE technique that has been shown to reduce distress levels. The client is guided to perform a physical soothing touch on their own body stroking over the shoulders down to elbows. It is generally mirrored by the therapist as it is performed to engender a sense of increased empathy and togetherness. (Petrocchi et al.,

2016, posit that a visual mirrored action can result in a further soothing and activating of the parasympathetic system.) This was offered to Jenni in her first session as she was highly emotionally unregulated. She used it regularly between sessions and also taught it to her partner, as she found it so beneficial. We returned to it sometimes in therapy sessions as a stabilisation technique to reduce physiological arousal due to the trauma symptoms.

CP16: Erm, but if we can think we're gonna feel like that sometimes – sometimes we're gonna feel really low, or really anxious, but…the other thing we do now is, we're not always gonna feel like that; we know we're gonna feel different tomorrow or the next day, so then we know it's gonna change and it's gonna come up again, and there can be a comfort in that and in knowing this too will pass. Unfortunately, it's the same with the happiness, and when thing are great, if we can just say, 'OK I feel amazing, OK I know it won't last, but…it feels great right now,' that little bit of realism will help to temper the ups and the downs.

Comm16: I wanted to normalise anxiety and enable a reframing of emotion as being something necessary in order that Jenni could reduce the shame she felt at feeling emotion. Whenever she got upset, she often followed the tears with 'I should be stronger', so there was a clear element of shame here attached to her perceived inability to cope. Jenni had always had the expectation from her parents to 'keep going' and 'you must stay strong', which meant that she had not learnt to accept her difficult emotions as she had always been taught to push them down, hence her appraisal of emotions as weakness.

I felt that, if I expressed in our therapeutic relationship a complete acceptance of Jenni's difficult emotions – this modelling of unconditional acceptance of tears as in fact necessary – this might make our relationship a place where a different perspective of difficult emotions might begin to develop within her own schema. However, on listening back, this felt like too much talking from me. In hindsight, I could have been more effective with our time together had I used an experiential intervention such as the double-sided paper exercise from ACT to

illustrate how, if we want the joy, we must also have the sadness and anxiety at times. However I also wanted to get straight on to finishing off the handing back of John, so it did not feel right to go straight into another exercise. I made a mental note that this was something to do in future.

CP17: But, erm, so if we come back to John for a minute…

CP18: So I've got John over here now. When we took him out initially, he was quite spiky and had big eyes and a scared look on his face and, erm, since then some things have happened. You've had a dream. What does he look like at the moment?

Client18: He's not as spiky. I think he's a bit more…

Client19: I guess last time he was really shardy, I guess. He's sort of more sort of… He has shards as well, but he's more sort of, erm, like a blow fish (making smooth fluid movements with her hand) would be more mouldable,

Comm17: I was relieved that clearly the client had arrived at some stage of defusion with her inner critic, as John is now looking different and eliciting a different emotion from her.

CP19: Yes. And the shards he has: are they out all the time or come out sometimes?

Client20: Yeah, erm, well, this week I need to do a bit better. I think it's called rumination: I have a thought or a worry that will circle, and go again and go again, like the same thought, and I will just go, arrgh, so yeah…

Comm18: Again, Jenni is being self-deprecating of her efforts as being inadequate.

CP20: So on John, what does that look like?

Client21: Erm, he's very bouncy. (Jenni is bouncing her hand around in front of her but has a smile on her face. The movements and expression on her face look more energetic, her face looks much more relaxed and she has a sparkle in her eye, almost a cheeky expression. When she had previously described John before her dream about him and dialogue in which I guided her to engaged in dialogue between her compassionate self and John, her hands had been in claw-like shapes and she was making attacking like gestures as she spoke about him. Her energy and expression look different now, much less threatening and jerky.)

Client22: …and he's very fluidy, but spiky. He's very mouldable

CP21: He's quite bouncy and 'mouldable'?

Comm19: I use the exact terminology as used by the client.

Client23: Yeah.

CP22: Rather than sharp and hurty.(I make a micro-nervous giggle sound.)

Comm20: I was a little embarrassed by my use of a non-word 'hurty' and was partly aware it wasn't one which Jenni had used herself, yet I was interpreting the difference in her physical gestures when describing John and wanted to check back with her if I had understood the meaning behind this gesture this correctly. As I spoke, I was also mirroring her hand actions that she had used at the time so she could see the difference in her own physical gestures.

CP23: What kind of personality has he got? What are his eyes like? Are they different or…you know, what kind of expression?

Client24: I think, yeah, he's got really expressionate eyebrows, and I don't think he's always, like, bad. He's got good eyes, but sometimes he's got really…like, his eyes will change shape…depending on his mood, I guess. (tiny giggle)

CP24: So the eyebrows are very expressive and, like…

Comm21: I am mirroring her facial expressions that she used when describing him.

End 00.30.45

Session ending and evaluation

Just after the recorded segment ended, Jenni began to return to her non-acceptance of the tinnitus. With hindsight, I can see here that I allowed myself to get distracted from my ideal aim with the ACT in this session, which was to further develop creative helplessness. I adapted my plan for the session when Jenni came out with her home-made metaphor as this seemed so organic and too good an opportunity not to capitalise on her natural tendency to further restructure her cognitive appraisal of tinnitus. Jenni, however, very quickly returned to her non-acceptance of the tinnitus sounds and repeatedly stated how she wanted to get rid of them. Although it offers short-term relief, persistent psychological avoidance of the undesired trauma can result in failure to process the event successfully (Wardecker et al., 2018). This was a concern. My own imposter syndrome rears its head as I listen back to this recording (Clance & Imes, 1978), and I often feel critical of my tone. Although I only recently discovered that my client's volume levels were set lower on my PC, which means my voice appears louder on the recording all the way through, I still felt that my voice was too loud, that I appeared too confident, too brash. Of course, this could have been partly the act of listening back to myself – no one likes the sound of their own voice – but I felt that it was more than that, that I was almost trying too hard. I wondered if this was also being picked up by Jenni, and how this might affect her. (I have always been known in my circle of friends as the one with the loudest voice, particularly when on the phone I wonder if this might be my own.) Since writing this process report, I have been ultra-aware of my own energy when in a session and have tried to speak a bit slower, to pause a little longer before reacting, to keep my voice down a bit more. This must be particularly relevant when working with PTSD, when

the vagus nerve (Porges, 2006) is in action and sensory input can be triggering. But then I remind myself that Jenni is still in effect living through the current trauma of her tinnitus, that of course she cannot fully process and accept it, as she is still being impacted currently. This is the difficulty of working with a current trauma-induced illness.

Despite this, Jenni's distress levels have reduced significantly in our time together (see Appendix 1). She is now engaging more fully with the world; she is able to leave her house and has applied for a new job in London, which she is excited about; she is seeing her family and friends more; she is attending more day trips; and she has begun reading again, having finished her first book in 18 months. She is allowing herself to have special time to cry, and honouring this time. But she still worries about her health if she gets a palpitation.

Development of meaning-making was a significant part of the journey for Jenni. Although she could not change the fact that tinnitus was present and would likely remain with her for life, the only thing that could change her response internally and externally to the sounds was her perception of the tinnitus. Initially, it represented all that was uncontrollable and terrifying and unknown in her life, and it was enmeshed with loss. Perhaps this is why the death of her grandmother came to the surface so vividly when she chose to work with EMDR. Something clearly shifted after our EMDR session, but this shift had begun even before the session.

Endings and outcomes

For Jenni, EMDR was a useful integrative intervention once stabilisation was strong in order to process a particularly deep and hidden trauma relating to loss and fear. Once this had been processed, she was less physiologically activated, was functioning less in the SAM and more in the VAM system, and as a result was able to commit more fully to the behavioural interventions that would address her EA.

The EMDR allowed a processing of a deeply hidden grief which somehow in Jenni's mind had become connected with loss and lack of control. Unprocessed grief for a very beloved family member appeared linked with the 'unknown' of the tinnitus and the triggering nature that her COVID-19 experience had left her feeling even more out of control, more isolated from loved ones and experiencing loss of quality of life due. Once she had reached a stronger state of creative helplessness, this seemed to unlock further her ability to re-frame the meaning of the tinnitus. Following from this, she was able to take more steps to address the avoidance, and as she experienced herself taking actual positive steps towards the life she wanted, despite the tinnitus remaining, she caught glimpses of what might be possible. As she had reduced her internal levels of threat and overwhelm by using the stabilisation techniques she had learned, she was able to take titrated steps back to her valued life. She was able to leave the house more happily after her EMDR session and was then able to engage with nature; she began listening to birdsong and the wind and the laughter of her niece on their day trip. This successful outing, where she realised she had not heard the tinnitus all day, was a huge breakthrough for her, and it made her realise that there was hope for habituation and that 'not noticing the tinnitus was as good as it not being there'. By the end of our eighth session, her CORE-10 score had also significantly diminished to below clinical levels (see Figure 2). However, despite the work we have done thus far, Jenni is still finding it hard to let go of the 'control' aspect of her tinnitus.. There are some similarities here to chronic pain symptoms in that we were working with a client's inability to accept something very painful and very present.

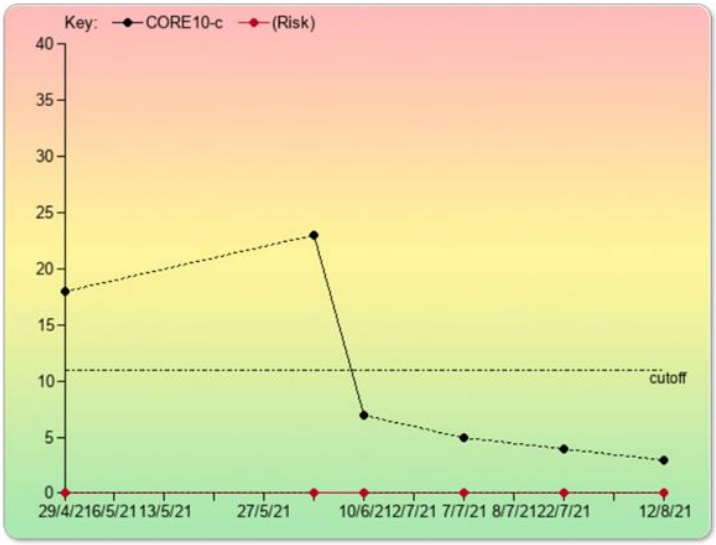

Figure 2. CORE-10 measure over time

After this session, we went on to have one more session that focused on creative helplessness and we developed Jenni's acknowledgement that fighting tinnitus was not necessarily the answer. She had applied for a new job and was speaking up more and her 'fawning' (Lueders et al., 2022) behaviour was diminishing. Although she was gradually reducing her resistance to the tinnitus, she still was finding it a struggle, but together we discussed her progress and co-constructed an alternative appraisal about her tinnitus (Appendix 2). In general Jenni felt that she was on the right road to recovery and that it would take time. In general she was much happier with her life, and at the end of our final session I told her that my door was open should she feel she would like further support in the future. See appendix 4 for a summary of the revised formulation with regard to integration to the host model of TF-CFT.

Reflections

From the outset, I was aware of the similarities and differences between us as individuals and how this might affect any power dynamics between us in therapy. Jenni was in her early twenties, and so a good twenty years my junior. Although we were both white females, she had moved from South Africa to England about a year ago and came from a very different

political and social background. We discussed some of these differences and what they might bring to the therapy. Of particular relevance seemed the fact that, where Jenni grew up, there were regular kidnappings and hostage-takings. This had happened to her family when she was a child, but she had slept through the entire thing and was told about it the following morning. Her parents had been tied up and her bedroom had been barricaded from the outside, but she had been unaware. However, the climate of mistrust and the extra vigilance required to live there felt very different to her from the freedom of the UK, and she was still adjusting to this.

I was also aware that Jenni was a paying private client and that exchange of money has an intrinsic effect on the power balance, placing me in the role of 'expert'. This could have fed into my feelings of imposter syndrome, which I sometimes feel due to earning money as a professional therapist despite still studying for my doctorate. I therefore made sure that I was very clear from the outset that I was still a student of counselling psychology, and this was made even clearer as I asked Jenni for written consent to use her work in my studies. She was genuinely happy to do this and I felt it addressed the power imbalance to an extent, philosophising that the intrinsic power imbalance is unavoidable to some extent in the therapeutic relationship. Throughout the therapy, I regularly asked for her feedback on sessions and explained to her that it was important for me to receive her honest comments, as this was how we would tailor the sessions to help her better. Jenni became accustomed to these verbal check-ins, and although at first she seemed a little uncomfortable in saying that there had been aspects she might have changed about a session, I always received this feedback very gratefully and expressed my value of this. This enabled a real tuning in of our therapeutic relationship, which is after all the biggest healing factor (Finlay, 2015; Feixas & Botella, 2004), and I felt it gave her a real voice in our work together.

In reflecting on this piece of work, I feel that I have come home to some basic truths about myself as a trainee counselling psychologist. In my first year, my intense desire to relieve the

suffering of my clients was pointed out. Buddhism terms this desire *bodhicitta*, and although this is a trait which one would expect in a therapist, it can be problematic to a point. I saw it returning in this piece of work as my bodhichitta felt very strong when I was feeling helpless to do anything to relieve the tinnitus for Jenni. Faced with Jenni's frequent returning to focus on the unwanted aspect of tinnitus, I felt even more inadequate, and as I have worked as a professional therapist before training, I often feel an extra layer of imposter syndrome. It feels like an added pressure that I ought to be getting it 'more right' now. I saw that it was a possibility that Jenni was picking up on my desire to 'do therapy well', and that this may have compounded her own feelings of helplessness. I feel gratefully reminded that, just as when we ask our clients to slow down, sit with the emotion, feel it and allow it to pass through, this is truly at the heart of what a counselling psychologist must feel comfortable with too, in that sometimes just 'being', offering unconditional positive regard and genuinely accompanying our client on their journey is at the heart of the therapeutic relationship. Even though I am being paid to provide a service, I do not need to be 'doing' all of the time. Sometimes just 'being with' the client can be the catalyst for the beginning of acceptance, which can lead to change.

Even though cognitive reappraisal around the tinnitus was clearly beginning to develop, it was far from complete. Having considered the possibility of a transference of helplessness, I did then remind myself that Jenni was learning to live with a chronically debilitating, life-changing condition and that I ought to be realistic in what I expected of myself and of Jenni in terms of her journey with me. Maybe what we were doing was 'enough', and maybe I ought to offer more of the compassion to myself that I was encouraging Jenni to foster in herself. It meant a lot when Jenni said, 'I never appreciated silence before…and now when I can't get it, I appreciate it more than ever. I wouldn't have known how much I need and appreciate peace if it hadn't been for the tinnitus. In a funny way, it has given me an appreciation for many aspects of my life that I took for granted, and in some ways it has given me back my freedom.' I am satisfied with this piece of work.

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Appendix 1

Jenni's hierarchy of fears/avoidances due to tinnitus	Level of distress/anxiety
1. Working from home in a quiet time and the tinnitus getting louder	2/10
2. Going in to work in an office (refuses to work on site)	4/10
3. Going to sleep without the fan on	6/10
4. Going outside without headphones in	7/10
5. Going on a day trip, scared of new sounds	9/10
6. Reading a book without music on	9/10
7. Lying on the floor in a silent room just relaxing	10/10

Blue indicates this exposure was complete

New reduced levels of anxiety around the above behaviours. Green indicates an improvement

Jenni's hierarchy of fears/avoidances due to tinnitus	Level of distress/anxiety
1. Working from home in a quiet time and the tinnitus getting louder	1.0/10
2. Going in to work in an office (refuses to work on site)	2.2/10
3. Going to sleep without the fan on	3.0/10
4. Going outside without headphones in	4.2/10
5. Going on a day trip, scared of new sounds	5.3/10
6. Reading a book without music on	6.3/10
7. Lying on the floor in a silent room just relaxing	7.3/10

Appendix 2

Collaboratively reconstructed new meaning in the trauma appraisals (reconstructing a positive self-schema (Meichenbaum, 1977)) – Session 8.

I might feel still overwhelmed by tinnitus or physical ailments sometimes but…

I know this feeling won't last forever, it WILL change, and…

If I am really worried it's OK to check it out with the GP and wise to do so.

I know that most people with tinnitus take a year or two to adjust and I can see improvements in me coping in just a few weeks, and…

Even if I feel upset I have support around me in my partner and family, this might make us stronger.

I am already living a life that I prefer and sometimes I DO forget about the tinnitus. So maybe I can learn to not get anxious about other ailments too.

Appendix 3

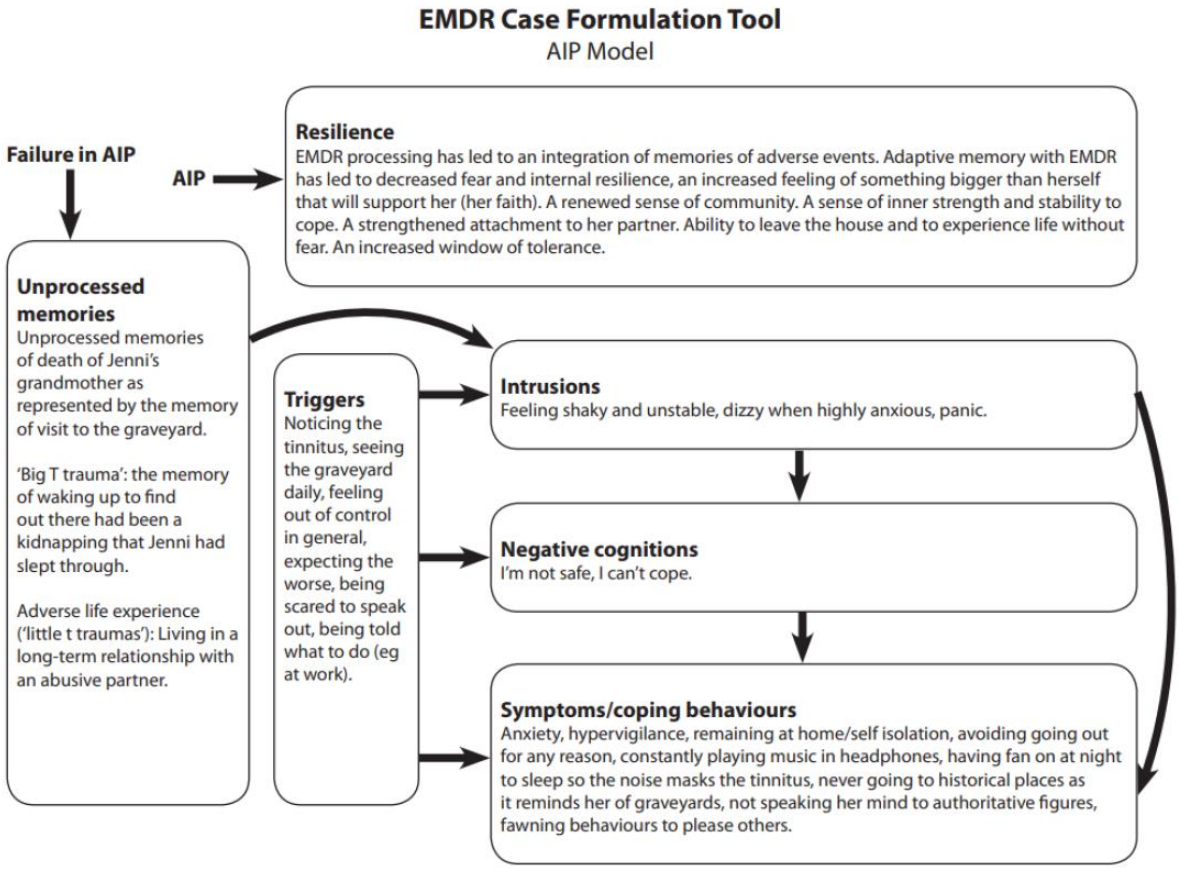
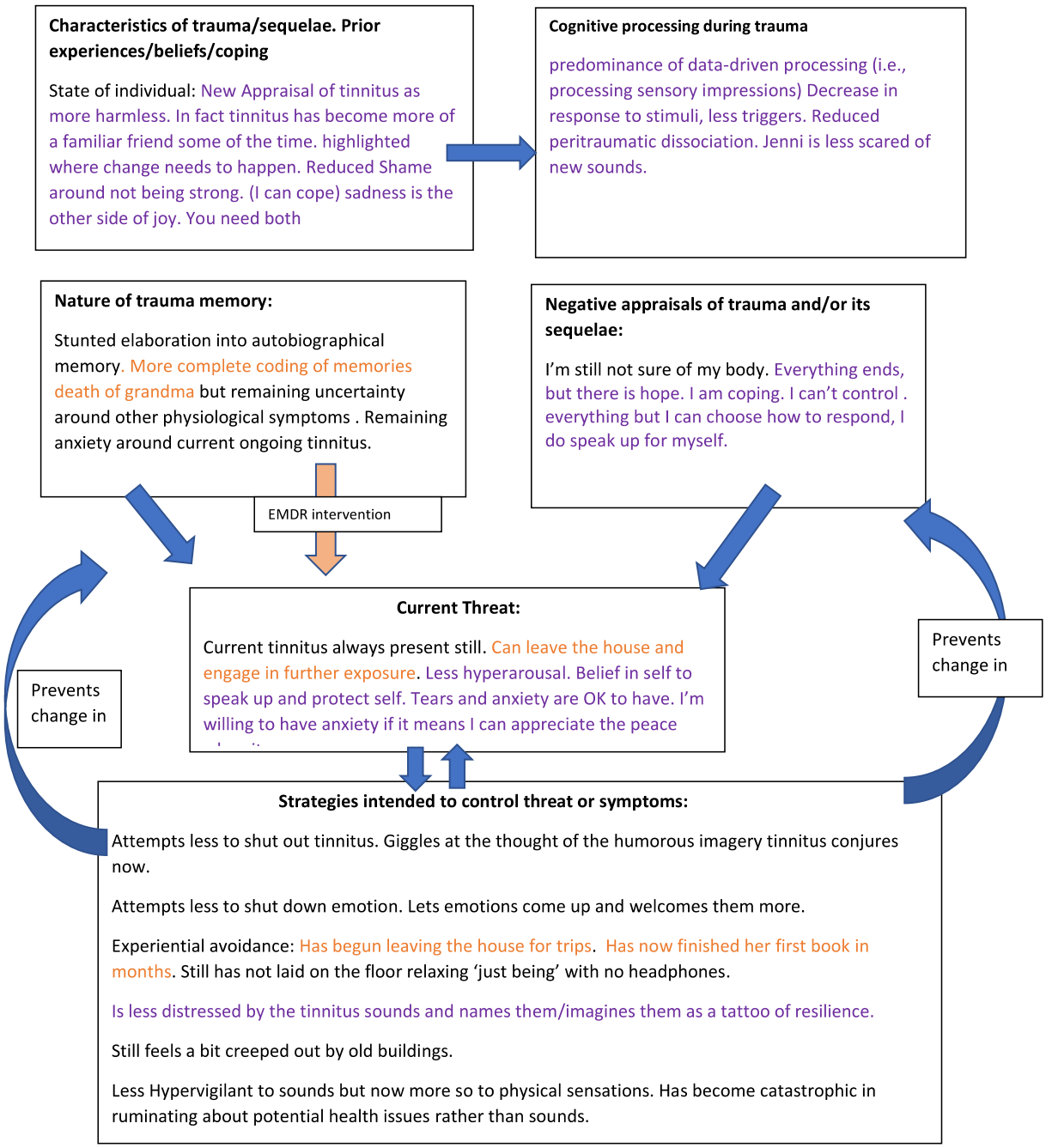


Figure 3. Jenni's case formulation from an EMDR perspective

Appendix 4

Ehlers and Clarke revised model diagrammatic formulation post therapy with additional influence of ACT & EMDR.



Key: ACT influences are in purple EMDR intervention results are in orange

Persistent PTSD