A Multiple Case Replication Design Mixed Methods Study Exploring the Outcomes, Experiences and Underlying Processes of a Values Based Self-Affirmation Intervention for Women with Bulimia Nervosa

Ella Cullen

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'All we can say is: (1) that most of our mental operations are inseparable from images, or are produced by images.'...

'(2) That those images closely correspond to wishes or repulsions, to things we want or do not want, so that this wanting or not wanting seems to be the ultimate motive power in our psychology.'...

'(3) That inevitably, people will reveal in their thoughts and speeches, in their outlook on life and in their lives themselves, the quality of the images filling their minds'

Ernest Dimnet, 1929

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1. ABSTRACT

Numerous studies have reported psychological benefits associated with the practice of values-based self-affirmation. However, there is little evidence regarding their clinical applicability. Many of the purported benefits of values-based self-affirmation are highly relevant to people with bulimia nervosa (BN). This study used a multiple case study design in order to investigate the effectiveness, underlying mechanisms and acceptability of a brief (three week) intervention focussing on the development and practice of values-based self-affirmations with people who have BN. Two participants were recruited from an Eating Disorders (ED) Service waiting list. They completed questionnaires measuring cognitions associated with ED, attitude towards change, self-esteem, self-compassion, body image acceptance, psychological flexibility, cognitive defusion, and SELF repertory grids over four time points. Following appointments qualitative data was collected, and on completion of the intervention participants were interviewed, regarding their experiences. Pre and post intervention behavioural measures of BN were also collected. The use of a personal values-based self-affirmation intervention was associated with reductions in behaviours associated with BN, enhanced attitude towards change and reduced discrepancy between self and ideal self. There was little convincing evidence that the intervention was associated with a reduction in cognitions associated with ED. A very small degree of change in a positive direction was observed in relation to self-esteem, self-compassion, body image acceptance, psychological flexibility and cognitive fusion. However, scores did not reflect Reliable Change in these processes. Overall, results appeared to be slightly better explained by theory underpinning Personal Construct Psychotherapy rather than Acceptance and Commitment Therapy. However, neither theoretical explanation fully accounted for the data. Participants generally found the intervention to be acceptable. The results add novel findings to the literature regarding the use of values-based self-affirmation within the treatment of BN. They suggest that a brief values-based self-affirmation intervention might be a useful adjunct to evidence based treatment of BN. However, the case study design that is utilised in this study limits the degree to which these results may be generalised and future research should explore this further.

2. INTRODUCTION

2.1 Background

2.11 Overview

This study examined a number of topics where there is a vast amount of literature therefore, full review of its entirety is beyond the scope of the project. A brief summary of findings, relevant to the rationale behind the intervention and the processes by which it might be expected to achieve its effects, are outlined below.

The introduction begins with a description of the literature search strategy and the psychological disorder at which the intervention under investigation is targeted. Current treatment and brief interventions within the field are described. Core elements of the intervention are then examined; values-based self-affirmation and visual imagery. These elements are intrinsically linked to the concept of 'self' which is outlined. Four of the dependent variables in this study are explored; self-esteem, self-compassion, attitude towards change and body image. Additional dependent variables of personal constructs, psychological flexibility and cognitive fusion are detailed in a description of the two alternative theoretical explanations of processes underlying the intervention; those underpinning Personal Construct Psychotherapy (PCP) and Acceptance and Commitment Therapy (ACT). Researcher positioning, the dual role of the therapist and researcher, rationale for and clinical relevance of the intervention are then considered. Finally the research questions and propositions are stated.

2.12 Literature Search Strategy

Initially, a preliminary search for review papers was carried out using Ebscohost Psychology and Behavioral Sciences Collection and PubMed. The following search terms were used in various combinations: 'positive', 'self', 'affirmation', 'values' and 'bulimia'. Key references from relevant review articles were then obtained. These terms were then used in different combinations to search the following databases: PsycINFO; PubMed; Medline; Scopus; and Web of Science. Studies were excluded if they were not reported in English. The reference lists of relevant articles were searched and additional papers deemed most relevant were obtained. Searches on the World Wide Web were also conducted using internet search engines such as 'Google' and 'Google Scholar'. Particular authors were contacted if articles were not accessible freely on the internet (for example, articles in submission or in press).

2.13 Bulimia Nervosa

Given DSM-5 was not released at the time of conducting this study, criteria will relate to DSM-IV-TR. Further, this study focuses on Bulimia Nervosa, thus, this subtype will be described in more detail than the other subtypes. According to the Diagnostic and Statistical Manual of Mental Disorders (4th Edition; Text Revised; DSM-IV-TR) [American Psychiatric Association (APA) 2000], eating disorders (ED) are divided into three diagnostic categories: Anorexia Nervosa (AN), Bulimia Nervosa (BN), and Eating Disorder Not Otherwise Specified (EDNOS). The DSM-IV-TR lists criteria for BN including: recurrent episodes of binge-eating (i.e. eating a larger amount of food than most people would eat during a similar period of time and circumstances, accompanied by a sense of lack of control); the use of compensatory behaviours, such as purging, exercising or fasting, to prevent weight gain; that the binge-eating and compensatory behaviour occur at least twice a week, on average, for three months; and undue concern of body shape and weight.

Hoek and Van Hoeken (2003) reviewed the prevalence and incidence of eating disorders (ED) and found an average prevalence rate for BN of 1% and 0.1% for young women and young men, respectively. The incidence of BN was found to be 12 cases per 100,000 of the population per year. Standardised mortality rates (the fraction of the observed mortality rate compared to the expected mortality rate in the population of origin) are estimated to be 7.4 for BN (Van Hoeken, Seidell & Hoek, 2005). However, despite the potentially serious consequences of the disorder, Van Hoeken et al. concluded that only a minority of people who meet stringent diagnostic criteria for ED are seen in mental health care. Most people with BN are not receiving treatment (Fairburn, Welch, Doll, Davies & O'Connor, 1997).

2.14 Current Treatment

NICE (2004) recommendations regarding psychological interventions for the treatment of BN advise a self-help programme such as computerised Cognitive Behavioural Therapy (CBT) as a first step. Where guided self-help is insufficient for the individual concerned, 16-20 sessions of Cognitive Behaviour Therapy for Bulimia Nervosa (CBT-BN) should be offered over a period of 4-5 months. For those who do not respond to treatment or who do not want CBT, other psychological interventions such as Interpersonal Psychotherapy should be considered.

Various cognitive-behavioural models have been developed for BN (Cooper, Wells & Todd, 2004; Fairburn, Cooper & Cooper, 1986; Fairburn, Cooper & Shafran, 2003; Waller, Kennerley & Ohanian, 2007). Treatment manuals for BN include those developed by Fairburn, Marcus & Wilson (CBT-BN; 1993), Schmidt & Treasure (1993) and Fairburn (CBT-E; 2008). The evidence base regarding the

effectiveness of CBT-BN and CBT-E (Fairburn & Harrison, 2003; Fairburn et al., 2009), has made them the treatments recommended for BN by NICE (2004).

Family therapy is another commonly used treatment for ED and produces particularly good results for adolescents and young people (Carr, 2009; Dare, Eisler, Russel, Treasure & Dodge, 2001; Eisler at al., 2000; Eisler, 2005; NICE, 2004), including for adolescents with BN (Schmidt, Lee, Beecham, Perkins, Treasure et al., 2007).

The relatively high rate of drop out in treatment for BN is a particular obstacle to treatment. Drop out rates of 43% in individualised Cognitive Behavioural Therapy, 28% in group Cognitive Behavioural Therapy and 23% in combination treatment involving brief psychotherapy have been reported (Blouin, Schnarre, Carter, Blouin, Tener, Zuro & Barlow, 1995; Fassino, Abbate-Daga, Piero, Leombruni & Rovera, 2003; Steel, Jones, Adcock, Clancy, Bridgford-West & Austin, 2000). Reasons proposed for drop out in these three studies included higher levels of depression and hopelessness, difficulties trusting and relating to others, and being less co-operative and more predisposed to anger.

2.15 Brief Interventions

There is a growing interest in brief psychological interventions as a way of increasing access to therapy. Advocates of 'stepped care', such as Haaga (2000) and Katon, Van Korff, Lin, Walker, Simon and Bush (1999) recommend that briefer, simpler and the most accessible therapies should be offered first. In 2000-2001 the average cost of 16-20 sessions of CBT for BN was £967. CBT literature on adults with BN suggests that most change occurs within the first four sessions (Schmidt et al., 2007). In line with these findings, a number of brief interventions for the treatment of BN have been developed. For example, based upon Treasure, Katzman, Schmidt, Troop, Todd and De Silva's (1999) work, Dean, Touyz and Rieger (2008) and Feld, Blake Woodside, Kaplan, Olmsted and Carter (2001) found that a brief Motivational Enhancement Therapy (MET) group was effective as an adjunct to inpatient treatment, and as a pre-treatment group, respectively, for people with ED. Arcelus, Whight, Brewin and McGrain (2012) reported that a brief form of interpersonal therapy may be effective for people with BN. Schmidt, Bone, Hems, Lessem and Treasure (2002) describe a brief intervention involving the use of expressive writing that was trialled with people with BN and Binge Eating Disorder.

The current study investigates the effectiveness, underlying mechanisms and acceptability of a new brief intervention for people with BN, which involves the development and practice of values-based self-affirmations.

2.2 Values-Based Self-Affirmation

2.21 Self-affirmation

According to self affirmation theory (Steele, 1988) people are motivated to maintain the integrity of the self, i.e. the sense that one is a good and appropriate person, 'appropriate' meaning that one's behaviour fits with cultural norms. People naturally engage in self-affirmation following a threat, usually by emphasising positive qualities in a separate domain to the one in which threat is experienced (Tesser, 2000). Within the literature, there appears to be three main methods of self-affirmation: traits, kindness and personal values. Values-based self-affirmation is the most commonly used method (McQueen & Klein, 2006), and the one which was used in the present study.

2.22 Values

Values are conceptualised as mental structures existing at a higher level of abstraction than attitudes (Howard 1995), which also have an affective component (Schwartz, 1996). Various definitions of values emphasise their role in setting and pursuing goals. Harris (2009a, p.189), defines values as "statements about what we want to be doing with our life: about what we want to stand for, and how we want to behave on an ongoing basis. They are leading principles that can guide us and motivate us as we move through life." According to Schwartz (1994), values are "desirable transsituational goals, varying in importance, that serve as guiding principles in the life of a person or other social entity." Therefore, the primary content of a value is the type of goal or motivational concern it expresses. Values fulfil five criteria: they are concepts or beliefs, pertain to desirable end states or behaviours, transcend specific situations, guide selection or evaluation of behaviour and events, and are ordered by relative importance (Schwartz 1992).

The role of personal values on a sense of self is widely recognised. Joas (2000), Rohan (2000), Rokeach (1973), and Schwartz (1992), conceptualise values as enduring personal constructs. Kouzes and Posner (2002), suggest that the identification of one's personal values is necessary in order to find one's own true voice. Bass and Steidlmeier (1999), also highlight the role of values in determining true self.

Hitlin (2003) conceptualises values as the core of one's personal identity. According to Hitlin, social identity influences personal identity via values. Sparrowe (2005), also questions the possibility of exclusively 'personal' values and suggests that a values set is developed through interaction with others.

Various studies have explored the relevance of personal values in ED, (e.g. Halse, Honey & Boughtwood, 2007; Pollack, 2003). The role of personal values clarification as a motivational tool has been recognised by a number of different psychological therapies, (see 'Attitude towards Change') (Hayes, Strosahl & Wilson, 1999; Miller, 2000; Vitousek, Watson & Wilson, 1998). Within the field of ED specifically, Treasure's (1999) Anorexia Nervosa Workbook includes exercises that involve identifying and ranking personal values in terms of importance, comparing these values with those that were held before the onset of anorexia, and looking at the pros and cons of attempting to gain approval by living in accordance with the values of others.

2.23 Reported benefits of values-based self-affirmation

The role positive self affirmations may have in reducing defensiveness would appear to be a well established one (McQueen & Klein, 2006; Sherman & Cohen, 2006). Affirming personal values has been found to attenuate perceptions of threat (Keough, 1998; Sherman & Cohen, 2002; Steele, 1988), and reduce defensive responses to threatening information (Sherman, Nelson & Steele, 2000). For example, affirming a value of personal importance has been found to increase the likelihood of participants retaining threatening type 2 diabetes information and undertaking an online risk test (Van Kronningsbruggen & Das, 2009). Epton and Harris (2008), found that asking participants to elaborate on past acts of kindness encouraged them to make changes to their diet through increased fruit and vegetable consumption. Harris (2011), concluded that positive self-affirmation led to more open-minded appraisal of otherwise threatening information, higher levels of mental construing and reductions in the likelihood of self-control failure, which all contributed to changes in health related behaviour. Whilst focusing people on valued intrinsic aspects of self e.g. unconditional relationships and core personal values has been found to reduce defensiveness, focussing on extrinsic aspects of the self such as conditionally accepting relationships and socially imposed standards has been found to have the opposite effect (Arndt, Schimel, Greenberg & Pyszczynski, 2002; Schimel, Arndt, Pyszczynski and Greenberg, 2001).

Several studies have highlighted the role the affirmation of personal values has in helping individuals to cope with stress. Creswell, Welch, Taylor, Sherman, Gruenewald and Mann (2005), found that the affirmation of personal values buffered neuro-endocrine responses to stress, i.e. lowered cortisol levels, and also buffered psychological stress responses in those with higher dispositional self-resources. Zagorski and Pressman (2011), also observed positive effects of the affirmation of personal values and social relationships on stress reactivity. Sherman, Bunyan, Creswell and Jaremka (2009) concluded that a

writing exercise that affirmed values of personal importance buffered the effect of an academic stressor on the sympathetic nervous system within a group of undergraduate students.

There is some evidence that self-affirmation impacts upon mood. Koole, Smeets, van Knippenberg & Dijksterhuis (1999), found that values-based self-affirmation increased positive mood. Exeline and Zell (2009), found that asking participants to recall a self-affirming situation promoted positive emotion and feelings of strength.

Effects of self-affirmation upon self-esteem are mixed. Koole et al., (1999) reported that values-based self-affirmation was associated with increases in self-esteem. Armitage (2012) discovered that asking participants to elaborate on past acts of kindness enhanced body satisfaction and reduced the level of threat to self in rating body satisfaction in a community sample of adolescent girls. This was associated with increased self-esteem and shifts away from using body weight and shape as a source of self-esteem. Armitage and Rowe (2011), found that completing a kindness questionnaire led participants to experience no greater self-feelings or self-esteem, but more positive interpersonal feelings. Wood, Perunovic and Lee (2009), reported that affirming the personal quality of kindness, (every 15 seconds for 4 minutes), improved the mood of those with high self-esteem but worsened the mood of those with low self-esteem. To explore this further, Stapel and van der Linde (2011) demonstrated that affirming personally important values increases self-clarity but not self-esteem, whereas affirming positive qualities of the self, (attribute affirmation), has the opposite effect.

Logel and Cohen (2012), suggest that values affirmation increased participants' ability to deploy self-regulatory resources and thereby meet weight related goals. Further benefits of values affirmation include removing the tendency of people with low self-esteem to anticipate poor performance on a task (Spencer, Fein & Lomore, 2001) and reducing rumination about a frustrated goal (Koole et al., 1999). Vohs, Park and Schmeichel (2013) cautioned, however, that positive self-affirmation, if followed by an experience of failure, can result in reduced motivation and consequently increase the likelihood of goal disengagement. This finding was attributed to individuals internalising the implications of failure.

Legault, Al-Khindi and Inzlicht (2012), have reported that studies examining the neural signals of the brain's error detection system suggest that the affirmed brain is more oriented toward learning opportunities. In line with this, values affirmation has been credited with reducing the gender achievement gap in a college class (Akira, Kost-Smith, Finkelstein, Pollock, Cohen Ito,& 2010) and the racial achievement gap in a school setting (Cohen, Garcia, Purdie-Vaughns, Apfel & Brzustoski, 2009).

Affirming personal values is also associated with various positive interpersonal effects. Schimel, Arndt, Banko and Cook (2004), found an association between positive self-affirmation and a reduction in thoughts about social rejection. Lomore, Spencer and Holmes (2007) found that thinking about a value shared with their partner bolstered women with low self-esteem's perception of their partner's acceptance of them. Spencer et al. (2001), also found that by affirming other important parts of the self, participants were better able to cope with threats to interpersonal aspects of the self. Stinson, Logel, Shepherd and Zanna (2011) associated a positive self-affirmation condition with improvements to participants' relational security and social behaviour. Jaremka, Bunyan, Collins and Sherman (2011) observed that when presented with a relationship threat, people with low self-esteem reacted less defensively if they were given the opportunity to self-affirm. Thomaes, Bushman, de Castro and Reijntjes (2012) found that the affirmation of personal values was associated with increases in pro-social feelings and behaviours. Ward, Atkins, Lepper and Ross (2011) found that a self-affirmation manipulation in which participants were asked to focus upon an important personal value lowered the psychological barrier to conflict resolution.

2.24 Relevance of the benefits of values-based self-affirmation to BN

Given there can be serious physical health implications for those with BN, and that treatment often begins with psycho-education related to this as a means of enhancing motivation/attitude towards change, the potential use of self-affirmation in increasing openness to information and promoting health behavior change is of clear relevance to the treatment of those with BN.

The suggestion that the affirmation of personal values supports individuals in coping with stress is also encouraging regarding the applicability of this technique to the BN population. It would appear to be commonly accepted that stress, and a lack of alternative, more adaptive ways of coping with it, has a significant role in the development and maintenance of BN. The NHS Choices website, for example, states that emotional stress is one of a variety of reasons why the development of BN might be triggered; 'bulimia can sometimes occur following stressful situations or life events. For example, it can develop after a traumatic experience, such as a death or divorce' (NHS Choices website). Smyth, Wonderlich, Heron, Sliwinski, Crosby, Mitchell and Engel's (2007) study highlights the link between increased stress and the likelihood of binge and purge events in women who have BN.

Indeed, the reported benefits that affirming personal values would appear to afford to mood, self-esteem and interpersonal relationships, have clear relevance to BN given that Fairburn, Cooper & Shafran's (2003) transdiagnostic cognitive model of ED (see Figure 1) upon which CBT-E (Fairburn, 2008) is

based, names low self-esteem, mood intolerance, perfectionism and interpersonal (LIFE) difficulties as potential maintaining factors.

The positive effects of enhanced self-regulation, acceptance and sense of achievement would also be expected to benefit those with BN by improving ability to cope with emotions and self-esteem, which as mentioned previously are two core components of Fairburn, Cooper and Shafran's (2003) transdiagnostic cognitive model of ED.

The role values are believed to play in guiding goal directed behavior, developing a sense of self and increasing motivation provides further reasons to consider the application of values-based self-affirmations to the treatment of people with BN.

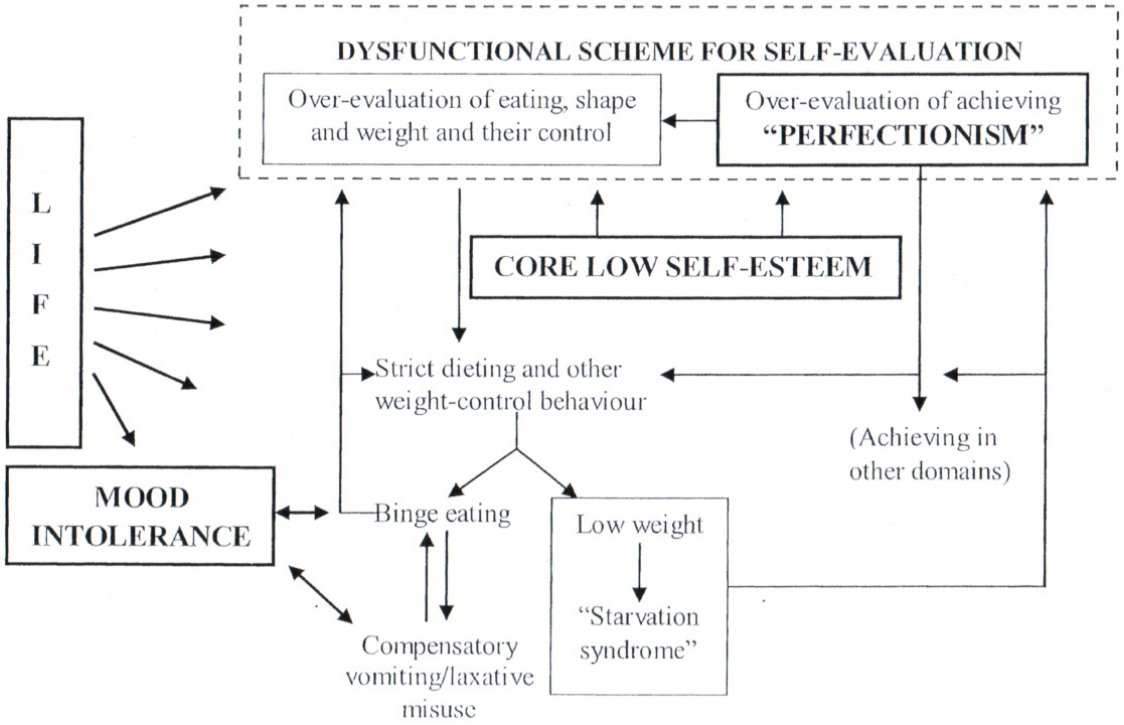
2.25 How might values-based self-affirmations work?

According to self-affirmation theory (Steele, 1988) and cognitive adaption theory (Taylor, 1983), self-affirmation works by boosting self-images (Steele & Liu, 1983) or self-worth (Sherman & Cohen, 2006) thereby buffering the individual against the adverse effects of stress. Steele (1988) proposes that people respond to threat by affirming alternative self resources unrelated to the provoking threat. Self-affirmations fulfil the need to protect self-integrity in the face of threat. This enables people to deal with threatening events and information in a more open and even-handed manner without resorting to defensive biases. Correll, Spencer and Zanna (2004) argue similarly that self-affirmation encourages the adoption of an objective and unbiased perspective resulting in the more careful consideration of potentially threatening information and greater sensitivity to argument strength.

There are various other perspectives on how values-based self-affirmations might achieve these effects. One opinion is that values-based self-affirmation increases positive affect (Koole et al., 1999; Tesser, 2000). However, Sherman (2013) contests this, suggesting that mood effects have not generally been observed to result from values-based self-affirmations, and argues that this may more likely be the case for other forms of affirmation, such as positive feedback.

The possibility that values-based self-affirmation boosts self-esteem has been discounted by Schmeichel & Martens (2005). McQueen & Klein (2006) and Sherman and Cohen (2006) conclude that there is little evidence to support the theory that writing about personally important values raises self-esteem. Creswell

Figure 1 – The 'transdiagnostic' model of the maintenance of eating disorders ('Life' is shorthand for interpersonal life) – From Fairburn *et al.* (2003)



et al. (2005) suggest that the role of self-esteem in values-based self-affirmation is a mediating one. The effect of affirming personal values on stress responses was found to be moderated by trait self-esteem, with those participants low in self-esteem reporting the most stress.

Crocker, Niiya and Mischkowski (2008) propose that values-based self-affirmations reduce defensiveness via self-transcendence rather than self-integrity, i.e. self worth or self image. The idea behind this is that writing about values of personal importance may remind people of what they care about beyond themselves. Crocker et al. report findings that regardless of which values participants ranked as most important, values-based self-affirmation reduced shame and had a greater effect on love and feelings of connectedness than on general positive feelings which in turn increased acceptance of health threatening information.

Wakslak & Trope (2009) offer another explanation. They suggest that thinking about one's values and why they are important shifts cognitive processing towards super-ordinate and structured thinking, enabling the individual to structure information and see the bigger picture. Participants were found to perceive a greater degree of internal personal structure, to increasingly identify actions in terms of their end-states and to perform better on tasks requiring abstract, structured thinking than those requiring detail-oriented, concrete thinking.

Sherman (2013) suggests that values-based self-affirmations work in three ways. Firstly, they enhance self-resources and, therefore, the ability to cope with threat, and self-regulate at times when resources would otherwise be depleted (Muraven & Baumeister, 2000). Secondly, values-based self-affirmation affords people a broader perspective with which to view information and events in their lives. Thirdly, values-based self-affirmation leads to a decoupling of the self and threat, reducing the threat's impact on the self (Sherman & Hartson, 2011).

2.26 Application of self-affirmation to clinical populations

The majority of research exploring the effects of using self-affirmations has been experimental using student or general populations. There has been a call for more research that investigates the long-term (Armitage, 2012) and 'real world' (McQueen & Klein, 2006) use of self-affirmations.

The numerous potential psychological benefits that have been linked to the use of self-affirmations indicate that this is an area that is worth exploring in terms of its applicability to clinical populations. Given stigma has been implicated as a hindrance to seeking help (Farina, 1982), Lannin, Guyll, Vogel and Mado (2013) reported that a self-affirmation intervention reduced self-stigma associated with seeking

psychotherapy. There is also evidence to suggest that individualising the content of self-affirmations according to which 'disorder' a person may have may be beneficial. For example, one study by Kinnier, Hofsess, Pongratz and Lambert (2009) reported that different self-affirmations were preferred by people diagnosed with depression to those diagnosed with anxiety disorders. Luke and Stopa (2007) call for further research in order to establish how self-affirmations might be usefully implemented in a clinical setting.

As highlighted, many of the purported benefits of self-affirmations, such as increasing openness to information and promoting health behavior change, supporting individuals in coping with stress, improving mood, self-esteem and interpersonal relationships, have an obvious relevance to people with BN. However, it would appear that the use of self-affirmations with people who have BN has not been investigated.

The current study seeks to investigate the effectiveness of using a brief intervention focusing on the development and practice of values-based self-affirmations with clients who have a diagnosis of BN. The current study is also carried out based upon the premise of the utility of exploring how clients experience such an intervention and how clinical psychologists might have a role in facilitating clients' use of self-affirmations.

Most studies exploring the effects of values-based self-affirmation have been carried out within experimental conditions and the affirmation condition has used methods such as writing about a value, or rank ordering the importance of values using a list such as that compiled by Allport, Vernon and Linzey (1951). The present study involves i) the clarification of participants' own personal values, ii) the development of positive statements about the self that are said in the present tense and relate to a personal value in action, e.g. 'I show other people that I care about them', and iii) the practice of these values-based self-affirmations over a period of two weeks. Visual imagery concerning memories of values in action is used alongside the practice of affirmations. Thus, visual imagery will now be explored.

2.3 Other Areas of Literature Relevant to the Intervention and BN

2.31 Visual Imagery

Stopa (2007) defines image as a mental representation that occurs without the need for external sensory input. Images are not merely imitations, but memory fragments, reconstructions, reinterpretations, and symbols that stand for objects, feelings or ideas (Horowitz, 1970). Numerous models of cognition acknowledge the role of both verbal and image components, including the dual coding hypothesis (Paivio,

1969), Teasdale and Barnard's (1993) interacting cognitive subsystems model and Wells' (2000) self regulatory executive functioning model.

Particularly in relation to emotional experiences and imagery, experimental research has demonstrated that word-picture combinations result in stronger emotional responses than sentences (Holmes, Mathews, Mackintosh & Dalgleish, 2008) and that cognitions in the form of mental images impact upon emotion more powerfully than those in verbal form (Holmes et al, 2008). Holmes, Geddes, Colom and Goodwin (2008) propose that mental imagery acts as an emotional amplifier. Positive imagery amplifies positive emotion (Holmes, Mathews, Dalgleish & Mackintosh, 2006; Holmes, Mathews, Mackintosh & Dalgleish, 2008). Positive imagery can also reduce emotional distress (Holmes, Arntz & Smucker, 2007), pain and the stress hormone cortisol (Manyande, Berg, Gettins, Stanford, Mazhero, Marks &Salmon,1995).

Further, images are understood to play a central part in more cognitive aspects, such as the representation of goals, and guiding goal directed action (Conway, Meares & Standart, 2004; Carver & Scheier, 1999). For example, cognitions involving imagery are also more likely to move people into action than those that have been thought about verbally (Carroll, 1978; Johnson, 2005; Libby, Shaeffer, Eiback & Slemmer, 2007; Markman, Gavanski, Sherman & McMullen, 1993; Pylyshyn, 2006; Sanna, 2000). Additionally, autobiographical memory is understood to be linked with an individual's working self-concept which is represented predominantly through self-images (Conway & Pleydell-Pearce, 2000). According to Goldberg and Maslach (1996) reliving positive aspects of our past contributes to developing a sense of personal continuity over time.

With regards to ED, and BN specifically, there would appear to be a long-standing interest in the role images may play (e.g. Cooper, Todd & Wells, 1998; Schaverien, 1994; Somerville, Cooper & Hackmann, 2007). In 1998, Esplen, Garfinkel, Olmsted, Gallop and Kennedy carried out a randomised control trial to evaluate the use of guided imagery in the treatment of BN. Results included reduced bingeing and purging, improved attitudes in relation to eating and body weight, improved experience of aloneness and ability to self-soothe. Ohanian (2002) reports a case in which BN symptoms reduced by 50% following eight sessions of conventional CBT; following one session of imagery re-scripting to modify self-related beliefs there was an almost complete cessation of the remaining binge-purge behaviours.

It is anticipated that the development and practice of values-based self-affirmations, accompanied by the use of visual imagery concerning memories of values in action will impact upon participants' self identity. The imagery used in the current study is based upon participants' memories of positive personal experiences that demonstrate their personal values in action. Imagining (remembering) positively may be

easier for many individuals than trying to think positively using words (Di Simplicio, 2012). Given the focus on self-identity, this will now be discussed in more detail.

2.32 The Self

Historically and particularly from a psychodynamic perspective, the self has been considered an important topic in ED. The absence of positive self identities is seen as contributing to a compensatory focus upon body weight as the primary source of self-definition. Orbach (1985) referred to the making of the individual as the raison d'etre of the therapeutic work and focussed on an exploration of who the client is, and wishes to be.

Within the field of cognitive therapy, Vitousek and Hollon (1990) highlighted the role of self-schemas in the development of ED. Self-schemas are highly elaborated and accessible representations of the self which serve an important role in motivating and regulating behaviour (Banting, Dimmock & Lay, 2009; Holloway, Waldrip & Ickes, 2009; Kendzierski, 1990). Positive self-schemas predict effective behaviours necessary for successful performance in a domain, whereas negative self-schemas are associated with anxiety, behavioural inhibition, low levels of involvement in a domain and contextually dependent evaluations of the self (Feiring, Cleland & Simon, 2010; Ledoux, Winterowd, Richardson & Clark, 2010; Lips, 1995). Stein (1996) proposed that people with ED tend to possess few positive self-schemas and many negative schemas.

Extending this understanding further, Somerville & Cooper (2007) found that relative to non-clinical controls people with BN reported significantly more negative self (core) beliefs which were commonly related to themes of self-value, failure, self-control and physical attractiveness. The self now has a prominent position in several recent cognitive theories of ED (Cooper, Wells & Todd, 2004; Fairburn, 2008; Fairburn, Cooper and Shafran, 2003; Waller et al., 2007).

In addition to self schemas and self beliefs, Campbell (1990) introduces the construct of 'self-concept clarity', which refers to the definition, internal consistency, dependency and temporal stability of the different aspects of the self. Low self-concept clarity is associated with low self-esteem, negative affectivity, high levels of neuroticism, depression and anxiety and being more influenced by external self-relevant stimuli (Butzer & Kuiper, 2006; Campbell, 1990; Campbell, Trapnell, Heine, Katz, Lavallee & Lehman, 1996), and poor decision-making strategies (Setterlund & Niedenthal, 1993).

Various theorists go further to suggest there is more than one self, thus identifying a further complexity to our understanding of 'self'. For example, Higgins (1987) refers to 'actual', 'ideal' and 'ought' selves.

Scott and O'Hara (1993) observed that actual-ideal discrepancies are associated with depression, and actual-ought discrepancies with anxiety. Markus and Nurius (1986) refer to 'possible selves', i.e. cognitive structures representing ideas about what a person may become.

Stein, Corte, Chen, Nuliyalu & Wing (2013) claim that, despite recognition of its importance in the eating disorders, there is a lack of interventions which address self-concept directly. Thus, they attempted to address this by developing an Identity Intervention Programme for women with eating disorders which focuses upon building new positive self-schemas. A randomised clinical trial found the intervention to be associated with a decrease in desire for thinness. An increase in the number of positive self-schemas was associated with a significant increase in three psychological well-being scale scores including autonomy, self-acceptance and purpose in life; significant increases were seen in general medical health, vitality and emotional well-being/mental health.

Commonly researched aspects of self concept and relationship with self implicated in ED are those of self-esteem and self compassion. These will be looked at next.

2.4 Psychological Processes which may be Impacted by the Intervention

2. 41 Self Esteem

Smith and Mackie (2007) define self-esteem as "the positive or negative evaluations of the self, as in how we feel about it," (Smith & Mackie, 2007, p.107). Further, according to Greenberg, Solomon & Pyszczynski's (1997) Terror Management Theory, self-esteem is derived from one's sense of living up to cultural standards.

Within ED, low self-esteem has been found to increase the risk of body image and eating problems (Jacobi, Hayward, de Zwaan, Kraemer, & Agras, 2004). Button, Sonuga-Barke, Davies and Thompson (1996) reported that girls with low self-esteem at age 11-12 were at significantly greater risk of developing the more severe signs of eating disorders by age 15-16.

Garner (2004) states that 'most theories consider low self-esteem to play a major role in the development and maintenance of eating disorders'. This includes Fairburn et al.'s (2003) transdiagnostic model of ED and Vohs, Bardone, Joiner, Abramson and Heatherton's (1999) interactive model of bulimic symptom development. In fact it has been found that women high in perfectionism, and who consider themselves to be overweight, are likely to exhibit bulimic symptoms only if they have low self-esteem (Bardone, Vohs, Abramson, Heatherton & Joiner, 2000, Vohs, Bardone, Abramson & Heatherton, 1999; cited in Polivy & Herman, 2002).

A review of the evidence has shown there to be an inconsistent relationship between self-affirmation and self-esteem (McQueen & Klein, 2006) and this complex issue was discussed earlier in sections 2.23 and 2.25. Armitage and Rowe (2011) suggest that further research exploring this relationship would benefit from using multiple means of measuring self-esteem.

A slightly different concept to self-esteem, is that of compassion which will now be explored.

2.42 Self Compassion

According to Gilbert's Social Mentality Theory (Gilbert, 2005) it is one's relationship with self rather than core beliefs, schemas or self-evaluations that is key to individual wellbeing. A form of relationship towards ones self is that of self-compassion. This is conceptualized by Neff (2003a; 2003b) as taking a positive emotional stance with oneself and is a form of self-acceptance:

> "being open to and moved by one's own suffering, experiencing feelings of caring and kindness toward oneself, taking an understanding, non-judgmental attitude toward one's inadequacies and failures and recognizing that one's experience is part of the common human experience"
>
> (Neff, 2003b, p. 224)

Self-compassion has been associated with being less self-critical, anxious, depressed and emotionally labile, feeling more socially connected and being more satisfied with life, happy, optimistic and self-accepting (Gilbert & Irons, 2004; Gilbert & Procter, 2006; Leary, Tate, Adams, Allen & Hancock, 2007; Neff, 2003b; Neff, Kirkpatrick & Rude, 2007). Self-compassion has also been found to promote motivation to engage in health related behaviours such as smoking cessation (Kelly, Zuroff, Foa & Gilbert, 2009).

Of specific relevance to ED, self-compassion is negatively related to maladaptive perfectionism (Neff, 2003a) emotional intolerance and severity of binge eating symptoms (Webb & Forman, 2013). Ferreira, Pinto-Gouveia & Duarte (2013) have observed that increased shame and body image dissatisfaction predicted increased drive for thinness through decreased self-compassion. Self-compassion has also been found to better account for body preoccupation, eating guilt, body and weight concerns than self-esteem (Wasylkiw, MacKinnon & MacLellan, 2012).

Neff and Tirch (2013) make a compelling argument for a relationship between the conceptualization of self-compassion and process in ACT, based upon both being related to the stance one takes towards oneself. ACT is one of the two alternative theories proposed by this study to account for the effects produced by the practice of values-based affirmations.

In addition to self-esteem and self compassion, attitude towards change and body image are considered to be important factors within ED. These will now be discussed.

2.43 Attitude Towards Change

The importance of eating disordered individuals' readiness to change has long been recognized. Treasure et al. (1999) concluded that readiness to change is more important than the specific type of treatment in determining improvement and the development of a therapeutic alliance.

Prochaska and DiClemente's (1983) transtheoretical model of behaviour change is a commonly used point of reference in the treatment of ED. According to this model, people pass through a series of stages when change occurs; precontemplation, contemplation, preparation, action and maintenance. Motivational Enhancement Therapy (MET; Miller, 2000), an approach to working with ambivalence, is based upon this model. MET aims to highlight discrepancies between people's behaviour and their overall values and goals. Treasure et al. (1999) applied the use of MET to the treatment of ED. Dean et al. (2008) found that a brief MET group as an adjunct to inpatient treatment for ED appeared to foster longer term motivation and engagement and to promote treatment continuation. Feld et al. (2001) report that a pre-treatment group for people with ED increased motivation to change, reduced depressive symptoms and increased self esteem. Research in the field of diabetes has also suggested that Motivational Enhancement Therapy may be a useful adjunct to Cognitive Behavioural Therapy (Ismail, Maissi, Thomas, Chalder, Schmidt et al., 2010).

Another psychological therapy in which motivation is targeted through the clarification of personal values is Acceptance and Commitment Therapy (ACT; Hayes et al, 1999). Vitousek et al. (1998) also describe how they applied the use of personal values as a motivational tool to the psychological treatment of ED. Mulkerrin (2011) explored the area of personal values in people with anorexia nervosa and concluded that the benefits of values clarification may depend on stage in recovery. Mulkerrin also noted, however, that proponents of ACT suggest that values are used to enhance the motivation of individuals with anorexia nervosa at an early stage of therapy (Merwin & Wilson, 2009).

It is anticipated that the practice of self-affirmations in the present study might impact positively upon attitude towards change and also upon body image.

2.44 Body Image

As noted in section 2.13, the presence of disturbed body image is a requisite symptom for BN in the DSM-IV-TR (APA, 2000). Definitions of body image include 'the picture of our own body that we form in our mind' (Schilder, 1950) and 'your personal relationship with your body' (Cash, 1997). Low body satisfaction during early and middle adolescence has been found to predict later signs of more global mental distress, including lower self-esteem and depressive symptoms (e.g. Stice & Bearman, 2001; Keel et al., 1997). Individuals with body image dissatisfaction have been found to present with negative cognitive distortions (Williamson, 1996). Polivy and Herman (2002) suggest that low body satisfaction is the single strongest predictor of eating disorder symptomatology among women.

2.5 Theoretical framework

Within case study research, there is typically a lack of clarity in the boundaries between phenomenon and context, and a large number of variables that might be considered. Therefore, in order to guide data collection and analysis, the prior development of theoretical propositions is generally recommended (Yin, 2009).

Based upon the literature that has been reviewed in relation to self affirmation and personal values, two alternative theories will now be proposed which might facilitate exploration of the underlying mechanisms for any change that participants experience as the result of practising values-based self affirmations: those underpinning Personal Construct Psychotherapy (PCP) and Acceptance and Commitment Therapy (ACT). These theories were selected due to their applicability to the intervention and the availability of supervisor expertise, rather than their being systematically compared with and found to be better alternatives to other theories relevant to the treatment of ED, such as Cognitive Behaviour Therapy.

The intervention provided in the present study is not based upon either of these theories. It is not an aim of the study to support or refute either theory but to see which theory best accounts for the data collected and elucidate the processes underlying the way in which values-based self-affirmations work. It is expected that neither theory will provide a complete explanation of the processes underlying values-based self-affirmations. These are largely unknown, which is reflected in the variety of explanations that have been proposed. Further, the two theories are not conceptualised as being diametrically opposed to each

other. Indeed there are similarities between the two theories. However, they would appear to be sufficiently different in order to guide and provide structure to the collection and analysis of data.

2.51 Theory underpinning Personal Construct Psychotherapy

Personal Construct Theory (PCT; Kelly, 1955), the theory upon which Personal Construct Psychotherapy is based, views people as scientists, who seek to anticipate their world based upon the development and testing out of 'constructs'. If a person is functioning optimally, their construct system will be revised in the face of invalidation. Psychological disorders usually involve a lack of such revision despite repeated invalidation (Button, 1990; Walker & Winter, 2005). For example, those diagnosed with anxiety and depression typically show 'tightness' or rigidity in their construing (Winter, 2003). In those with BN, tighter and more polarized construing has been associated with greater severity of ED (Dimcovic & Winter, 2007).

Individuals with ED have been found to have a more negative view of themselves, reflected by the distance between self and ideal self, and to believe that being slim would bring them more in line with their ideal self (Munden, 1982). Crisp and Fransella (1972) present case studies that suggest clinical change only occurred for two anorexic young women once weight was no longer of central importance in defining the self. Construal of the self has been found to be an important prognostic indicator in ED, with greater uni-dimensionality and more extreme self-construing associated with a poorer treatment outcome (Button, 1980). More positive self-construing has been associated with better outcome in the treatment of ED (Button & Warren, 2002). Button (1993) has discovered interesting differences between the various forms of ED. He reports that bulimics are much more likely than anorectics to produce constructs concerned with eating, weight or appearance. Button suggests this implies that bulimics may not like a particular construction of self whereas anorectics may feel that their whole sense of self is at risk.

Within PCP an individual's constructions of key relationships are seen as influencing their constructions of themselves. Eating disordered behaviours are conceptualised as arising from interpersonal invalidation and are adopted as a means of gaining control or anticipating events, such as interactions with others. A system of constructs related to eating, weight and shape become the individual's best means of predicting and controlling their world (Winter & Button, 2010). The individual's world gradually becomes increasingly constricted to issues related to eating (Button, 2005). Over time eating disordered behaviours may become so meaningful as to become a way of life (Button, 1993). For example, Fransella and Crisp (1970) report a case study in which an obese person's belief that life was more meaningful as an overweight person appeared to be hampering their ability to achieve permanent weight loss.

Based upon clinical experience Ugazio (2013) combines PCP with a systemic approach. Ugazio has observed that within families where eating disorders arise, semantics of power dominate the conversations. Winner/loser and strong-willed/yielding polarities mean that some win and experience success whereas others lose and give up. These semantic polarities have numerous implications for the individual's development of a sense of self. The relationship also has an exaggerated importance in terms of defining self, which contributes to a particular sensitivity to criticism. As Schembri and Evans (2008) have observed, bulimics appear particularly dependent on the opinions and approval of their partner. Behaviour tends to be overly attributed to others and takes the form of either adapting or resisting.

Therapy for ED has two primary aims according to Button (1993); to separate self from weight and to facilitate the elaboration of other self related constructs. This involves identifying, focusing upon and validating the areas within the person's life in which they are functioning well and experiencing success. One of Button's (1990, cited in Button, 1993, p.225) concluding points is that "perhaps psychological treatment should focus less on problems and more on the enhancement of 'positive' constructs from the client's standpoint."

Aside from impacting upon symptoms of ED, Personal Construct Psychotherapy has been commonly associated with more positive self-construing, greater perceived similarity with others and resolution of dilemmas (Button, 1993). One example of this comes from a PCP group in which clients were found to experience an improvement in self-esteem, become less extreme in their construing of self and others and construe themselves as more similar to others (Button, 1987).

Ugazio (2013) considers how the semantic polarities which prevail in ED impact upon the therapeutic relationship. The therapist may be regarded as an opponent rather than an ally. This may result in an ongoing battle, from arranging appointments, to refusing to co-operate, to attempting to disqualify the therapist. Once the client is prepared to form an alliance, it is the therapist's job to ensure that this is an alliance 'for' rather than 'against' and to give salience to semantics other than the critical one.

The repertory grid is an interviewing technique, devised by Kelly (1955) and commonly used within PCP. Various forms of repertory grid have been developed for and/or used with eating disordered individuals such as the Situations grid (Coish, 1990; Neimeyer & Khouzam, 1985) and the Self and Body Image Grid (Ryle and Evans, 1991). Button (1993) describes the use of the SELF-GRID the development of which was based upon the premise that a person's self-esteem should be measured in terms of his or her own personal constructs. The present study captures change within participants' constructs with the use of the SELF-GRID.

To summarise, PCP is concerned with an individual's constructions of self and others. A central aim of PCP in the treatment of ED is to separate self from weight and to facilitate the elaboration of other self related constructs. This may be achieved by focusing upon positive areas of the client's experience and would be expected to result in more positive self-construing. Elaborating other areas of construing might also be expected to provide an alternative basis for anticipating others.

The intervention that is offered to individuals in the present study would appear to share its aims with those of PCP in the treatment of ED with regards to elaboration of self, enhancing the degree to which self is construed positively and improving ability to make sense of others. Values based self affirmations are understood to impact upon self concept or construction of self, self-esteem and interpersonal relationships. The intervention in this study involves i) helping the individual to identify personal values of importance in various areas of their life, ii) focussing upon these areas through the use of positive self affirmations and iii) validating these self affirmations through the use of visualisations that draw upon memories of the relevant personal values in action. Emphasising the personal nature of their own values might raise the possibility that others are driven by different values and thereby contribute to the development of a better understanding of others. Furthermore, PCP offers methods by which changes in the construction of self and others can be assessed, such as the SELF Grid, which also provides a measure of self-esteem.

2.52 Theory underpinning Acceptance and Commitment Therapy

Acceptance and Commitment Therapy (ACT) is a trans-diagnostic, process oriented therapeutic approach which attempts to renegotiate the relationship the individual has with his or her thoughts and feelings. Particular aims of this approach are acceptance of symptoms, and flexibly and effectively taking action in line with personal values. This increased psychological flexibility is conceived to contribute to a reduction in symptoms.

ACT is underpinned by Relational Frame Theory (RFT), (Barnes-Holmes, Hayes & Dymond, 2001; Fletcher & Hayes, 2005), wherein individuals relate objects to one another be they physical, mental or emotional through the use of language. Relational frames take various forms and afford important benefits such as allowing learning to occur without direct experience (Hayes & Smith, 2005). However, they may also contribute towards distress. For example, through temporal relations people might use thoughts and words to worry about the future (Hayes & Smith, 2005) and/or relive the past (Blackledge, 2004). Evaluative relations, whereby comparison with an ideal contributes to a sense of unwarranted inadequacy (Harris, 2009b) might be seen as having a particular relevance to the development and maintenance of ED.

ACT conceptualises psychological inflexibility as being at the heart of psychological disorder. Psychological inflexibility is created by six interacting processes. Firstly, *self as content* is where the individual's sense of self is defined moment to moment by the thoughts and feelings he or she has that are generated by environmental stimuli including relational responding (Blackledge, 2004). Secondly, *cognitive fusion* is buying into thoughts as though they are objectively true (Luoma & Hayes, 2003). This may lead individuals to live in their heads (Hayes, Wilson, Gifford, Follette & Strosahl, 1996), i.e. ruminating over the past or worrying about the future. This ultimately results in the third process, *loss of contact with the present moment*, the only place where an individual can take *action* (the fourth process) in accordance with their *values* (the fifth process). The individual will naturally try to avoid the consequent unpleasant internal experiences, a process which is referred to as *experiential avoidance*, the sixth process (Hayes, Luoma, Bond, Masuda & Lillis, 2006). This may lead to behaviours that serve as distractions from internal experiences, such as binge eating for example (Keville, Byrne, Tatham & McCarron, 2008). Such behaviours again divert the individual's attention from acting in accordance with values and goals.

ACT, therefore, attempts to redress the six processes of central importance to the model in order to enhance psychological flexibility. See Figure 2 for the hexaflex diagram which provides an overview of the model's aims (Hayes, Luoma, Bond, Masuda & Lillis, 2006). The individual is supported to develop 'acceptance' of, and openness to, all internal experiences whether pleasant or unpleasant. 'Cognitive defusion' is the process wherein the subjectiveness of thoughts and feelings are emphasised in order to reduce the individual's perception of them as objective truths (Hayes et al., 2006). The individual is encouraged to 'be present' and use language in order to describe internal and external events rather than predict or judge. A stance of 'self as context' is facilitated so that the individual maintains a consistent sense of self whilst noticing external and internal experiences without attachment to them. 'Clarification of values' is pursued with the aim of identifying personal values rather than socially compliant ones or ones that stem from cognitive fusion or avoidance (Hayes et al., 2006). The individual is then helped to problem solve how they might take 'committed action' consistent with their personal values. Dahl, Wilson and Nilsson (2004) describe an ACT-based intervention for stress and pain which placed a particular emphasis on the clarification and exploration of how to take action in accordance with personal values.

Mulkerrin (2011) reviews the current evidence base regarding ACT processes and concludes that there is promising evidence regarding the mediating effect of ACT-consistent processes on ACT intervention outcomes. In order of the size of the evidence base this includes acceptance, psychological flexibility,

cognitive defusion and values-based action. She notes however, that within research there would appear to be a focus on certain ACT-consistent processes to the exclusion of others.

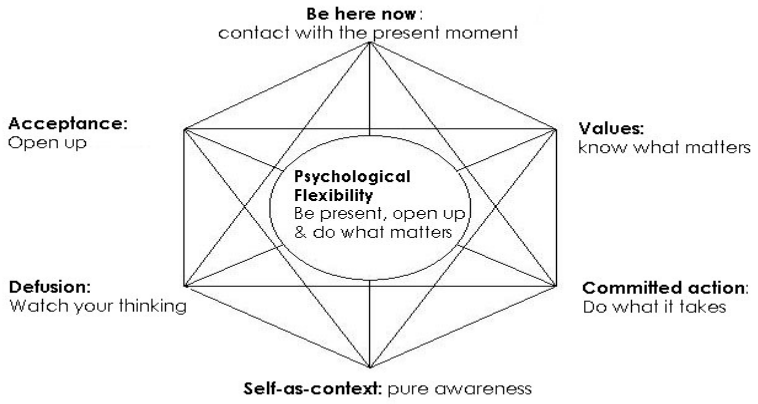


Fig. 2. The ACT 'hexaflex' represents the 6 psychological processes ACT aims to develop

Some studies have shed light on the order in which ACT-consistent processes would appear to operate. For example Ossman, Wilson, Storaasli and McNeill (2006) conclude that increases in psychological flexibility were associated with increases in value placed on friendships and social relationships. Other studies have explored the cumulative effect of ACT-consistent processes on outcome (e.g. Branstetter-Rost, Cushing & Douleh, 2009). Cocksey (2011) compared ACT processes, finding cognitive fusion to be a far more important predictor of psychopathology than experiential avoidance.

With regards to the ED population, disordered eating-related cognition has been found to be inversely related to psychological flexibility (Masuda, Price, Anderson & Wendell) and Hayes and Pankey (2002) explain why an ACT conceptualisation makes sense with this population. An ACT intervention for ED has been outlined (e.g. Orsillo & Batten, 2002; Wilson & Roberts, 2002) and promising data has been produced by two recent studies (Heffner, Sperry, Eifert & Detweiler, 2002; Juarascio, Forman & Herbert, 2010).

To summarise, ACT is underpinned by Relational Frame Theory, which recognises the importance of language in determining how individuals relate emotionally to the future and to others in their thoughts and words through the use of evaluative and temporal frames. ACT seeks to assist the client in developing the six underlying processes the model associates with mental health: contact with the present

moment, cognitive defusion, acceptance, personal values clarification, values based action and taking a perspective of self as context.

The intervention that the current study seeks to evaluate directly targets only one aspect of the ACT model, i.e. values clarification. However, it is considered to be consistent with the theory that underpins ACT and the processes that are targeted in ACT for the following reasons. The intervention involves the development and practice of values based self affirmations so the use of language is heavily implicated. Statements begin with the word 'I' and describe an action in the present tense that is relevant to living in accordance with a particular personal value. The client's attention is therefore directed to the present moment. The practice of using values based self affirmations involves choosing language, thoughts and memories that give rise to emotional states. This choosing of internal experiences could conceivably help the individual to gain a meta-perspective on their internal experiences, which is in line with the aim of cognitive defusion. The client participating in this intervention is not required to accept unpleasant internal experiences. However she is encouraged to pursue desired internal experiences which involves a change in focus from avoiding aversive ones. This could possibly impact indirectly upon acceptance. Clarification of personal values is a central part of the intervention. Through drawing upon memories and using visual imagery the aim is for the client to experience congruence between their values and behaviours. Whilst the intervention does not explicitly address the action individuals might take in line with their personal values, the well established motivation of individuals to avoid cognitive dissonance (Festinger, 1957) might conceivably encourage them to act in a way that is consistent with their language, thoughts and emotions. The repetition of values based self affirmations and recall of congruent memories might be expected to afford the client with a greater and more stable sense of self in the face of changes within the environment which is consistent with 'self as context' or the 'observing self'.

2.6 Other Considerations

2.61 Researcher Positioning

My professional background consists of ten years experience of working in the field of mental health prior to commencing clinical training. One of these years was spent working as an Assistant Psychologist within the Community Eating Disorders Service (CEDS) in which the present research was carried out.

Through the discovery of various self help resources I developed a personal interest in the definition of personal values and the use of positive self affirmations around 6 years ago. It has been my own direct experience that developing an awareness of and become clearer about my own personal values along with

using positive self-affirmations brought about positive changes in relation to thoughts, feelings, emotions, behaviours and relationships.

Harris (2009a) recommends that therapists reflect on the values that guide their work. Given that one of the study's aims was to provide an intervention that involved facilitating participants' clarification of their own personal values it seems pertinent to state that for me personally these values would include as a priority honesty, equality and acceptance of difference.

In my own clinical practice I have been struck by the difference that a simple flashcard with an alternative belief can make to clients engaged in Cognitive Behavioural Therapy. I have also observed the surprisingly powerful impact that the exploration of visual imagery derived from a client's dreams, or a single session spent on highlighting a client's existing positive personal characteristics can have. In my experience of working with clients with ED and psychological problems in general, I have observed that clients generally appear to move towards what they want rather than away from what they do not want.

Based on my personal and professional experience I developed an idea for a research study which I presented to my peers and research tutors. Their feedback, along with the input I received from my research supervisors regarding theoretical frameworks, processes by which the intervention I designed might work, and identifying a suitable client group, led to the evolution of the study into its current form.

2.62 The Dual Role of the Therapist and Researcher

The dual role of the therapist and researcher may raise questions regarding both therapist and researcher bias. However, as this was a new intervention of unknown efficacy with the client group in question there were no reasons for the therapist to feel under any pressure to demonstrate a positive therapeutic outcome. Furthermore the researcher did not have a vested interest in proving the efficacy of this intervention as power and money concerns were not at stake. The research was carried out as part of the therapist/researcher's training with the understanding that the research would be evaluated according to the way in which it was carried out rather than in terms of the findings it achieved.

Chenail and Maione (1997) acknowledge the pros and cons of the 'therapist-as-researcher' in clinical research. They recognise that the therapist/researcher's previous constructions of the subject matter can provide both a resource and a confounding variable. One advantage to the dual role is that the clinical researcher overcomes a potential barrier to carrying out research in that they are better able to gain access to the field of study. A disadvantage, however, is that the researcher may inadvertently narrow the focus of the study by confronting the phenomenon of interest with preconceived notions.

2.63 Rationale and Clinical Relevance

This study seeks to investigate the effectiveness of using a new brief psychological intervention for clients who have BN, within the context of an increasing interest in stepped care and the poor prognosis for this client group. This intervention was developed based on the evidence base regarding the benefits of values-based self-affirmation, visual imagery and psychological interventions that address aspects of the 'self', and their relevance to BN which has previously been discussed. It is also anticipated that this intervention might facilitate engagement in treatment and support the success of further psychological interventions; however, it is beyond the scope of this study to explore this.

Receiving a positive intervention which could be of benefit to anyone, may normalise psychological interventions for clients, thereby reducing the still prevalent stigma associated with seeking psychological help. It may gently acclimatise the client to a therapeutic relationship and facilitate the development of rapport with the therapist. Rashid and Ostermann (2009) make the point that an exclusive focus on a client's difficulties may contribute to negative labelling of the client and asymmetries in the balance of power within the therapeutic relationship. This may be particularly detrimental to psychological therapy within the field of eating disorders, given the semantics of power that have been observed to dominate constructs elicited from this client group (Ugazio, 2013). Highlighting positive existing aspects of the client might increase hope for the future, thereby fuelling motivation to engage in therapy, and increasing the client's sense of self-efficacy. This could increase the degree to which they actively participate in therapy.

Beginning with a simple technique which demonstrates that it is possible to feel slightly better may increase clients' openness and ability to attend to threatening information. Psychological interventions in ED often begin with psycho-education as a means of increasing the client's motivation to address their eating disordered behaviour. However, in the context of BN with potential health implications this can also leave the self-reproachful individual with further reasons for self-recrimination for the damage they have already caused to their bodies. Psychological therapy typically involves requests from the therapist for the client to recall painful memories from their childhood, and challenges to the beliefs the client holds about themselves, others and the world in general. Beginning with a positive psychology intervention may lay a foundation for this difficult work.

2.7 Questions and Propositions

2.71 Questions:

1) Is a brief intervention which seeks to help women with BN develop and practise values-based self affirmations effective in reducing cognitions associated with ED, reducing behaviours associated with BN and enhancing attitude towards change?
2) Which psychological processes appear to be affected by the intervention and best account for the impact of the intervention upon symptoms – processes consistent with Personal Construct Psychotherapy (PCP) or Acceptance and Commitment Therapy (ACT)?
3) What is the experience and acceptability of this intervention for participants?

2.72 Propositions:

The development and practice of individually tailored values-based self-affirmations will:

1) Reduce cognitions associated with ED as measured by the EDI-III and behaviours associated with BN as measured by self-report
2) Enhance attitude towards change as measured by the Attitude Towards Change Likert Scales
3) Increase self-esteem as measured by the Rosenberg Self-Esteem Scale and Low Self-Esteem Subscale of the EDI-III
4) Move participants closer to the desired pole of their personal constructs (personal values) i.e. their 'ideal' self as measured by SELF Repertory Grids
5) Result in effects that may be explained by theory underpinning PCP as measured by tightness of construing and the percentage variance accounted for by the first component from principal components analysis across constructs.
6) Increase self-compassion as measured by the Self-Compassion Scale: Short Form
7) Improve body image as measured by the Body Image - Acceptance and Action Questionnaire
8) Increase psychological flexibility as measured by the Acceptance and Action Questionnaire
9) Reduce cognitive fusion as measured by the Cognitive Fusion Questionnaire
10) Result in effects that may be explained by theory underpinning ACT as measured by the Self-Compassion Scale: Short Form, Body Image – Acceptance and Action Questionnaire, Acceptance and Action Questionnaire and Cognitive Fusion Questionnaire.

The above propositions will be examined through the analysis of outcome measures which are listed in the Methodology.

Participants' completion of the Helpful Aspects of Therapy Questionnaire and participation in brief semi-structured interviews will seek to answer the following questions in order to assess the experience and acceptability of the intervention:

- How do participants use self affirmations in practice?
- Is this intervention acceptable to service users? Is there any perceived stigma attached to the use of self affirmations?
- Do participants attribute any benefits to this intervention?
- Do participants attribute any ways in which this intervention is detrimental?
- How do participants perceive the intervention as affecting their mood/behaviour/thoughts/feelings about themselves/personal relationships/coping strategies/achievements?
- Which aspects of the intervention do service users find most/least helpful?
- How might this intervention be improved?

3. METHOD

3.1 Design

The present study uses a multiple case study methodology which comprises mixed methods, with questionnaires and semi-structured interviews providing measurement of process and outcome. A justification for the use of multiple case studies, mixed methods and semi-structured interviews is provided. This is followed by a description of the sample, recruitment process and measures used. The procedure is then reported in terms of research assessment and the intervention provided. Finally the ethical aspects of the study are considered.

3.11 Case Study

Robson (1993) offers the following definition of the term case study:

> "Case study is a strategy for doing research which involves an empirical investigation of a particular contemporary phenomenon within its real life context using multiple sources of evidence". (p. 52)

As this study seeks to trial a new brief psychological intervention a multiple single case studies design was considered to be most appropriate. Single case studies are generally considered suitable for the demonstration of clinical technique and especially in treatment innovation (Baxter & Jacks, 2008). The formal evaluation of new therapeutic approaches is usually preceded by small-scale research which aims to develop the technique's theory and practice. This process of clinical development is described in Salkovskis's (1995) "hour-glass" model. Initial ideas regarding technique are tested first through single-case studies. 'This approach is valuable for health science research to develop theory, evaluate programs, and develop interventions because of its flexibility and rigor' (Baxter & Jack, 2008, p544). External validity is not considered to be an inherent problem in designs of this type (Kazdin, 1994a) and they may afford a good degree of generalisability when replicated across randomly sampled cases. Elliott (2002) also supports the value of single case study research.

Taking a case study approach appeared to be appropriate to the research questions posed by this study for a number of reasons. Firstly the study seeks to answer "how" a new brief psychological intervention works and is experienced by recipients. The explanatory nature of this question requires that operational links may be traced over time. Explanatory research benefits particularly from the flexibility of a case study method (Robson, 1993). Case studies may be exploratory, descriptive and explanatory (Yin, 1981, cited in Robson, 1993) and the present study includes elements of all of these. Secondly, the focus of the study concerns a contemporary phenomenon and a complicated real-life context interacting with the complex psychological processes within this (Smith, 1995). The case study method allows the researcher to directly observe the events being studied, interview participants, utilise a variety of evidence and 'retain the holistic and meaningful characteristics of real-life events '(Yin, 2009). This enables the description of an intervention, the illustration of specific topics, the explanation of complex presumed causal links in which multiple variables may interact and the generation of new theories to explain such links (Yin, 2009).

The present case study is informed by the theory of Yin (2009), whose approach to case study is based upon a constructivist paradigm, according to which meaning is subjectively created. Truth is, therefore, relative and dependent upon one's perspective, and reality is considered to be a social construction (Searle, 1995). Some notion of objectivity is not rejected outright, however, and 'Pluralism, not relativism, is stressed with focus on the circular dynamic tension of subject and object' (Miller & Crabtree, 1999, p.10).

Whether or not the case study offers a 'scientific' approach and methodology has been much debated (Bromley, 1986; Campbell & Stanley, 1963; Nisbett & Watt, 1980). Flyvbjerg (2006) addresses some of the most common misunderstandings regarding case study research. He argues that context dependent knowledge is no less valuable than context independent knowledge and highlights the value of the case study in discovery, learning and innovation. Flyvbjerg asserts that the case study is ideal for assessing generalisability using one of the most rigorous tests to which a scientific proposition can be subjected i.e. falsification. The point is argued that case studies have a valuable role not only in generating hypotheses but also in hypothesis testing and theory building. Atypical or extreme cases may be selected which activate more basic mechanisms in the situation studied and reveal more information. Furthermore, selecting a critical case may be a highly efficient way of researching a particular problem. Flyvbjerg refutes the suggestion that case study research is biased towards verification and argues that, instead, the case study typically compels the researcher to revise preconceived views and that there is very often a struggle to find a satisfactory explanation for the complexity observed. Researcher subjectivity is more likely to be exposed and corrected due to the researcher's proximity to participants and participants' ability to 'talk back'. Finally, Flyvbjerg makes the point that the challenge to neatly summarise findings is often a consequence of the rich ambiguity of the material which may be reframed in terms of it being highly informative.

It is generally acknowledged that the case study offers a discrete and well developed methodology of its own (Cook & Campbell, 1979). However, Robson (1993) stresses the importance of the case study researcher providing enough information and rationale for the methodology if the information and perspectives gained are to be credible and of practical value in the 'real world'. Yin (2009) states that the five following components of a research design are particularly important:

1. A study's questions;
2. Its propositions, if any;
3. Its unit(s) of analysis;
4. The logic linking the data to the propositions; and
5. The criteria for interpreting the findings.

The case study's propositions may be derived from existing literature, theory and/or clinical experience. Propositions serve an important purpose in placing limits on the scope of a study and form the foundation for a conceptual framework (Miles & Huberman, 1994). Propositions guide the data collection and

discussion. Linking data to propositions leads to a focussed analysis which is clearly related to the research questions.

3.12 Mixed Methods

The present study uses a mixed methods multiple-case literal replication design. The case is an analysis of process, with the same design replicated and similar findings predicted, across cases. A multiple baseline design across participants (Hersen & Barlow, 1984) was selected as it would neither be possible nor ethical to remove an intervention that was proving helpful to participants. With this design appropriate baseline measures are taken and the participant acts as her own control.

Given that this is a trial of a new intervention, it was considered important to develop an understanding of both whether, and how, such an intervention might impact upon the symptoms of an eating disorder. Therefore, a mixed methods design was utilised to explore the processes and mechanisms through which the intervention achieved its effects. Multiple sources of evidence were used by the researcher in order to gain as wide and comprehensive a view of contributory factors and issues as possible. Multiple data sources enhance the credibility (Yin, 2003) as the multiple perspectives afforded by the triangulation of data types enhances data quality based on principles of idea convergence and the confirmation of findings (Knafl & Breitmayer, 1989). Repertory grids were designed to capture change in psychological processes that have been determined as important in the development, maintenance and treatment of eating disorders . Questionnaires were used, i) in order to assess outcome in terms of symptoms of eating disorder, ii) to capture change in psychological processes that have been determined as important in the development, maintenance and treatment of eating disorders, iii) to collect demographic information, iv) as part of the intervention, and v) to gain qualitative information regarding participants' experiences of the intervention. A brief semi-structured interview was also designed to gauge participants' experience of, and satisfaction with, the intervention. This was to provide a further qualitative measure of outcome. As Roth & Fonagy (2005) assert , regardless of how effective a treatment may be, if users experience it as aversive, attrition from treatment will result in it having minimal effectiveness.

A qualitative strand to the case study was considered important as qualitative research considers the participants within context, the stance and role of the researcher and their own subjectivity (Kelman, 1967; Parker, 1989; Rosenthal, 1966; Shotter, 1975; Woolgar, 1988). Qualitative research offers an antidote to the 'fantasy of prediction and control' (Bannister, Burman, Parker, Taylor & Tindall, 1994)

and acknowledges that research contributes to understanding human behaviour better though never completely and definitively (Robson, 1993).

3.13 Semi-structured Interviews

Canell & Kahn's (1968) definition of the research interview is cited by Cohen and Manion (1994, p271):

> "a two person conversation initiated by the interviewer for the specific purpose of obtaining research-relevant information, and focussed by him on content specified by research objectives of systematic description, prediction or explanation".

Interviews enabled participants to provide their own perspectives on whether clinically meaningful changes had occurred for them and what they believed was important in bringing about these changes. Interviews also enabled the consideration of any aspects that could be improved in the intervention's implementation. In contrast to a written survey, interviews allowed the potential for participants to elaborate and expand upon points they raised. The interviewer, in direct personal interaction with the interviewees could immediately follow up and clarify points arising in order to maximize the elicitation of as much information relevant to the enquiry as possible. Bannister et al. (1994) lists four more possibilities that research interviews afford; the acknowledgement of participants' subjectivity, the difficulty inherent in knowing what can be known, the power imbalance between researcher and participant (Figuera & Lopez, 1991; Reason & Rowan, 1981), the exploration of meaning making and scope to capture contradictory and inconsistent views.

It must be acknowledged that research interviews, however well designed can impose the researcher's own constructs on the issue the researcher seeks to explore (Kelly, 1955). Therefore, it is imperative for the researcher to state their own position in relation to the field of enquiry (Bannister, 1977). Information gained from research interviews is also more prone to subjectivity, bias and interviewer/interviewee interaction effects (Borg, 1963, cited by Cohen & Manion, 1994). For these reasons interviews were carried out by a Clinical Psychologist within the service, rather than the therapist-researcher in order to reduce the potential for social desirability responses in interviews, (Krefting, 1991). The Clinical Psychologist who carried out the interviews was not the clinician who had assessed either participant. The dependability of the interview data was promoted by i) member checking of interview transcripts and

ii) having another researcher independently code a set of data before meeting with the lead investigator to come to a consensus on the codes.

Semi-structured interviews were used for the purpose of this study. A list of the questions can be found in Appendix 1. Whilst reducing the degree to which validity could be maximised (Cohen & Manion, 1994) this method avoids the costs to interpersonal interaction between interviewer and interviewee that a closed, structured interview format entails (Kitwood, 1977). In order to counteract the possibility of reduced levels of validity clear areas of questioning were formulated, based upon previous research, personal and professional experience. A pilot interview was also carried out with a non-bulimic young woman, a medical student known to the author, and the interview schedule amended accordingly.

Interview transcripts were transcribed 'verbatim', as recommended by Braun and Clarke (2006). The transcribed interview data was analysed using a method of thematic analysis. Thematic analysis 'provides a flexible and useful research tool, which can potentially provide a rich and detailed, yet complex, account of data' (Braun & Clarke, 2006, p 5). Braun & Clarke (2006, p.5) provide a 'recipe' 'for people to undertake thematic analysis in a way that is theoretically and methodologically sound'.

Both deductive and inductive approaches were used for the analysis of data. This approach is similar to the second of three approaches to qualitative content analysis described by Hsieh and Shannon (2005), i.e. 'directed content analysis'. In this approach initial coding is based upon deductive reasoning, drawing upon existing relevant research. Then, during further data analysis, by a process of inductive reasoning, the researcher immerses themselves in the data and sub-themes emerge from the data through the researcher's careful examination and constant comparison (Zhang & Wildemuth, 2009).

This approach was taken due to there being an abundance of questions posed by previous research alongside a relative lack of answers to these questions. Initial themes were based upon questions that had been posed by previous research. Generating initial themes from previous studies has been considered very useful for qualitative research, especially at the inception of data analysis (Berg, 2001). Analysis of the data items that had been coded under these initial themes took an inductive approach. This is in accordance with Lauri and Kyngas's (2005) recommendation in the context of there being little former knowledge about a phenomenon.

The entire data set was read and re-read. It was then systematically worked through, giving full and equal attention to each data item, i.e. interview transcript. Each data item was read in turn. Data items within each transcript were coded manually across the transcript according to which interview question (theme)

they appeared to be answering. Data items coded for each theme were then examined further and using a method of open coding sub-themes were produced manually from the data. Sub-themes were identified for each participant separately before these were cross-referenced in order to identify commonalities and differences in the responses provided by the two participants. Finally data extracts were taken from data items in order to provide examples that comprised the various sub-themes.

3.14 Sample Size

Whilst 2 or 3 cases are required for a single case studies replication design, to factor in the possibility of drop-out, (found to be particularly high in the treatment of BN (Blouin et al., 1995; Fassino et al., 2003; Steel et al., 2000), it was decided to offer the intervention to 6 participants.

3.2 Participants

Due to the replication design of the study similar cases were selected in order to predict similar results. It was envisaged that 3-6 women with a minimum age of 18 who had a diagnosis of BN defined as meeting DSM-IV (APA, 2000) criteria for BN would be recruited on the basis of these specific gender, age and diagnosis characteristics without random selection[1].

Inclusion criteria were that participants were most typical of the adult clients with BN referred for treatment within the community, i.e. female and aged 18 plus. It was also a requirement that they had recently been assessed and were on the waiting list for treatment within the adult Hertfordshire Community Eating Disorders Service.

Minimal exclusion criteria, e.g. related to co-morbid diagnoses were stipulated in order to accurately reflect the severity, complexity and diversity often seen in clinical settings and, thereby, increase the external validity of the study. Exclusion criteria included a primary diagnosis of an eating disorder other than BN, male gender, less than 18 years old and if they had been assessed more than 3 weeks previously and were on the waiting list for treatment within Hertfordshire Community Eating Disorders Service (as their participation might delay their treatment). There is great diversity within this client group. In order to retain as much ecological validity as possible and increase the generalisability of the findings, much of this diversity was accommodated. Participants were not excluded on the basis of co-morbidity. However,

[1] This study was conducted prior to the release of DSM-5 criteria

paradoxically, also in order to increase the generalisability of findings, it seemed important to define some exclusion criteria. The gender of participants who were included is considered more typical of clients seeking treatment for BN within a Community Eating Disorders Service.

Around 20 clients referred to the Community Eating Disorders Service (CEDS) and on the waiting list for assessment were identified as being potentially suitable for inclusion within the study. Following assessment, the majority of these were no longer considered suitable either due to not attending the assessment or receiving a diagnosis other than BN. Six clients were considered by their assessing clinician as being suitable participants and agreed to being contacted by the researcher. Of these, one avoided contact and another one said she had changed her mind about participating. Four clients attended the first research appointment at which baseline measures were completed. Two of these then dropped out before commencing the intervention. Demographic and background information from the EDI-III for the two participants is presented below.

Table 1: Demographic and background information for participants

Demographic variables	**Participant 1**	**Participant 2**
Ethnicity	White-Asian	British
Religion	Christian	Catholic/Buddhist
Age group	Early thirties	Late thirties
Marital status	Married with children	Married
Education	GCSE	College
Occupation	Voluntary and cleaning	Hairdressing
Current BMI	25.6	19.8
Highest adult BMI	36.8	21.1
Lowest adult BMI	22.7	17.4
Age eating problems began	'Always'	Unable to recall
Ideal BMI	21.8	17.4
Familiarity with self affirmations	Unfamiliar	Unfamiliar

3.21 Recruitment

The researcher-therapist attended a CEDS team meeting in order to present the research proposal to team clinicians, provide information regarding the study procedure and eligibility criteria, answer questions and provide participant information.

Clients who had been referred to CEDS and allocated to assessment slots were viewed with the assistance of the service's Assistant Psychologist who consulted referral information and identified clients who might potentially meet inclusion criteria. Assessing clinicians were then reminded to provide participant information if these clients were considered suitable. Participant information (Appendix 2) included a flowchart (Appendix 3) detailing the schedule of study procedures so that they were informed of what would be required of them should they choose to participate. Potential participants were then allowed time to consider this information. Where participant information was provided, the assessing clinician was then reminded a week later to call potential participants in order to ascertain whether they were interested in participating. If they were in agreement, an initial appointment was arranged at which the lead investigator explained what participation in the study would involve and written consent was sought (Appendix 4). Participants were not paid for their time. Appointment cards and telephone calls were used to remind participants of their appointments.

3.3 Measures

There is a current emphasis in the literature on the need to specify the mechanisms through which psychological interventions impact upon outcome variables at post-intervention and follow-up stages (Llewelyn & Hardy, 2001). Kazdin and Kendall (1998) argue that this is particularly important when developing innovative treatments. Therefore several other outcome measures were used in addition to the EDI-III in order to capture change within psychological processes of relevance to eating disorders; self-esteem, body image, self compassion, cognitive fusion, psychological flexibility, attitude towards change and personal constructs. A Background Information questionnaire was used to collect demographic information in order to ground the sample. The Personal Values Questionnaire was used as part of the psychological intervention and the Helpful Aspects of Therapy questionnaire provides further information regarding participants' experiences of the intervention. All outcome measures, aside from those used during intervention sessions, were completed by participants alone. Participants were asked to place their questionnaires in an envelope rather than handing them over to the therapist-researcher in order to reduce the potential for social desirability responses, (Krefting, 1991). Outcome measures used in this study are listed and described below with reference to their psychometric properties.

3.31 Questionnaires Assessing Psychological Processes

3.311 The Eating Disorder Inventory (EDI-III) (Garner, 2004)

The Eating Disorders Inventory – Third Edition (EDI-III) was used as the primary measure of eating disorder symptoms and outcome. The EDI-III is a self-report questionnaire designed for use with females between the ages of 13 and 53. It measures behavioural and attitudinal dimensions common in anorexia nervosa (AN) and bulimia nervosa (BN). The EDI-III has become a widely used instrument both for the assessment of symptoms in clinical samples and for screening for eating disorders in non-clinical samples. The EDI-III is comprised of 91 items which are rated on a 0-4 point scale. These items can be divided into twelve subscales, three of which are related to eating disorder risk, and nine of which are psychological scales relevant to eating disorder. Eating disorder risk scales include Drive for Thinness, Bulimia and Body Dissatisfaction. Psychological scales include Low Self-Esteem, Personal Alienation, Interpersonal Insecurity, Interpersonal Alienation, Interoceptive Deficits, Emotional Dysregulation, Perfectionism, Asceticism and Maturity Fears. The EDI-III yields the following six composites: Eating Disorder Risk, Ineffectiveness, Interpersonal Problems, Affective Problems, Overcontrol and General Psychological Adjustment. There are also three validity scales: Inconsistency, Infrequency and Negative Impression. Scores for all of the eating disorder risk and psychological scales, composites and validity scales may be interpreted by reference to clinical ranges. The clinical ranges are based on percentile ranges for a U.S. Adult Combined Clinical sample. The Elevated clinical range corresponds to a score within the 67^{th} to 99^{th} percentile. The Typical clinical range corresponds to a score within the 25^{th} to 66^{th} percentile and the Low clinical range to a score within the 1^{st} to 24^{th} percentile. In addition to this, respondents are asked to provide information related to their weight history, age, gender and diagnostic status. Garner (2004) reports good reliability and validity for the EDI-III. Eating Disorder Risk composite reliability is reported as ranging from .90 to .97 across diagnostic groups and Eating Disorder Risk scales reliability as in the high .80s and .90s across the normative groups. All but one of the composite reliabilities were in the .80s and .90s. The median reliability for the Psychological scales for the international adult clinical group was found to be .74. The test-retest stability coefficients for the Eating Disorder Risk composite, General Psychological Maladjustment composite, Eating Disorder Risk scales and Psychological scales have been reported as .98, .97, .95 and .93 respectively.

3.312 Attitude Towards Change Likert Scales

Three Likert scales, each rated 0-10, capturing attitude to change were also administered over the course of participants' involvement in the study. These were adapted from Rollnick (1996), in 'Workbook: Motivational Enhancement Therapy' by Schmidt and Treasure.

3.313 Rosenberg Self-Esteem Scale (RSES; Rosenberg, 1965)

The RSES is a reliable, valid, and commonly used 10-item scale (Blascovich & Tomaka, 1991). Participants are asked to respond using a four-point scale (1 = strongly disagree; 4 = strongly agree) to questions such as "On the whole, I am satisfied with myself." Higher RSES scores indicate higher self-esteem. The RSES has been found to have internal consistency scores of .77 and .88 (Dobson, Goudy, Keith & Powers, 1979; Fleming & Courtney, 1984). Test-reliability scores of .82 and .85 have been reported (Fleming & Courtney, 1984; Silber & Tippett, 1965). With regards to validity, the RSES has been correlated .72 with the Lerner Self-Esteem Scale (Savin, Williams & Jaquish, 1981).

3.314 SELF repertory grids (Button, 1993)

The SELF-GRID is described by Button (1993). Button asks participants for five elements from which constructs are elicited. The focus of the SELF-GRID is particularly on self-construing, and therefore a number of different selves as elements to be rated are also included. The six self elements are 'me nowadays', 'me when younger', 'me a year ago', 'me in the near future', 'me in far future' and 'me as I would ideally like to be'. Button advises that when asking participants about their 'younger' self they are instructed to think of a particular time in their life. When they are asked about their future self they are asked how they think they will be. Participants are invited to add one or two other important people in their life.

Participants are informed that the investigator will take one construct at a time and ask them to indicate how much of the time they think the construct applies to each of the elements in turn. It is made clear that there are no right or wrong answers and it is their impression that is of interest. If they do not know or if the construct does not apply, they may say so. An 8 point scale is used which ranges from always to never. The participant responds verbally and the investigator records the response in a grid. The scale points are: always (7), almost all of the time (6), most of the time (5), often (4), sometimes (3), only occasionally (2), rarely (1) and never (0).

The data may be analysed in terms of the interrelationship between constructs, the interrelationship between elements and the interrelationship between constructs and elements. The SELF-GRID can be used to explore the participant's self-esteem by comparing the construing of 'me nowadays' with 'ideal self' (Button, 1993). The value of each construct for the participant is identified as either 'positive' (where ideal self is rated at least most of the time on the construct), 'negative' (where ideal self is rated no more than only occasionally), and 'uncertain' (where ideal self is rated as sometimes or often). The investigator plots the ratings of 'me nowadays' and 'ideal self' in terms of these constructs. Smaller discrepancies of up to two points can be considered as perceived strengths. 'Uncertain' constructs might represent dilemmas. An index of self-esteem may be calculated by taking the mean discrepancy between ratings of self and ideal self. Within a clinical population this has been found to be around 2.3 points, compared to 1.2 within a non-clinical population.

Repertory grid data was also explored with Principal Components Analysis using Idiogrid computer software. Principal Components Analysis enables each construct to be correlated with every other and each element to be correlated with every other. Correlations measure the extent to which a linear relationship exists between the two variables. Ranging from +1 to -1, high positive correlations reflect similar meanings, high negative correlations reflect opposite meanings and those near zero are relatively unrelated. Principal Components Analyses may be presented as a two-dimensional diagram. One axis represents the first component, i.e. the construct that accounts for most of the variability in the grid, relative to other constructs. The other axis represents the second component, i.e. the construct that accounts for most of the variability in the grid, relative to other constructs and excluding component one. Elements are plotted as points in relation to the two axes. Button (1993) suggests that Principal Components Analysis may be useful in highlighting the 'broad contours of a person's construing, but they should be treated with caution' as they represent only a partial description of the data.

Whereas Button elicits constructs in the SELF grid by asking participants to compare and contrast the initial five elements, in the present study, nine constructs were derived from the nine domains of the Personal Values Questionnaire. For this reason, all constructs were identified as 'positive'. Elements included seven versions of 'self' that were provided; 'me as I am now', 'me when I was young', 'me a year ago', 'me in 1 years time', 'me in 5 years time', 'me as I would ideally like to be' and 'me as I ought to be'; and three significant/important other people in the client's life who were provided by the client, e.g. 'husband', 'mother', 'neighbour'.

3.315 The Self-Compassion Scale: Short Form (SCS-SF) (Raes, Pommier, Neff & Van Gucht, 2011)

The Self-Compassion Scale: Short Form is a 12-item version of the original 26-item scale. The scale has six subscales; Self-Kindness, Self Judgement, Common Humanity, Isolation, Mindfulness and Over-Identification, each of which is comprised of two items. Subscale scores are computed by calculating the mean of subscale item responses. Raes et al. (2011) do not recommend using the short form if there is an interest in looking at the subscale score, as they are less reliable with the short form. The total score is calculated by reverse scoring the negative subscale items; Self Judgement, Isolation, and Over-Identification; and then computing a total mean. The short scale has a near perfect correlation with the long scale when examining total scores (Raes et al., 2011). The long scale has been reported to have good construct validity, internal consistency of .92 and a test-retest reliability of .93 (Neff, 2003b).

3.316 The Acceptance and Action Questionnaire (AAQ II; Bond, Hayes, Baer, Carpenter, Guenole, Orcutt, Waltz & Zettle, in press)

The AAQ-II is a one-factor measure of psychological inflexibility, which includes experiential avoidance. Respondents are asked to rate the degree to which each statement applies to them using a 7-point Likert scale (1 = Never True; 7 = Always True). The scale is scored by summing the seven items to give a total score ranging from 7 to 49. Higher scores indicate greater levels of psychological inflexibility and experiential avoidance.

The AAQ-II is used rather than the AAQ-I (Hayes et al., 2004) as its psychometric properties have been shown to be stronger and more stable across groups (Bond et al., 2011). The measure has been found to have adequate internal validity, with Cronbach's alphas ranging between .78 and .88 (Bond et al., in press). Its 3- and 12-month test-retest reliability has been found to be .81 and .79 (Bond et al., in press). Bond et al also found the AAQ-II to have good concurrent and predictive validity, i.e. it had good convergent, discriminant and incremental validity.

3.317 The Body Image – Acceptance and Action Questionnaire (BI-AAQ) (Sandoz & Wilson, 2006)

The BI-AAQ is a 29 item self-report scale that has been designed to measure the extent to which an individual exhibits an accepting posture toward negative thoughts and feelings about his or her body

shape and/or weight. Respondents are asked to rate items on a 7-point scale that ranges from 1 (Never True) to 7 (Always True). Higher scores indicate more acceptance. Initial psychometric data is promising. In terms of its reliability, the scale is internally consistent with Cronbach's alpha = .93. Construct validity is also good. Scores are significantly negatively correlated with well-established measures of theoretically related constructs such as body dissatisfaction, bulimia, general eating pathology, and general distress. The BI-AAQ is also significantly positively correlated with well-established measures of theoretically related constructs such as mindfulness skills, and general acceptance. Scores also predict performance on an Implicit Relational Assessment Procedure with body- and self-related stimuli.

3.318 The Cognitive Fusion Questionnaire (CFQ; Dempster et al., n.d.; Gillanders, 2009)

Cognitive fusion was measured using the CFQ. The CFQ is a self-report questionnaire that aims to address a broad range of aspects of cognitive fusion. Respondents are asked to rate the degree to which each statement applies to them using a 7-point Likert scale (1 = Never True; 7 = Always True). Once the relevant items have been reverse scored the scale is scored by summing the 28 items to give a total score ranging from 28 to 189. Higher scores reflect greater levels of cognitive fusion.

Dempster et al., (n.d.) have found the CFQ to have adequate convergent validity (with coefficients of .67 and .79), and internal consistency (with an alpha coefficient of .85).

3.32 Additional Questionnaires

3.321 Background Information questionnaire

At the beginning of the study, each participant was asked to complete a brief background information questionnaire which had been developed for this study. This form was used to collect data relating to age, gender, ethnicity, sexual orientation, relationship status, religion, education level, occupation and familiarity with the concept of self-affirmation. This served the purpose of situating the sample (Elliott, Fischer & Rennie, 1999) and allowed assessment of the degree to which findings might transfer across contexts.

3.322 The Personal Values Questionnaire (Blackledge & Ciarrochi, 2006)

The Personal Values Questionnaire assesses several values domains for the function (appetitive control, social compliance, or avoidance) of values-relevant behaviour in that domain, level of importance of that domain, recent commitment to, or success in, valued living in that domain, and desire for more value-consistent behavior within that domain. There are nine values domains; Family Relationships, Friendships/Social Relationships, Couples/Romantic Relationships, Work/Career, Education-Schooling/Personal Growth and Development, Recreation/Leisure/Sport, Spirituality/Religion, Community/Citizenship and Health/Physical Well-Being. Within each domain, personal values are recorded and ratings are then indicated using a five point scale.

3.323 The Helpful Aspects of Therapy questionnaire (Llewelyn, 1988)

The Helpful Aspects of Therapy questionnaire asks the participant to identify the single most helpful or important event that occurred during a therapy session, what made this event helpful/important and what the participant got out of this. The participant is asked to rate the helpfulness of this event on a 9 point scale which ranges from 1 'extremely hindering' to 9 'extremely helpful'. The participant is asked to state where in the session this event occurred and how long the event lasted. The participant is then asked whether anything else helpful happened during the session, to describe the event and rate its helpfulness on a four point scale from 6 'slightly helpful' to 9 'extremely helpful'. Finally the participant is asked whether anything hindering happened during the session, to describe the event and rate the degree to which it was hindering on a four point scale from 1 'extremely hindering' to 4 'slightly hindering'. Participants did not report any hindering events. Helpful events, reasons reported for the helpfulness of these events and associated ratings were, therefore, presented by participant, intervention appointment and in the order that they were raised.

Copies of the measures used in this study are presented in Appendices 5 to 14.

3.33 Managing missing values

Total scores and subscale scores are calculated and reported, or not as the case may be, according to the instructions provided by individual questionnaire authors. For example, in the case of the EDI-III, where

only one item is omitted, the scale score may be prorated based on the mean for completed items. Scale scores for scales on which more than one item has been omitted should not be computed and composite scores should not be calculated if any of the scales that comprise the composite are invalid.

3.34 Calculating Reliable Change Index

The Reliable Change Index is a means of determining the efficacy of treatment and whether clinically significant change has occurred (Jacobson & Truax, 1991) i.e. the degree to which change from pre- to post-test scores can be said to be reliable. The Reliable Change Index takes into account the variability of outcome within external norms and the reliability of the measurement device in order to rule out measurement error and determine the size of the treatment effect.

The Reliable Change Index may be calculated by subtracting the individual pre-test score from the individual post-test score and dividing this by the standard error of measurement of a difference. The standard error of measurement equates to the standard deviation of pre-test scores multiplied by the square root of 2, multiplied by the square root of (1 minus the test-retest reliability coefficient of the measurement device). Upper and lower limits of a raw score so that they contain the person's true score within a 95% confidence level may be defined by adding and subtracting the standard error of measurement multiplied by 2.

In order to calculate the Reliable Change Index, the mean of the Baseline and Pre-Treatment scores was compared with the mean of the Post-Treatment and Follow-Up scores. This data, along with the test-retest reliability coefficient of the particular measure, subscale or composite and the standard deviation of the pre-treatment score from a normative sample, was entered into the 'Reliable Change Index Generator' computer software programme. This software indicated whether reliable change from pre- to post-test had occurred at a 68% level of confidence (1 standard deviation), a 95% level of confidence (1.96 standard deviations) or a 99% level of confidence (2.58 standard deviations) and whether this was in the direction of improvement or deterioration.

Where possible the Reliable Change Index was calculated for outcome measures, as has been recommended regarding research exploring the efficacy of treatment for BN, (e.g. Openshaw, Waller & Sperlinger, 2004). The Reliable Change Index was not calculated for the Cognitive Fusion Questionnaire, Body Image – Acceptance and Action Questionnaire or the Attitude towards Change scales as norms

were not available. Test-retest reliability and standard deviations of pre-treatment scores presented in the EDI-III manual (Garner, 2004) were used to calculate the Reliable Change Index for subscale and composite scores. For the calculation of the Reliable Change Index for the Rosenberg Self Esteem Scale, test-retest reliability (Rosenberg, 1979) was combined with the standard deviations of pre-treatment scores taken from a study which used a sample of participants with BN (Vohs, Voelz, Pettit, Bardone, Katz, Abramson, Heatherton and Joiner, 2001). The standard deviation of pre-treatment mean scores on the Self Compassion Scale: Short Form was taken from a sample of students (Raes, Pommier, Neff & Van Gucht, 2011). Test-retest reliability data was not available for the Self Compassion Scale: Short Form and so this information was derived from studies regarding the psychometric properties of the Self Compassion Scale standard length version (Neff, 2003b) which has been found to have excellent internal consistency with the short version (Raes, Pommier, Neff & Van Gucht, 2011). The Reliable Change Index for the Acceptance and Action Questionnaire –II was calculated based on test-retest reliability and pre-treatment standard deviation data extracted from a sample of participants with problems relating to substance misuse (Bond et al., in press) as a study of its use with participants who had BN could not be located. Please see Appendix 15 for test-retest reliability and pre-treatment score standard deviation data used in the calculation of Reliable Change Indices.

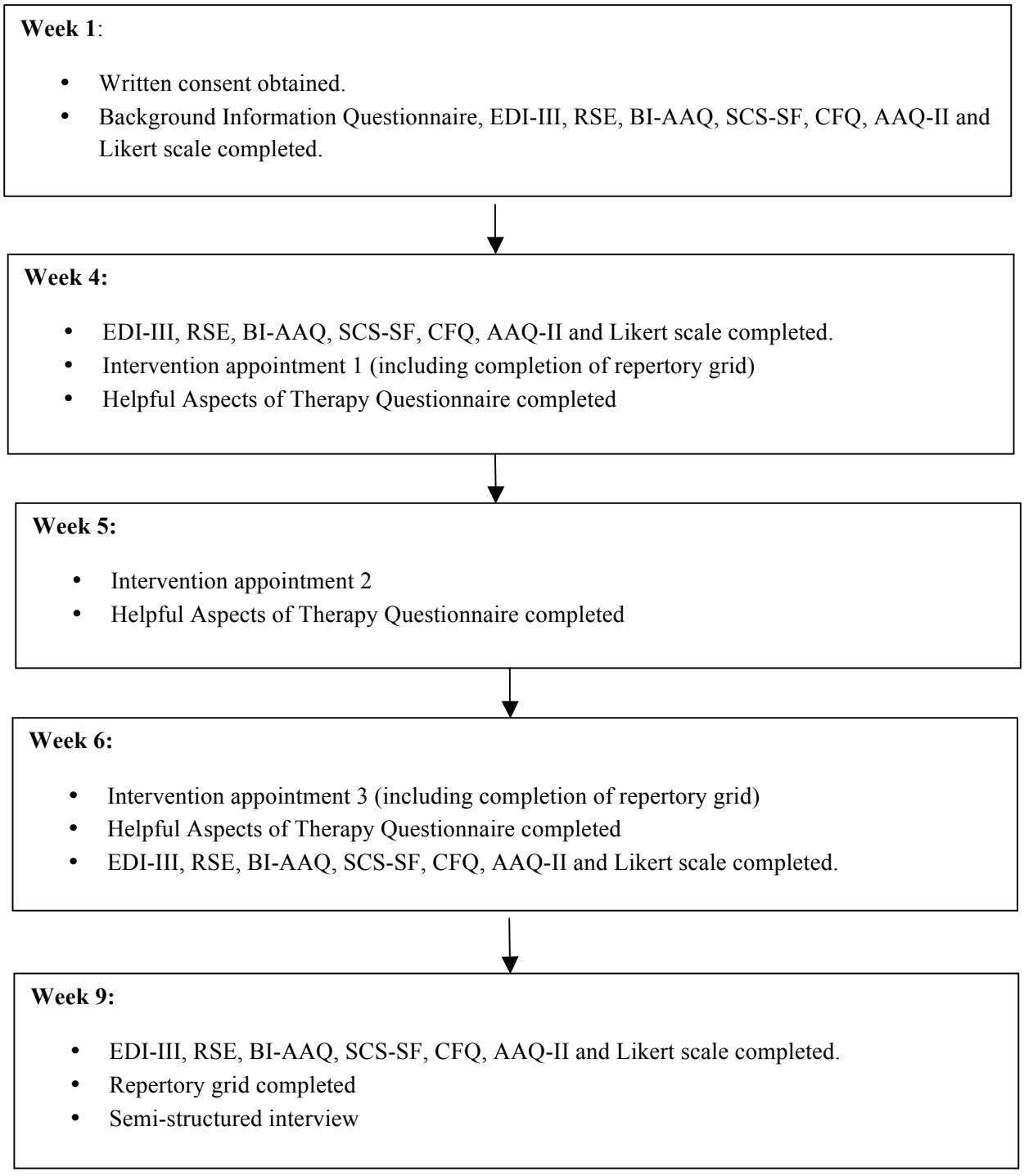
3.35 Behavioural measures of BN

In addition to the above mentioned outcome measures, data concerning participants' frequency of bingeing and purging, restrictive dieting, exercise habits, laxative and diuretic use pre and post-treatment was collected from CEDS. Pre-treatment data was collected by the assessing clinician within CEDS. Post-treatment data was collected by the clinician within CEDS who provided treatment to the participant following their involvement in this study. Pre-treatment data was collected within a month before baseline measures were completed by participants at Week 1 (see procedure below). Post-treatment data was collected within a month following participants' completion of follow-up measures at Week 9.

3.4 Procedure

The flowchart below provides an overview of the research assessment and intervention procedure. The research assessment and the intervention are then described separately and in further detail.

Figure 3: Flowchart of research assessment and intervention procedures



3.41 Research Assessment

Week 1: The details of the study were explained to participants again in person and they were asked to sign the consent form. Participants were asked to complete:

- A Background Information Questionnaire
- The Eating Disorder Inventory-III (EDI-III, Garner, 2004)
- Rosenberg Self-Esteem Scale (Rosenberg, 1965).
- The Body Image – Acceptance and Action Questionnaire (BI-AAQ) (Sandoz & Wilson)
- The Self-Compassion Scale: Short Form (SCS-SF) (Neff et al.)
- The Cognitive Fusion Questionnaire (CFQ; Dempster et al., n.d.; Gillanders, 2009)
- The Acceptance and Action Questionnaire (AAQ-II; Bond et al., 2011)
- A likert scale measuring Attitude Towards Change

Week 4: Participants were asked to spend 45 minutes in a therapy room prior to their appointment completing the above mentioned 6 questionnaires and Likert scale. Following their appointment participants were asked to complete the Helpful Aspects of Therapy questionnaire (Llewelyn, 1988).

Week 5: Following their appointment, participants were asked to complete the Helpful Aspects of Therapy questionnaire.

Week 6: Following their appointment, participants were asked to complete the Helpful Aspects of Therapy questionnaire as well as the above mentioned 6 questionnaires and Likert scale.

Week 9: Participants were asked to complete the above mentioned 6 questionnaires and Likert scale. Repertory grid ratings were completed. Participants were asked to participate in a brief semi-structured interview which was carried out by a Clinical Psychologist within CEDS. Participants' consent for the audio-taping of this interview was obtained. Participants were informed that the interview would ask about their experience of the intervention they had received. The interviews lasted between 30 and 60 minutes. Debriefing information was provided (Appendix 16).

3.42 Intervention

The intervention followed a manualised treatment protocol (Appendix 17) written by the author. Forms used in the intervention are presented in Appendices 18 and 19. The intervention was piloted with a non-bulimic young woman, a medical student known to the author, who provided feedback regarding adjustments that could be made to the layout of outcome measures and the way in which the intervention was carried out, along with her own emotional experience of participating.

Three weekly appointments were offered, as detailed below.

Appointment 1: Together with the therapist, the Personal Values Questionnaire (Blackledge & Ciarrochi, 2006) was completed with each participant in order to identify their most important values in 9 areas. The participant's 9 personal values were entered into a SELF repertory grid (Button, 1993) and the grid was completed with regards to where the participant rated themselves and others currently. The participant's 3 values that would be used to develop affirmations were identified by looking at ratings to questions in the following order until there were 3 top scores:

- 3. Right now, would you like to improve your progress on this value?
- 1. How important is this value to you?
- c. These values are important to me whether or not others agree
- d. Living consistently with these value makes my life more meaningful
- e. I experience fun and enjoyment when I live consistently with these values
- b. I would feel guilty or ashamed if these values were not important to me (reverse scored).

Participants were asked to visualise a time when they had demonstrated each particular value in action. They were then encouraged to expand upon their description of this image by answering various questions such as 'what can you see?', 'can you describe the image/picture/sound/smell to me?', 'where are you in the image?', 'who else is in the image?', 'what are you doing/saying/thinking?', 'what are other people doing/saying/thinking?', 'how do you feel in the image?' and 'What does it mean?'. These are questions suggested to facilitate work with mental imagery (Stopa,2007). The concept of self affirmations, i.e. the definition and way in which they are used, was explained to participants. A hierarchy of affirmations for each of their 3 identified values was constructed and worked through with

the participant until they reached the most emphatic affirmation that was credible for them and true for them now. The participant was then asked to write their 3 affirmations down on cards. Participants were asked to shuffle their cards each morning whilst asking what they needed to know that day. When they finished asking this question the card at the top would be their affirmation for the day. Participants were asked to record this affirmation in their diary, read their affirmation out loud or in their head whilst visualising the affirmation in action and, if practical, to put the affirmation somewhere they would see it during the day. Participants were encouraged to identify a particular part of their morning routine in which they could commit to doing this. Participants were encouraged to repeat this affirmation in their head during the day whenever they remembered.

Appointment 2: Participants were asked about how the last week's task had gone. Participants were encouraged to think of a situation during the last week in which they had demonstrated each value in action. Participants were encouraged to use these examples in their visualisations for the following week. Participants might be asked to consider who else might have noticed them embodying a particular value in action. This encouraged them to take an 'observer' perspective which has been suggested as helpful in the literature on mental imagery (Stopa, 2007). This also helped to 'thicken' their story, which is akin to a narrative therapy technique that is described by White (2005) with regards to 're-authoring conversations'. The therapist's questions provide a scaffold that enable the client to fill in the gaps and thereby 'thicken' the alternative story that has been accessed through the identification of a 'unique outcome', i.e. a situation in which the problem is not present. Participants were supported in problem solving around any difficulties they were experiencing in relation to practising their self affirmations, for example how to fit the practice into their routine, how to perhaps try a different medium, such as listening back to audio recordings of themselves saying their self affirmations using headphones. Participants might be encouraged to consider moving up one rung of their affirmation hierarchy if they wanted to.

Appointment 3: Participants were asked how the last week had gone. Repertory grid ratings were completed. The intervention was reviewed. Participants were instructed to continue their self affirmation practice, in whatever form they chose, if they wished, or to abandon it if they did not. A follow up appointment for 3 weeks' time was arranged.

3.5 Ethical Considerations

Every effort was taken, throughout the research process, to adhere to the ethical guidelines of autonomy, beneficence and justice which have been encouraged of clinical researchers by Orb, Eisenhauer and Wynaden (2000).

3.51 Design

The originally proposed duration of the intervention and length of participants' involvement in the study was reduced following consultation with the field supervisor. If participants' involvement in the study had lasted for as long as 15 weeks it would have breached the service's targets for how long service users should wait between assessment and intervention and participants would have been delayed from gaining access to treatment of known efficacy. The proposed study design ensured that participants were offered treatment as usual by the Community Eating Disorders Service and in accordance with the service's target for how long service users should wait between assessment and intervention.

3.52 Informed Consent

Informed consent was obtained and ensured through the provision of a written information sheet explaining the purpose of the research, what the research involved and its potential risks and benefits. An additional flowchart was provided to make what participation in the research would involve as clear as possible. Service users were made aware that their treatment by CEDS would not be affected whether or not they chose to participate in the research. Either way they would receive treatment as usual by the service. Confidentiality, anonymity, and the right to not answer questions and to withdraw from the study were also explained both in writing and face to face. It was made clear to participants prior to obtaining their written consent that if they were to withdraw from the study, the data already collected from them would be used for the purposes of the research. Written consent was obtained regarding participants' involvement in the research and also regarding the audio-taping of interviews for the purpose of transcription.

3.53 Participants' Wellbeing and Clinical Risk Management

As this was a new form of therapy, there was a possibility that participants could potentially experience some worsening in mood and/or increased psychological stress, or indeed that it might be ineffective. Nevertheless, the overwhelming research evidence highlighted the benefits of positive self affirmations and values-based interventions. Only two studies suggested any possibility of harm to participants. One study in the literature (Wood et al., 2009) found that self affirmation improved the mood of those with high self esteem but worsened the mood of those with low self esteem. However, there were numerous methodological issues with this study which contributed to a significant lack of ecological validity. Furthermore, the present research would use values based rather than attribute based affirmations. For example, the present study might use affirmations such as 'I show people that I care about them' rather than 'I am a caring person'.

Another study by Cresswell et al., (2005) found that the affirmation of personal values buffers neuro-endocrine responses to stress. However, while psychological stress responses were reduced in those with higher dispositional self-resources they were exacerbated in people with low self-resources, i.e. people who had a more negative self concept. This could be due to affirmations highlighting a discrepancy between the person's values and their actions. The present study involved asking participants to use affirmations of values along with visualisations of that value in action. The use of mental imagery alongside established psychological interventions such as Cognitive Behavioural Therapy is well documented (Hackmann et al., 2011). Therefore it was anticipated that recalling memories of having enacted a personal value when practising affirmations would enhance the participant's self concept rather than denigrate it further.

One potential risk that was anticipated in the present study was that participants might identify a personal value that could be expected to reinforce their eating disorder, such as 'self discipline'. If this were to happen, the therapist would acknowledge this and gently steer the participant towards the next highest scoring personal value that might not be anticipated to carry the same risk. Clinical risk was monitored throughout the study. The researcher sought participants' consent to access care records held by CEDS in order to manage clinical risk appropriately (as well as to obtain contact information and record appointments). Any indication of the service user's deterioration or increased risk through questionnaire responses and/or risk related disclosures would need to be communicated to and discussed with the field supervisor in order to manage risk appropriately. Participants were informed prior to their agreement to participate that the intervention would be provided under supervision and that risk related information would be shared with the field supervisor. It was recognised that a potential conflict of interest could

arise if it were indicated that a participant should be advised not to proceed with participating in the study. However, the wellbeing of the participant was considered of paramount importance and regardless of the impact upon the study the participant would be recommended to follow advice to withdraw.

Alongside a minimal likelihood of risk, many potential benefits to participants were identified. Participants would be receiving a psychological intervention when they would otherwise be on the waiting list receiving no treatment. Participants might, in line with one of the case study propositions, experience reduced symptoms of their eating disorder. In line with previous research it might be expected that participants could become more open-minded in their appraisal of otherwise threatening information and experience reductions in the likelihood of self-control failure. It might also be expected that participants would achieve enhanced body image, increased self-compassion/esteem and reduced stress reactivity. All of these benefits could potentially improve the likelihood of subsequent treatment provided by CEDS being successful. At the very least, participants would be more aware of their own personal values which could impact positively on other areas of their life. Participants would also be more familiar with the service setting, the journey to and from the service and the nature of the therapeutic relationship. The experience of being interviewed in relation to their experience of the intervention might increase participants' sense of being active consumers of health care services whose feedback is considered important.

3.54 Confidentiality and Data Protection

With regards to confidentiality, information gathered was held securely and the confidentiality of participants' personal data maintained in accordance with the Data Protection Act and the NHS Code of Confidentiality. On two password-protected USB-2 flash drives and a home laptop computer, one password protected database contained participants' names and their assigned codes. A separate password protected database contained participants' data, identifiable by their assigned codes. Only the lead researcher had access to, and custody of, this data which was shared confidentially only with the project supervisors. Paper documents such as questionnaires and audio recordings of interviews were stored in an appropriate lockable cupboard to which only the lead investigator had access. Participants were informed of this and asked to sign a consent form to state they had read the participant information sheet and understood the information it contained. Interviews were transcribed by an organisation that adhered to NHS confidentiality requirements and digital recordings were deleted according to the proper procedure. With regards to the publication of the research, as direct quotes were used, complete

confidentiality was not guaranteed and participants were made aware of this prior to consenting to participate in the study.

The lead investigator required access to participants' personal addresses and telephone numbers. Participants' verbal consent to have this information shared with the lead investigator was obtained by the assessing clinician. Consent in writing for the lead investigator to have access to participants' medical records was taken at the first appointment if the potential participant agreed to participate in the research. This requirement had been made clear to potential participants in the information that was sent to them prior to their initial appointment. Access to their medical records, i.e. Carenotes, the electronic notes that are kept by the service, was required in order to be aware of and manage client risk appropriately.

3.55 Dissemination of results

Information about the dissemination of the results and publication arrangements was included in the participant information sheet. Participants were asked to verify the accuracy of interview transcripts. Results of the research were disseminated to research participants in order to provide feedback to participants on the outcome of the research towards which they had contributed. However, given that the sample size was small, that participants would all be attending the same service and potentially would come to know each other through receiving group treatment together, i.e. the CBT for Bulimia group, this posed ethical issues in terms of maintaining confidentiality. Careful consideration was given to how information was fed back so as to ensure participants' anonymity. This was managed by providing participants with general feedback, i.e. a summary of the main research findings.

It was anticipated that participants' case histories and direct quotes would be published. Therefore, it was understood that great care would need to be taken when considering the publishing of these case studies to ensure the anonymity of the relevant participants. All personally identifiable data has been anonymised so far as it does not distort the data. Personal details have been described in such a way so as to prevent individuals from being identifiable. Quotations were also considered carefully so that they would not compromise participants' anonymity. The opinions of research supervisors were sought in order to check that this had been carried out successfully.

All of the above risks were weighed against the serious risks that BN poses to participants' mental and physical health and the potential for the research intervention to reduce the symptoms of BN, facilitate engagement and/or improve the efficacy of subsequent interventions.

3.56 Ethics Procedures

Participants for this study were recruited from within the National Health Service. All necessary procedures were followed in order to obtain the ethics approval required. Formal ethical approval for the study was granted by an NHS Research Ethics Committee on 21st March 2013. Please see Appendix 20 for a copy of the REC favourable opinion letter. Local Research and Development approval from Hertfordshire NHS Foundation Trust was also obtained and an honorary contract arranged.

4. RESULTS

4.1 Overview

This chapter begins with a description of the intervention process for each participant. A cross-case analysis is then presented, with each of the ten research propositions examined in turn with regards to the quantitative data. Following this, a summary of the propositions and results is presented. Participants' responses to the Helpful Aspects of Therapy questionnaire are described. Finally, themes and sub-themes identified within participants' interview responses are presented, along with relevant quotes.

4.2 Intervention Process Information

4.21 Participant 1:

At her first appointment, participant 1 told me that she had received a previous intervention from a trainee psychologist within the service which had lasted 12 weeks and finished in August 2012. She said she had found this intervention helpful and attributed this mainly to her own determination. The details of the values that were selected from the Personal Values Questionnaire, their corresponding visualisations, ratings of the degree to which she believed she demonstrated these values and affirmation are presented in Table 2.

Table 2) Values, visualisations, hierarchy ratings and affirmations for Participant 1

Personal Value (Domain)	Visualisation of personal value in action		Hierarchy Rating	Appt 1	Appt 2	Affirmation
	Intervention appointment 1	Intervention appointment 2				Appt 1 (Appt 2)
Loving (Family)	When son was born. At home with family, including aunty. Sitting, eating dinner and talking. Happy. Enjoyed life. Meaning of memory: I can enjoy life.	Letting go of a grudge against husband.	Frequently	✓	✓	I frequently (frequently) love my family unconditionally
			Often			
			Sometimes			
			Occasionally			
Happy (Religion / meaning of life)	Daughter's first birthday. Happy within myself. Confident. Surrounded by family and friends. Not worrying about things. Laughter. Enjoying the party. Everyone was drinking. People singing karaoke. Mum in the ball pool. Meaning of memory: I can be less of a worrier again.	Sense of achievement on completing the ironing.	Frequently			I often (sometimes) feel happiness within myself
			Often	✓		
			Sometimes		✓	
			Occasionally			
Strength (Health)	Just before getting married. Exercised: swimming, exercise dvds, walked everywhere, ate well. No-one else. Pleased with self. Confident. Meaning of memory: I can be motivated again.	Clearing out the extension.	Frequently	✓		I frequently (occasionally) strengthen my physical abilities
			Often			
			Sometimes			
			Occasionally		✓	

Practice of affirmations

At her first intervention appointment participant 1 identified getting dressed in the morning was the best time to pick an affirmation for the day. She missed her second intervention appointment which she attributed to having been busy over Christmas. When her third appointment was rearranged participant 1 reported that:

- she had forgotten to practise her affirmations on a couple of days due to the weekend disrupting her usual routine.
- she had remembered to repeat the affirmation in her head on a few days
- she had sometimes recalled the corresponding visualisation which had evoked positive emotions

- she did not carry the cards on her.
- she had told her husband about the affirmations she was practising and he had been supportive and reminded her to do them.

New visualisations

Affirmation 1: 'I love my family unconditionally'

- she had used this affirmation following a disagreement with her husband in which she had felt criticised regarding how she 'deals with the children'. She said she had felt a pull between not speaking and being okay, but had tried to let her grudge go immediately, rather than giving him 'one word answers' and discussed it with him instead in an effort not to spoil the rest of the evening.

Affirmation 2: 'I often feel happiness within myself'

- she spoke about how she had felt when she reached 9 stone 12 pounds. She was encouraged to think of another example that was unrelated to her weight.
- She spoke about how she felt on finishing the ironing, i.e. pleased and relieved. When she was asked to talk through how she had spent the rest of this day the idea of rewarding herself for achievements was discussed.

Affirmation 3: 'I frequently strengthen my physical abilities'

- she spoke about how happy she had been whilst clearing out the extension and putting stuff in the skip.

Intervention related comments in final intervention session and follow-up appointment

At her fourth appointment (intervention appointment 3) participant 1 reported that she:

- had practised an affirmation in the morning every day over the last week; however, she had not repeated the affirmation to herself during the day as she was too busy.
- did not find it particularly easy to practise the affirmation as she was 'not the type of person who thinks about things, especially when it comes to myself'.
- was eating healthily and that when she wanted chocolate she was visualising herself as she would like to look which was spurring her on.

Participant 1 attended a rearranged fifth and final appointment.

4.22 Participant 2:

At her second appointment, (intervention appointment 1), participant 2 reported that she had her Prozac increased two weeks previously, (one week following the collection of baseline measures). The details of the values that were selected from the Personal Values Questionnaire, their corresponding visualisations, ratings of the degree to which she believed she demonstrated these values and affirmation are presented in Table 3.

Table 3) Values, visualisations, hierarchy ratings and affirmations for Participant 2

Personal Value (Domain)	Visualisation of personal value in action		Hierarchy Rating	Appt 1	Appt 2	Affirmation
	Intervention appointment 1	Intervention appointment 2				Appt 1 (Appt 2)
Easygoing (Relationship)	Together with husband, being playful, spontaneous, unplanned, naturally evolves into intimacy, in bed/chilling out, feeling good, relaxed, Meaning of memory: I am happy, loved and secure.	Stroking husband's hair.	Frequently			I occasionally (sometimes) act as though I am at ease in my relationship.
			Often			
			Sometimes		✓	
			Occasionally	✓		
Relaxed (Leisure)	Walking in the local forest and having ideas about writing. Negativity draining away. Beauty everywhere. Trees, deers, the sun, like a medicine, look forward to it, feel better afterwards. Therapeutic, need it. Meaning of memory: I feel strong, good, positive.	Deciding to go out with a friend and feeling good afterwards.	Frequently			I sometimes (sometimes) relax in my leisure time.
			Often			
			Sometimes	✓	✓	
			Occasionally			
Safe and secure (Spirituality)	Reading 'Conversations with God' and other books on Buddhism. Saw self. Excited. Wanting to talk about it. A sense of hope and enlightenment. A bit smug. I lose fear/s of the unknown, death and dying, being alone, separation from loved	Seeing men with guns in the forest and letting go of too much thought about this.	Frequently			I occasionally (sometimes) reassure myself that all is well with the world.
			Often			
			Sometimes		✓	
			Occasionally	✓		

	ones. Meaning of memory: I feel secure and confident.					

Practice of affirmations

At her first intervention appointment participant 2 identified that she would practise her affirmations on arriving at work, after setting up for the day.

At her second intervention appointment participant 2 reported she:

- had used different ways of selecting a card; shuffling them/throwing them up in the air to see which one landed near her/choosing one deliberately.
- had said the affirmations in her head during gaps in the day when she was waiting for a client.
- used different ways of saying the affirmation; singing it along to a tune/saying it in front of a mirror/saying it in response to negative thoughts.
- would recall the memory after saying the words experiencing positive emotions as a result.
- had carried the cards on her but had chosen not to tell anyone about her affirmation practice.

New visualisations

Affirmation 1: 'I occasionally act as though I am at ease in my relationship'

- In relation to a girl returning to work she had 'faced this not so seriously', but with acceptance and approval, and she said this had been noticed by her husband.
- In a situation in which she had been stroking the cats and then began stroking her husband's hair.

Affirmation 2: 'I sometimes relax in my leisure time'

- Meeting a friend in a pub after work for a chat and a drink. She said that she often turned down or avoided opportunities to see friends. She had not really wanted to go but thought she would do it 'to see if I was at ease there'. She said she had enjoyed it and felt better which left her feeling satisfied. Rather than putting on a face 'so no-one suspects something's wrong' she said it had been a nicer experience for her, that she had felt more comfortable and allowed herself to enjoy it.

Affirmation 3: 'I occasionally reassure myself that all is well with the world'

- In a situation in which she had seen two men with guns in the forest she said she had the thought 'leave the deer alone' and been upset by this, then told herself that there was a reason for

everything and that 'all is well' and she said a heavy sadness had been released by turning away from trying to fix something that she could not fix or find an answer for, letting it go and moving on to another thought.

Intervention related comments in final intervention session and follow-up appointment

At her third intervention appointment participant 2 reported that:

- she had practised her affirmations every day and had found it to be quite helpful when she was caught up in circumstances, describing the practise of affirmations as 'an escape route out of my own thoughts'.
- that other affirmations had come to mind e.g. 'I am okay with what is happening around me' and 'I choose to enjoy _____'.

At her fifth and final appointment participant 2 reported that:

- it had felt strange at first, practising affirmations 'alone', without weekly appointments.
- she had made her own affirmations up; 'stuff I thought I needed to know that day' and stated that this had felt alright, that she had her 'own little routine', however, she would sometimes forget.

4.3 Quantitative data

4.31 Proposition 1: The practice of values-based self-affirmations will reduce cognitions associated with eating disorder and behaviours associated with BN

Scores obtained for the Eating Disorder Inventory (Third Edition) across the four time points, baseline, pre-treatment, post-treatment and follow-up, for participants 1 and 2 are presented below.

EDI-III risk and psychological scales

Table 4: EDI-III risk and psychological scale raw scores across time points for participants 1 and 2

Measure	Participant	Baseline	Pre-treatment	Post-treatment	Follow-up
Eating Disorder Risk Scale and Composite					
Drive for Thinness					
	1	25	26	25	26
	2	20	20	19	19
Bulimia					

	1*	21	15	14	14
	2	20	22	17	20
Body Dissatisfaction					
	1*	38	34	30	35
	2	35	36	33	33
<u>Psychological Scale and Composite</u>					
Low Self-Esteem					
	1	10	10	8	10
	2	13	18	16	15
Personal Alienation					
	1*	13	10	9	6
	2	19	19	21	14
Interpersonal Insecurity					
	1*	15	10	11	9
	2**	17	16	14	11
Interpersonal Alienation					
	1	3	1	1	1
	2*	10	11	13	12
Interoceptive Deficits					
	1	15	10	12	16
	2*	17	17	12	11
Emotional Dysregulation					
	1	3	3	4	2
	2	8	8	9	8
Perfectionism					
	1	8	13	10	10
	2	9	7	7	7
Asceticism					
	1	11	12	9	8
	2	18	19	20	16
Maturity Fears					
	1	11	11	11	10
	2	12	6	10	8

*Indicates EDI-III risk and psychological scale Reliable Change Index scores at the .68 level of confidence. **Indicates EDI-III risk and psychological scale Reliable Change Index scores at the .95 level of confidence. The means of baseline and pre-treatment scores were compared with the means of the post-treatment and follow-up scores.

Relative to normative data for the EDI-III (Garner, 2004) presented in Appendix 21 participants' pre-treatment scores would generally appear to be lower and their post-treatment scores higher than those of the normative sample.

As indicated within Table 4, participant 1 experienced reliable change in a positive direction at the .68 level of significance on the EDI-III subscales relating to Bulimia, Body Dissatisfaction Personal Alienation and Interpersonal Insecurity. On the Bulimia subscale her scores moved from the 'Elevated' range at baseline to the 'Typical' range across the remaining time points. On the Body Dissatisfaction subscale her scores moved from the 'Elevated' range at baseline to the 'Typical' range at pre and post-treatment, then returning to the 'Elevated' range at follow-up. On the Personal Alienation subscale her scores remained in the 'Low' range across time points. On the Interpersonal Insecurity subscale her scores remained in the 'Typical' range between pre-treatment and follow-up. Please see Appendix 22 for full details of EDI-III subscale classifications of scores for both participants.

However, on closer inspection of the data presented in Table 4, it would appear that reliable change indices may relate to the high scores at baseline on all of these subscales and the reduction in scores between baseline and pre-treatment rather than between pre-treatment and follow-up. The change between pre and post scores on the Bulimia subscale is by just one point. The change in the Body Dissatisfaction subscale score is not maintained and ends up slightly higher at follow-up than it was pre-treatment. On the Interpersonal Insecurity subscale participant 1's score is, relative to the pre-treatment score, one point higher post-treatment and one point lower at follow-up. There is most convincing evidence of a steady reduction in scores on the Personal Alienation subscale. With regards to other subscales for which reliable change was not indicated, participant 1 appeared to experience small reductions in scores, indicative of positive change, on Low Self-Esteem, Interpersonal Alienation, Perfectionism and Asceticism subscales. Small increases in scores, indicative of negative change, were indicated on Interoceptive Deficits and Emotional Dysregulation subscales.

Participant 2 experienced reliable change at the .68 level of confidence on EDI-III subscale Interoceptive Deficits in a positive direction and Interpersonal Alienation in a negative direction. Her scores also indicated reliable change in a positive direction at the .95 level of confidence on the EDI-III subscale related to Interpersonal Insecurity. On the Interpersonal Alienation subscale her scores remained in the 'Typical' range across time points. On the Interoceptive Deficits subscale her scores moved from the 'Typical' range at baseline, pre-treatment and post-treatment to the 'Low' range at follow-up. On the 'Interpersonal Insecurity' subscale her scores moved from the 'Elevated' range at baseline and pre-treatment to the 'Typical' range post-treatment and at follow-up.

On closer inspection of the data presented in Table 4, it would appear that there is most evidence of a steady reduction in scores, indicative of positive change, on the Interpersonal Alienation subscale. With regards to other subsacles for which reliable change was not indicated, participant 2 appeared to experience small reductions in scores on Drive for Thinness, Body Dissatisfaction, Bulimia, Low Self-Esteem and Perfectionism subscales. However, the reduction in scores on the Bulimia subscale was not fully maintained at follow-up. Small increases in scores, indicative of negative change, were indicated Personal Alienation, Emotional Dysregulation, Asceticism and Maturity Fears subscales.

Overall, changes in both participants' scores on EDI-III subscales were small and indicated change in both positive and negative directions. Where reliable change was indicated, in the majority of cases this would appear to be related to reductions in scores between baseline and pre-treatment. Therefore changes in scores may be attributable to naturally occurring fluctuations over time rather than the practice of values-based self-affirmations.

EDI-III composites

Table 5: EDI-III composite sum of T scores across time points for participants 1 and 2

Composite	**Participant**	**Baseline**	**Pre-Treatment**	**Post-Treatment**	**Follow-up**
Eating Disorder Risk	1**	84	75	69	75
	2*	75	78	69	72
Ineffectiveness	1*	23	20	17	16
	2	32	37	37	29
Interpersonal Problems	1*	18	11	12	10
	2*	27	27	27	23
Affective Problems	1	18	13	16	18
	2*	25	25	21	19
Overcontrol	1	19	25	19	18
	2	27	26	27	23
General Psychological Maladjustment	1	89	70	75	72
	2	117	121	122	102

*Indicates EDI-III composite Reliable Change Index scores at the .68 level of confidence. ** indicates EDI-III composite Reliable Change Index scores at the .95 level of confidence. The means of baseline and pre-treatment scores were compared with the means of the post-treatment and follow-up scores.

As indicated within Table 5, both participants experienced reliable change in a positive direction on the EDI-III Eating Disorder Risk composite, participant 1 at the .95 and participant 2 at the .68 level of confidence. However, both participants' scores remained within the 'Typical' range between pre-treatment and follow-up and whilst reductions in scores were observed between pre and post-treatment, these reductions were not entirely maintained at follow-up. Please see Appendix 22 for full details of EDI-III composite classifications of scores.

Both participants also experienced reliable change in a positive direction on the Interpersonal Problems composite at the .68 level of confidence. However, participant 1's scores remained in the 'Low' range and participant 2's in the 'Typical' range between pre-treatment and follow-up. Whereas participant 1's score steadily reduced, there was no change in participant 2's scores between pre and post-treatment and it was only at follow-up that her score had reduced.

Graphs comparing the scores of participants with the pre and post-treatment scores of a normative sample (Garner, 2004) on the EDI-III composites for which both participants experienced Reliable Change, i.e. Eating Disorder Risk and Interpersonal Problems are presented in Appendix 23.

Participant 1 experienced reliable change on the Ineffectiveness composite at the .68 level of confidence. Her scores for this composite steadily reduced and moved from the 'Typical' range pre-treatment to the 'Low' range post-treatment and at follow-up. Participant 2 experienced no change in her scores between pre and post-treatment and a small reduction in her score at follow-up.

Participant 2 experienced reliable change in a positive direction at the .68 level of confidence on the Affective Problems composite. Her scores steadily reduced. However, her score remained within the 'Typical' range across time points. Participant 1's scores increased between pre and post-treatment, indicating change in a negative direction. However, her scores remained in the 'Typical' range across time points.

Neither participant experienced reliable change on the Overcontrol composite. However participant 1's scores for the Overcontrol composite steadily reduced and moved from the 'Typical' range pre-treatment to the 'Low' range post-treatment and at follow-up. Participant 2's scores increased slightly between pre and post-treatment however remained within the 'Typical' range across time points.

Neither participant experienced reliable change on the General Psychological Maladjustment composite and both participants' scores increased slightly whilst remaining in the 'Elevated' range across time points.

Overall, changes in both participants' scores on EDI-III composites were small and indicated change in both positive and negative directions. Where reliable change was indicated, in a few cases this may have been significantly contributed to by reductions in scores between baseline and pre-treatment. Therefore changes in scores may be attributable to naturally occurring fluctuations over time rather than the practice of values-based self-affirmations. Normative data (presented in Appendix 21) also suggests that the intervention did not make a particularly strong impact upon EDI-III subscale or composite scores despite participants presenting with relatively low EDI-III scores to begin with.

EDI-III Validity scales

Table 6: EDI-III validity scale scores across time points for participants 1 and 2

Scale	Participant	Baseline	Pre-Treatment	Post-Treatment	Follow-up
Inconsistency	1	3	7	10	4
	2	6	7	7	5
Infrequency	1	0	0	0	0
	2	0	0	0	0
Negative Impression	1	16	13	11	13
	2	19	16	17	13

With respect to the validity scales (for which it was not possible to calculate reliable change) presented in Table 6, both participants experienced some reduction in their Negative Impression scores over the course of the intervention. Both participants' scores remained well within the 'Typical' range across time points.

Behavioural measures

Participant 1 reported that she was bingeing and purging approximately 3-4 times a week pre-treatment. Post-treatment she reported that she had not binged or purged at all for 2 months previously.

Participant 2 reported that she was bingeing and purging twice a day pre-treatment. Post-treatment she reported that she was bingeing once to twice daily.

Participant 1 reported 'yo-yo' dieting pre and post-treatment. Participant 2 reported restrictive eating all day up until 8pm when she would begin bingeing pre and post-treatment. Participant 1 was not taking

any exercise pre or post-treatment. Participant 2 walked daily for one hour pre and post treatment. Neither participant used laxatives or diuretics pre or post-treatment.

4.32 Proposition 2: The practice of values-based self-affirmations will enhance attitude towards change

Attitude towards Change Scales

Table 7: Attitude towards Change scales scores across time points for participants 1 and 2

Scales	Participant	Baseline	Pre-treatment	Post-treatment	Follow-up
Motivation to change	1	10	10	10	10
	2	8	8	10	10
Confidence in ability to change	1	8	8	8	8
	2	6	4	6	4
Readiness to change	1	10	10	10	10
	2	6	7	8	10

As indicated within Table 7, participant 1's motivation to change remained high across time points. Participant 2's motivation to change increased post-treatment and this increase was maintained at follow-up.

Participant 1's confidence in her ability to change remained high across time points. Participant 2's score regarding her confidence in her ability to change increased post-treatment, but her score returned to that at which it had been pre-treatment at follow-up.

Participant 1's readiness to change remained high across time points. Participant 2's readiness to change increased post-treatment and had increased further at follow-up.

4.33 Proposition 3: The practice of values-based self-affirmations will increase self-esteem

Scores from the Rosenberg Self-Esteem Scale and the Low Self-Esteem subscale of the EDI-III are presented below. The discrepancy between self and ideal self ratings (proposition 4) may also be taken as an additional measure of self esteem.

Rosenberg Self-Esteem Scale

Table 8: Rosenberg Self-Esteem Scale scores across time points for participants 1 and 2

Participant	Baseline	Pre-treatment	Post-treatment	Follow-up
1	11	13	14	17
2	11	9	19	10

As indicated within Table 8, participant 1's scores increased at both post-treatment and follow-up. However, participant 1 did not experience reliable change on the Rosenberg Self-Esteem Scale. For participant 2 reliable change in a positive direction was indicated at the .68 level of confidence. However, whilst participant 2's score increased greatly post-treatment it then returned almost to the level at which it had been pre-treatment at follow-up. Her follow-up score was lower than it had been at baseline, perhaps indicative of normal fluctuations over time.

Low Self-Esteem subscale of the EDI-III

Neither participant experienced reliable change on the Low Self-Esteem subscale of the EDI-III.

4.34 Proposition 4: The practice of values-based self-affirmations will reduce the discrepancy between participants' self and ideal self (with regards to the frequency with which their behaviour is perceived as being in accordance with personal values)

The mean discrepancy between self and ideal self across all 9 constructs (values), and across time points is presented in Table 9. The mean discrepancy between self and ideal self ratings for affirmed and non-affirmed values across time points is presented in Table 10. Table 11 depicts the discrepancy between self and ideal self ratings for affirmed values across time points. Table 12 presents the Euclidean Distance between self and ideal self elements.

Table 9: Mean discrepancy between self and ideal self ratings across all 9 constructs (values)

Participant	Pre-Treatment	Post-Treatment	Follow-Up
1	2.8	1.9	1.7
2	3.9	2.9	3.3

Table 10: Mean discrepancy between self and ideal self ratings for affirmed i.e. practised and non-affirmed values

Participant	Affirmation condition	Pre-Treatment	Post-Treatment	Follow-Up
1	Affirmed	3.4	2.4	2.7
	Non-affirmed	2.5	1.7	1.2
2	Affirmed	5	3.3	3.3
	Non-affirmed	3.3	2.7	3.2

Table 11: Discrepancy between self and ideal self ratings for affirmed i.e. practised values

Participant	Affirmation value	Pre-Treatment	Post-Treatment	Follow-Up

	& domain			
1	Loving (family)	1	0	0
	Happy (religion)	4	3	4
	Strong (health)	5	4	4
2	Easygoing (husband)	6	4	2
	Relaxed (leisure)	2	1	4
	Secure/safe (religion)	7	5	2

Table 12: Self-Ideal Self Element Euclidean Distance

Participant	Pre-Treatment	Post-Treatment	Follow-Up
1	2.10	1.81	1.69
2	1.65	1.56	1.62

As indicated within Table 9, both participants appeared to experience some reduction in the mean discrepancy between self and ideal self ratings across constructs (values) generally over time. However this reduction was not maintained for participant 2 at follow-up. Euclidean distances (see Table 12) indicate a very slight shift towards the ideal self in participants' constructions of themselves, which is greater for participant 1 than participant 2.

Both participants experienced a greater reduction in the discrepancy between self and ideal self ratings for affirmed as opposed to non-affirmed values at post-treatment (see Table 10). For participant 2 this was not entirely maintained at follow-up, but for participant 1 the discrepancy between self and ideal self ratings for non-affirmed values showed a greater reduction at follow-up which raises the question of whether the reduced discrepancy between self and ideal self ratings was related to the intervention.

Looking at the individual values that were affirmed for each participant (see Table 11), participant 1 experienced a reduction in the discrepancy between her self and ideal self ratings for all three of her affirmed values at post-treatment, two of which saw the reduction maintained at follow-up. Participant 2 experienced a reduction in the discrepancy between her self and ideal self ratings for all three of her affirmed values at post-treatment. For two of these, the discrepancy had further reduced at follow-up. For one of her affirmed values the discrepancy between her self and ideal self ratings that was observed at follow-up had increased so that it was greater than it had been pre-treatment. Reductions in the discrepancy between self and ideal self ratings were therefore not maintained at follow-up for two of the six affirmed values. In the absence of baseline measures it is difficult to ascertain the degree to which changes in scores were the result of normal fluctuations over time.

4.35 Proposition 5: The practice of values-based self-affirmations will result in effects that may be explained by theory underpinning Personal Construct Psychotherapy

SELF Repertory Grids

A Principal Components Analysis was carried out for each of the grids completed by participant 1 and 2 across each time point, pre-treatment, post-treatment and follow-up, the graphs for which are presented in Appendix 24. Please see Appendix 25 for an example of a completed repertory grid from which these graphs were constructed.

Change Across Constructs (Values)

With regards to the degree of change observed generally across constructs, the general degree of correlation between grids is presented in table 13. Table 14 depicts the percentage of variance accounted for by the first principal component. A higher value indicates 'tighter' or more uni-dimensional construing. Tables 15a and 15b show the percentage variance accounted for by the first component from principal component analysis across constructs. It might be expected that the percentage variance accounted for by the first component from principal component analysis would increase for those values that had been affirmed, in line with the idea that these particular personal constructs might become more superordinate for participants.

Table 13: General Degree of Correlation between grids

Participant	Pre-Treatment vs Post-Treatment	Pre-Treatment vs Follow-Up
1	0.85	0.67
2	0.76	0.71

Table 14: Percentage of Variance accounted for by the 1st Principal Component from Principal Component Analysis across grids

Participant	Pre-Treatment	Post-Treatment	Follow-Up
1	83.37	84.71	90.57
2	84.85	83.98	77.46

Table 15a: Percentage Variance accounted for the 1st Principal Component from Principal Component Analysis across constructs for participant 1

*Affirmed i.e. practised value

Construct (value)	Pre-Treatment	Post-Treatment	Follow-Up
Loving*	2.21	2.19	0.00
Trusted	6.74	3.29	3.23
Honest	5.89	3.43	5.52
Doing job well	2.53	5.62	5.92
Confident	22.74	24.14	16.15
Fun	14.74	17.70	7.54
Happy*	16.42	13.85	29.74
Kind	4.63	2.88	2.15
Strong*	24.11	26.89	29.74

Table 15b: Percentage Variance accounted for the 1st Principal Component from Principal Component Analysis across constructs for participant 2

*Affirmed i.e. practised value

Construct (value)	Pre-Treatment	Post-Treatment	Follow-Up
Reliable	8.24	6.64	3.84
Caring (friends)	1.93	3.79	1.83
Easygoing*	15.03	16.68	16.69
At peace with	14.05	16.68	14.13
Motivated	14.02	7.74	19.39
Relaxed*	2.18	1.32	4.39
Secure/safe*	24.49	20.25	17.79
Caring (community)	6.19	7.96	9.88
Caring (health)	13.89	18.94	12.07

The correlation between grids presented in Table 13 indicated that there had been some reconstruing between pre and post-treatment assessments and yet more at the follow-up assessment. Participant 1's construing would appear to have become 'tighter' or more rigid over time, whereas participant 2 appeared to be construing with greater flexibility (see Table 14). It is difficult to rule out the possibility that these changes were attributable to the intervention, rather than naturally occurring fluctuations, in the absence of baseline measures. The percentage variance accounted by the first principal component from principal component analysis increased for two of participant 1's affirmed values and decreased for one of them (see Table 15a). The percentage variance accounted by the first principal component from principal component analysis increased slightly across time points for one of participant 2's affirmed values (see Table 15b). It decreased over time for another, and decreased at post-treatment before increasing at follow-up for the third. Considered within the context of the variance accounted by the first principal component from principal component analysis for non-affirmed values, some of which also increased,

there would not appear to be a clear relationship between the affirmation of values and an increase in the variance accounted by the first principal component from principal component analysis.

4.36 Proposition 6: The practice of values-based self-affirmations will increase self-compassion

Self Compassion Scale: Short Form

Table 16: Self Compassion Scale: Short Form scores across time points for participants 1 and 2

Participant	Baseline	Pre-treatment	Post-treatment	Follow-up
1	33	31	33	32
2	24	23	21	29

As indicated within Table 16, participant 1's score increased slightly post-treatment, reducing at follow-up to a score that was still slightly higher than it had been pre-treatment. Participant 2's score decreased slightly at post-treatment, increasing at follow-up to a score above that which had been obtained pre-treatment. Neither participant's scores showed evidence of reliable change as measured by calculating the Reliable Change Index. Taking into account baseline scores, which were both higher than pre-treatment scores and higher or equal to post-treatment scores, raises the question of whether changes in scores over time points are attributable to naturally occurring fluctuations rather than the intervention.

4.37 Proposition 7: The practice of values-based self-affirmations will improve body image

Body Image Acceptance and Action Questionnaire

Table 17: Body Image Acceptance and Action Questionnaire scores across time points for participants 1 and 2

Participant	Baseline	Pre-treatment	Post-treatment	Follow-up
1	83	84	90	83
2	94	85	86	84

As indicated within Table 17, participant 1's score increased post-treatment, indicating an increase in body image acceptance. However, her score at follow-up reduced so that it was below that at which it had been pre-treatment. Participant 2's score increased only slightly post-treatment, but her score at follow-up reduced so that it was below that at which it had been pre-treatment. Taking into account participant 2's baseline score in relation to her pre-treatment score indicates that her scores on this measure are liable to fluctuations much greater than any change that was experienced following the intervention.

4.38 Proposition 8: The practice of values-based self-affirmations will increase psychological flexibility

Acceptance and Action Questionnaire-II

Table 18: Acceptance and Action Questionnaire-II scores across time points for participants 1 and 2

Participant	Baseline	Pre-treatment	Post-treatment	Follow-up
1	27	27	29	27
2	39	40	39	35

As indicated within Table 18, participant 1's score increased post-treatment indicating a reduction in psychological flexibility. However, her score at follow-up reduced so that it was that at which it had been pre-treatment. Participant 2's score decreased slightly post-treatment and decreased further at follow-up indicating an increase in psychological flexibility. However, participant 2's baseline score indicates that the change in her scores may be attributable to a naturally occurring fluctuation in her scores over time. Neither participant's scores showed evidence of reliable change as measured by calculating the Reliable Change Index.

4.39a Proposition 9: The practice of values-based self-affirmations will reduce cognitive fusion

Cognitive Fusion Questionnaire

Table 19: Cognitive Fusion Questionnaire scores across time points for participants 1 and 2

Participant	Baseline	Pre-treatment	Post-treatment	Follow-up
1	132	124	126	119
2	123	127	125	133

As indicated within Table 19, participant 1's score increased post-treatment (from pre-treatment) indicating an increase in cognitive fusion. Her score at follow-up reduced so that it was below that at which it had been pre-treatment. However, her score post-treatment was not as high as it had been at baseline. Participant 2's score decreased slightly post-treatment, indicating a small reduction in cognitive fusion. Her score increased at follow-up so that it was greater than it had been pre-treatment, thereby indicating an increase in cognitive fusion. For both participants, taking into account baseline scores raises the question of whether changes in scores over time points are attributable to naturally occurring fluctuations rather than the intervention.

4.39b Proposition 10: The practice of values-based self-affirmations will result in effects that may be explained by theory underpinning Acceptance and Commitment Therapy

Small improvements were observed in both participants' scores on the Self Compassion Scale: Short Form at follow-up. However, one participant experienced an increase and one participant a decrease in their scores at post-treatment.

Small improvements were observed in both participants' scores on the Body Image Acceptance and Action Questionnaire at post-treatment. However, both participants' scores at follow-up reduced so that body image acceptance was below that at which it had been pre-treatment.

On the Acceptance and Action Questionnaire-II, one participant's score increased and one participant's score reduced at post-treatment. Both participants' scores reduced at follow-up, so that one participant's score was that at which it had been pre-treatment and one participant's score indicated an increase in psychological flexibility from her pre-treatment score.

For the Cognitive Fusion Questionnaire one participant's score increased post-treatment, then decreased at follow-up so that it was below that at which it had been pre-treatment, indicating a reduction in cognitive fusion. The other participant's score decreased slightly post-treatment, indicating a small reduction in cognitive fusion, and then increased at follow-up, so that it was greater than it had been pre-treatment, thereby indicating an increase in cognitive fusion.

Neither participant's scores showed evidence of reliable change in their scores on the Self Compassion Scale or the Acceptance and Action Questionnaire-II where reliable change was measured by calculating the Reliable Change Index.

Across measures of relevance to theory underpinning Acceptance and Commitment Therapy, taking into account baseline scores raises the question of whether the small changes in scores over time points are attributable to naturally occurring fluctuations rather than the intervention.

4.39c Summary of propositions and results

Table 20: Summary of propositions and results

Proposition The practice of values-based self affirmations will…	Finding	Supporting Evidence
reduce cognitions associated with ED and behaviours associated with BN	Tentative support	Participant 1's scores indicated Reliable Change in a positive direction at the .68 level of confidence on EDI-III Bulimia, Body Dissatisfaction, Personal Alienation and Interpersonal Insecurity subscales. Participant 2's scores indicated Reliable Change in a positive

		direction at the .68 level of confidence on EDI-III Interpersonal Alienation and Interoceptive Deficits subscales. Participant 2's scores also indicated Reliable Change in a positive direction at the .95 level of confidence on the EDI-III Interpersonal Insecurity subscale. Both participants' scores reflected Reliable Change in a positive direction for the EDI-III Eating Disorder Risk composite, participant 1 at a .95 and participant 2 at a .68 level of confidence. Both participants' scores also indicated Reliable Change in a positive direction on the EDI-III Interpersonal Problems composite at a .68 level of confidence. Participant 1's scores indicated Reliable Change in a positive direction on the EDI-III Ineffectiveness composite at the .68 level of confidence. Participant 2's scores indicated Reliable Change in a positive direction on the EDI-III Affective Problems composite at the .68 level of confidence. The frequency of both participants' bingeing and purging post-treatment was reduced relative to frequencies reported pre-treatment.
enhance attitude towards change	Supported	Participant 1's scores indicated that motivation, confidence in ability and readiness to change remained high across time points. Participant 2's scores indicated that motivation and readiness to change increased across time points.
increase self-esteem	Unsupported	Participant 1's scores on the Rosenberg Self-Esteem Scale did not indicate that Reliable Change had occurred. Participant 2's scores indicated Reliable Change in a positive direction on the Rosenberg Self-Esteem Scale at the .68 level of confidence. Neither participant experienced Reliable Change on the Low Self-Esteem subscale of the EDI-III.
reduce the discrepancy between participants' self and ideal self	Tentative support	Both participants experienced some reduction in the mean discrepancy between self and ideal self ratings over time points. Both participants experienced a greater reduction in the discrepancy between self and ideal self ratings for affirmed as opposed to non-affirmed values post-treatment.
result in effects that may be explained by theory underpinning Personal Construct Psychotherapy	Unsupported	Participant 1's construing appeared to become 'tighter' or more rigid over time points. The percentage variance accounted by the first principal component from principal component analysis increased for two of participant 1's affirmed values and decreased for one of them.

		Participant 2's construing appeared to become more flexible over time points. The percentage variance accounted by the first principal component from principal component analysis increased slightly across time points for one of participant 2's affirmed values. It decreased over time for another, and decreased at post-treatment before increasing at follow-up for the third.
increase self-compassion	Unsupported	Both participant's scores indicated an almost imperceptible degree of change in a positive direction. However, neither participant's scores showed evidence of Reliable Change.
improve body image	Unsupported	Both participant's scores indicated an almost imperceptible degree of change in a positive direction.
increase psychological flexibility	Unsupported	Participant 1's scores indicated an almost imperceptible degree of change in a negative direction. Participant 2's scores indicated an almost imperceptible degree of change in a positive direction. Neither participant's scores indicated Reliable Change.
reduce cognitive fusion	Unsupported	Participant 1's scores indicated an almost imperceptible degree of change in a negative direction. Participant 2's scores indicated an almost imperceptible degree of change in a positive direction.
result in effects that may be explained by theory underpinning Acceptance and Commitment Therapy	Unsupported	Scores indicated an almost imperceptible degree of change – in both negative and positive directions – with regards to psychological flexibility and cognitive fusion. Neither participant's scores indicated Reliable Change with regards to psychological flexibility. Both participant's scores indicated an almost imperceptible degree of change in a positive direction with regards to body image acceptance.

4.4 Helpful Aspects of Therapy Questionnaire

Participants' responses to the Helpful Aspects of Therapy questionnaire which was completed following intervention appointments 1 and 2 are presented in Table 21. In terms of aspects of the intervention that participants had found to be helpful, participant 1 referred to recalling positive memories, recognising achievements and talking through the use of visualisations. Participant 2 stated that clarifying areas to work on, being asked questions and receiving encouragement to use the personal affirmations that she herself had developed had been experienced as helpful. Participant 2 also reported that the use of shared humour had been helpful in terms of the therapeutic process.

Table 21: Participants' responses to the Helpful Aspects of Therapy questionnaire

Participant	Intervention Appointment	Helpful Event	Why it was Important	Helpfulness Rating
1	1	-It was nice to be asked when I was last happy. When I thought about the memory, I felt how happy I had been in it. -Thinking about how I used to feel within myself.	- It made me feel happy to know that I did feel that amount of happiness in that memory. - Thinking how much I want to feel that again.	8 (Greatly) 7 (Moderately)
	2	-Talking about how I achieved one of my affirmations. -Discussing rewards to the daily things I achieve.	-My therapist explained that I did well to achieve this which made me feel positive about myself. -I will try to have some me time/thing to reward myself a bit more.	8 (Greatly) 7 (Moderately)
	3	-Talking about how I found doing the visualisations.	-I realized that although I didn't repeat the visualisation written down, I used visualisation when trying to complete another task.	Unrated
2	1	-The summing up of the 3 main points to address (affirmations). -Being asked questions.	-Made it clearer in my mind and confirmed the most important issues to work on, rather than a whole bunch of issues. Now I can focus on the 3 main points. -The questions made me realize how little I think about some things in my life as I struggled to reach answers easily!	8 (Greatly) 8 (Greatly)
	2	-When told: It was good at the thought of using new visions for affirmations as they were recent and positive that I had created myself in the past week! -A little giggle now and again.	-I felt like I'd achieved a slight move towards a more positive way of thinking and looked forward to using the affirmations in the week ahead. -Only that I felt a little more at ease or comfortable this time.	8 (Greatly) 6 (Slightly)
	3	-When 'handing over' to me with respect of choosing my	-It was helpful to know that this has come at just the	8 (Greatly)

		own affirmations and using them in the future if I wished.	point that I was having ideas of my own affirmations and wondering if I should and wanting to use them.	

4.5 Qualitative data: Interviews

Interview transcripts were coded and themes and sub-themes identified following the process that has been described in the Methodology. An example of how interview transcripts were coded is presented in Appendix 26. Table 22 presents the sub-themes that were identified within and across participants' responses. Themes and sub-themes are then expanded upon and supported by relevant quotes.

4.51 Themes and sub-themes

Table 22: Themes, and sub-themes in interviews – within and across participants

Theme	**Sub-themes across Participants 1 & 2**	**Sub-themes – Participant 1**	**Sub-themes – Participant 2**
How did you use them in practice?	Did not use them Finding a time to do them Remembering to repeat them during the day		Reactively - as a coping strategy Silently
Did you tell anyone else?		Yes: positive encouragement	No: Privacy Fear of not being understood Feeling silly
Challenges?	Finding a time to do them Remembering to repeat them Finding it hard to use them when feeling low Situations arising in the day not being relevant to a particular affirmation	Feeling silly Remembering to use them reactively to cope Not being used to saying good things to oneself and to be kind to self – self denial Viewing self help as a form of weakness – need to be strong Openmindedness / embracing them Not being in touch with feelings	
Benefits?	Reactions to situations	Felt more positive	Resisting negative thoughts

	changed	towards self	Handling relationships better
Mood?	Letting go of anger and resentment / stress	Choosing enjoyment	Feeling more relaxed Keeping moods more consistent Lifting mood – looking on the bright side, uplifted and lightening up Excitement
Behaviour?	Flexibly choosing to behave/react in a different way P1) – (not to behave negatively) to change reaction - and in a way that is consistent with desired outcome P2) (to proactively behave positively – involve self, help) Restraining self/controlling reactions		Self affirmation becoming a habit Eating more healthily
Thoughts?		Did not believe it did much to alter her thoughts Understanding self	Trust and curiosity Controlling thoughts Letting negative ones go, avoiding overanalysis, resisting negative thoughts, Observing Aware of how I need to look after myself a bit more Making healthier choices Questioning whether want to engage in eating disordered behaviour Up for change/motivation to change Intrusive positive thoughts that fill a gap
Feelings about yourself?	Pride/praise – again 'pat on the back'	Less like a skivvy Honesty about this	Calmness, better able to handle feeling intimidated or insecure Feeling good Becoming more friendly with yourself Worth – I deserved it
Personal relationships?	Improved relationship with husband /Improved/less argumentative relationship with husband More openness/vulnerability in relationship with husband / Less defended in relationships		Improvement in relationships generally
Coping strategies?		No	Handing situations that intimidate/give rise to

			insecurity – calmness/comfort/distraction
Achievement?		Recognising achievements in every day life	No
Most useful?		Discussing with therapist situations in which affirmations had been applied Questionnaires – understanding self better Defining values – understanding self better and what aspects of self might benefit from change	Using personalised affirmations Making own affirmations up according to circumstances Repetition of affirmations – in preparation/as distraction
Least helpful?	Visualisation		
Use affirmations in future?		Possibly after other issues had been addressed	Yes – will continue using it as a self help tool, open to using it in further psychological therapy

*Numbers in tables correspond to the numbers presented in the text below tables.

4.511 How did participants use the affirmations in practice?

Table 23: Quotes regarding how participants used the affirmations in practice

Point	Participant	Quote
1	1	*I wouldn't say I always put them into practise… I think there was one day when I didn't do it due to circumstances at home… Sometimes I would try and remember…But um… Sometimes I just, I didn't, I read it in the morning and that was that.*
	2	*there are days where I was not thinking and completely forgetting about it and I'd think 'oh gosh now I didn't do that yesterday' and 'I must do one today' and I can feel myself sort of slipping a little bit.*
2	2	*I used them pretty much with just shuffling the cards every morning…um sticking to a certain time of day and in my mind thinking what I need to carry with me that day, as an affirmation… so I just stuck to it, said it in my head over and over as many times as I could, reminding myself of it…if I was able to I would start visualising and using anything to like filter it into my mind, you know, so it would pop up unexpectedly sometimes.*
3	2	*Just when I remembered really and at times when I felt anxious about something or in a situation where I would normally not know how to cope or*

		react. Sometimes I've used them to kind of talk myself into…

1. Both participants reported that they had struggled to make self affirmation a habit which was related to finding the time and remembering to practise.
2. Participant 2 reported that she had used the affirmations 'pretty much as instructed'.
3. Participant 2 had also used the affirmations as a coping strategy.

4.512 Telling others about use of self affirmations

Table 24: Quotes regarding telling others about the use of self affirmations

Point	Participant	Quote
1	1	*They just asked it if helped… One of my friends had done something similar a few years back, and she was saying how it helped her.*
2	2	*Um maybe because I felt it's like a little private mission that I'm trying to deal with on my own or… I didn't tell anyone. I think if I told someone it would um make me feel a bit silly as well. I don't think they'd understand quite what or why… Or even if they did I'd just think oh, I don't want them to know. It's such a private thing...*

1. Participant 1 said that she had told friends, family and her husband about her use of self affirmations and received positive support and encouragement.
2. Participant 2 decided not to tell others about her use of self affirmations due to worries that it might not be understood and feeling silly.

4.513 Challenges faced in using self affirmations

Table 25: Quotes regarding challenges faced in using self affirmations

Point	Participant	Quote
1	1	*Um I think that I'm not really very used to saying good things to myself. You know trying…so I did, I think that, I did find that challenging to use them when I did feel very low about myself.*
	2	*Um I think at times when I, um… I think um, at times when I felt maybe on a bad day maybe it felt a bit useless or I just didn't believe in them.*
2	1	*For me I think it was to like repeat them to myself and to keep them in the forefront of my mind when maybe have the, you know, just to give myself a boost at times when maybe I found other things hard to deal with. I think it, that that was a challenge for me…*
3	1	*Er maybe situations that didn't come up in which I could have used that one that day.*

	2	*sticking to it, even if I thought 'oh don't know whether I need that one today or not'*
4	1	*I think it was just opening up myself to doing something new really and not feeling silly like reading them out to yourself in the morning…I think at the start it was, I did feel a bit silly yes, but when I saw it did help a couple of times, I didn't feel as silly…*
	2	*there are plenty of times I feel silly so I just kind of thought go with it, just get, there must be a reason behind it, just trust it and go with it, and just do it. Because I was curious to see what I'd get out of it or what, how it would benefit me so without trying I wouldn't know*
5	1	*I think for me it's a bit of self denial…I feel like I'm a strong enough person I don't need to say things to myself, I should be able to just get on with it…So…if I did the self aff…if I said them then it was kind of admitting that I do have weaknesses.*
6	1	*there's a barrier between my feelings and my head…I think they* (affirmations) *work on… I think they would help you with realising the feelings. But um as, I think it was harder for me to realise them.*

1. Both participants stated that it was more difficult to practise self affirmations when they were feeling particularly low in mood.
2. Participant 1 also said she had found it difficult to remember to use affirmations reactively to cope.
3. Both participants made reference to the possibility that the particular affirmation they were using might not be relevant to situations arising that day. Participant 1 said that she might not use a particular affirmation if it did not seem relevant to situations; whereas participant 2 said that she stuck to the practice of her affirmation regardless of whether it seemed relevant to situations.
4. Both participants referred to 'feeling silly'. Participant 1 questioned whether she had 'embraced' the practice of self affirmations enough, and related this to 'feeling silly'. Participant 2 indicated that faith and curiosity had helped her to overcome the obstacle that feeling silly might present.
5. Participant 1 also related the challenges she faced in using of self affirmations to a need to feel strong, and to self denial.
6. Participant 1 also indicated that not being in touch with her feelings had presented a challenge in using affirmations.

4.514 Benefits of using self affirmations

Table 26: Quotes regarding benefits of using self affirmations

Point	Participant	Quote
1	1	*I think there was a couple of times where I did think about them and my*

		reactions towards that situation changed slightly…I mean I think they diffused a situation for me. In the couple of times that I did use them.
2	2	*Yes…it's a nice feeling of talking to yourself in a positive way rather than letting the day go ahead and life happen and reacting to things negatively. It's a little bit more kind of… 'ready for the day' the start of bracing yourself to face challenges rather than just to react as and when they come along.*
3	1	*It might have um made me think differently about myself at different points, or in different situations I suppose it could have helped me stay more positive, rather than be a bit negative…mainly towards myself.*

1. Both participants reported that they had experienced positive change in how they reacted to situations.
2. Participant 2 also viewed self affirmations as a way of proactively preparing for the day ahead.
3. Participant 1, when asked what difference the affirmations might have made had she embraced them more, stated:
4. Participant 2 also reported benefits in relation to resisting negative thoughts and handling relationships better which are referenced below under 'Thoughts' and 'Personal relationships'.

4.515 Effects on mood

Table 27: Quotes regarding effects on mood

Point	Participant	Quote
1	1	*I didn't feel resentment or anger towards him, I just… I think one of the affirmations was about, it was to love your family unconditionally. So I tried to put that into place that, you know, I do love him unconditionally even if we have had a discussion and I didn't like it…Cos it made our evening more enjoyable to spend time with each other…It was, it felt nice that evening yes.*
	2	*found just letting things go easier and um yes not getting so stressed out. Just kind of maybe a little bit more on the relaxed side of things.*
2	2	*it definitely kept the better moods more consistent if you like by repeating the affirmations in my head. It did lift my mood a bit.*

1. Both participants indicated that they had noticed changes to their mood following the commencement of the practice of self affirmation. This particularly related to an improvement in the ability to 'let go' or release negative emotions and mood states such as anger, resentment and stress, therefore enabling the experience of more positive mood states such as enjoyment and relaxation.

2. Participant 2 described how her moods seemed to be more 'consistent' and more positive generally.
3. Participant 2 also referred to the mood in her relationship being 'uplifted and lightened' and to feeling 'quite excited' in relation to noticing how she had behaved differently in certain situations.

4.516 Effects on behaviour

Table 28: Quotes regarding effects on behaviour

Point	Participant	Quote
1	1	*instead of being stubborn and carrying on the argument with my husband I accepted that we'd said sorry and I let it…I carried on with the evening as I usually would if there hadn't been an argument/discussion. Whereas usually I probably would have just not spoken to him…I was able to…change my reaction, um, instead of having the same reaction that I usually would have.*
2	2	*Yes I think I am definitely looking back on situations where I would have been very negative and again choosing to react in a different way… Quite excited about that because it's quite a different thing for me…That I chose to, um, talk to myself a lot more in a more positive way. A situation came up where I could have easily brushed it aside or not bothered to act on it in a positive way where I know I can help, and I think I chose to do it and that kind of surprised people and it made me feel good, so… Um yes even acting differently has had a positive effect… I think they'd say…um, that instead of being so closed, you involved yourself more in a positive way and um yeah just wasn't so negative.*
3	2	*Yes. I found I was making a few more healthier choices, which was really positive…For example instead of not eating in the morning I would specifically get something really healthy in the fridge that I would open the fridge door in the morning and see something there like fruit, or something really good, and felt like I deserved it, rather than resisting it and just waiting to feel really tired in the day and just munching on some sweets and sugar.*
4	2	*Like for example I was having loads and loads of food on a binge and I was, in the back of my mind, doing it and thinking 'I don't actually really want to do it'. I don't know why I'm doing it, it's like a habit. So continued to do it and just did what I normally do, but I thought to myself afterwards um, that's the first time I've heard myself saying 'I could actually have done without that'. So that was quite a good thing, that was really, you know, quite amazing…Like um just a shift in what I think…it's like I've always wanted to think like that. Always aspired to kind of think I can use my own thoughts in my head to convince myself I don't need that. If it's embarrassing, negative or for something I'm ashamed of or got used to using as a strategy to cope but not actually very proud of. I think if I can start listening to those thoughts, and attaching myself to those, because it's kind of like 'good' then I would like to see that more, so it might just start something I can build on*
5	2	*Just up a little bit…like I'm up for the battle, like a little bit more up for*

		change. That's the kind of feeling I'm getting that is different from before. Whereas I was just accepting that this is just the way I am and this is how I cope every day and not even giving it a thought. It's injected a little bit of a shift in motivation to change. So in the battle I'm starting to see it as two people. One is sort of starting to get in there and win over the other really big one that's always full force. Does that make any sense?...I think if you drum it into you, like if you're repeating something over and over, it does keep popping back. So it enforces a bit more positive motivation rather than having nothing there and again easily attaching yourself to negative thoughts.

1. Both participants reported that they had noticed an improvement in their ability to restrain impulsive or habitual reactions and flexibly choose to behave or react to a situation in a different way. Participant 1 referred to deciding not to behave negatively and to change her reaction in a way that was consistent with her desired outcome.
2. Participant 2 spoke about deciding to behave proactively by involving herself in a situation and offering help.
3. Participant 2 had also noticed some changes relating to her eating disordered behavior.
4. Participant 2 also said that she had found herself questioning whether she wanted to engage in eating disordered behaviour in a new way.
5. Participant 2 referred to generally feeling more 'up for' change.
6. Participant 2 also referred to 'observing' her thoughts, becoming more aware that she needs to look after herself better, and making healthier choices and she suggested that positive thoughts helped to fill a gap.
7. Participant 2's references to 'observing' her thoughts, controlling her thoughts, letting go of negative thoughts, avoiding overanalysis and resisting negative thoughts suggest that she had noticed a change in the way she was experiencing and managing her thoughts rather than a change in the content of her thoughts.

4.517 Effects on thoughts

Table 29: Quotes regarding effects on thoughts

Point	Participant	Quote
2	2	*For me, personally, I benefitted from situations that arose I would usually attach myself to. Whereas using the affirmations I could just kind of drift back to those and repeat them and it would reassure me and I think I've felt more in control of my thoughts and my reactions…Um yes sometimes I have a habit of overanalysing things or going down a negative route with my thoughts. So sometimes the affirmation's being quite positive, made me*

		think 'no resist those' it's like a battle between the good and the bad and I've kind of liked the opportunity to put forward the affirmations as my little security and it did bring me back up and away from the negative…Positive thoughts, um, looking on the bright side of things, rather than easily falling into the trap of looking at the negative and scaring yourself silly about the world, you know.

1. There appeared to be a particular discrepancy in relation to how participants believed the intervention had impacted upon their thoughts. Participant 1 did not consider using self affirmations had changed her thoughts in any way. She did state, however, that specific aspects of the intervention and research, i.e. the clarification of her personal values and the completion of questionnaires, facilitated self understanding, (see 'Most helpful aspects of the intervention').
2. Participant 2 reported that trust and curiosity had been important in encouraging her to give the intervention a chance. She said she had found self affirmations to be useful in terms of controlling her thoughts, letting go of negative thoughts, avoiding overanalysis and resisting negative thoughts.

4.518 Effects on feelings about oneself

Table 30: Quotes regarding effects on feelings about oneself

Point	Participant	Quote
1	1	*I think in the instance that I let it go with my husband, sometimes I think I felt proud of myself that I just…that I'd done that.*
	2	*Just noticed like looking back thinking 'oh I handled that week a lot better than usual' you know and I think that it maybe is having a positive effect. You know just observing a little bit… But as I kept doing it I kept thinking 'oh pat on the back there, because look at the way you behaved there'*
2	1	*It was cos I think sometimes I felt that I was a skivvy. So at least this way it didn't make me feel like…Oh just somebody that goes around tidying up after everybody else…Maybe a little bit as I think I viewed…you know, just the um, the little things that I do are important. So I suppose that gave me a bit more self worth.*
4	2	*Just a little move towards the positive in general. And a bit more aware of how I need to look after myself a bit more. So it was in a way becoming a bit more friendly with myself, rather than always on the attack and negative, you know.*

1. Both participants referred to feelings of pride and/or praising themselves.
2. Participant 1 also spoke about how recognizing or reframing household chores as an achievement had altered the way she felt about herself.

3. Participant 1 also referred to being more honest with regards to how she felt about herself.
4. Participant 2 made reference to feeling more that she 'deserved' good food when she felt hungry, and to being 'more friendly' towards herself.
5. Participant 2 also suggested that she felt 'good' for using self affirmations and that she felt better able to deal with feelings of intimidation and insecurity.

4.519 Effects on personal relationships

Table 31: Quotes regarding effects on personal relationships

Point	Participant	Quote
1	1	*Only just to maybe not hold a grudge sometimes with him, because I don't tend to hold grudges with anybody else, it would just be with him.*
	2	*I could see a slight improvement in relationships. A bit more lightening up of certain aspects in life… Well…just for instance with my husband I can be quite uptight and we have issues you know that we really need to kind of address. I need to really loosen up and chill out and not be so stressed out and make things better in a relationship. And I think it is helping…He's…he hasn't said anything really. Just by his body language and reactions to me changing it's quite nice, it's quite a positive thing as well.*
2	1	*I think it made me see that if I wasn't, that I don't always have to be strong and make out that the discussions or the arguments don't affect me. So I think it helped my husband see that I was trying to, also show that within the relationship and be a bit more open with him.*
	2	*Just being a bit more sympathetic towards people and trying to not see them as the enemy all the time. I have a tendency to do that. I get a bit defensive and a little bit kind of closed you know, so I think it's helped with breaking through a few barriers there.*

1. Both participants referred to having noticed improvements in their relationships with their husbands. Participant 1 reported that she had noticed a difference in terms of being less 'stubborn' and more able to let go of resentment.
2. Participant 1 referred to experiencing greater openness in her relationship with her husband, and participant 2 had noticed feeling less defended in relationships and an improvement in relationships generally.

4.520 Effects on coping strategies

Table 32: Quotes regarding effects on coping strategies

Point	Participant	Quote
2	2	*Perhaps, for example if I was at work and a situation came up where I might feel intimidated or insecure or whatever the feeling, I would say to myself the affirmation and somehow it would bring me some sort of calmness and found I could better handle the moment. I can sort of drift away from those feelings a little bit by repeating it in my head… It's just like a comforting thing, it's really weird. But I just kind of used it as a little tool to distract me from what I'd normally attach myself to, which could be negative if that makes any sense? [laughs].*

1. Participant 1 reported that she had not noticed any changes in relation to her coping strategies. This contrasts with her answers to previous questions which suggest that she had been coping with stressful situations in a different way.
2. Participant 2 reported that she had drawn on the use of self affirmations in order to handle situations that intimidated her or gave rise to feelings of insecurity, and that using affirmations might bring her calmness, offer a distraction and/or comfort her.

4.521 Effects on achievement

Table 33: Quotes regarding effects on achievement

Point	Participant	Quote
1	1	*Um…when I discussed one of them with Ella, I think it was about, I think I'd completed quite a big pile of ironing which I didn't feel good about…I think then she referred back to the affirmation … so… in hindsight, that I saw that I'd kind of achieved something…Yes. I think before that to me that was just a job, it was…whereas Ella tried to, Ella told me that well you did achieve something and it made you feel good…I looked at them in at least I achieved something rather than it was just a mundane daily routine or job. So I think there, I gave…you know, I felt that I was doing something useful.*
2	2	*Not really but generally because of the outlook being a little bit more positive it's helped in all areas,*

1. Participant 1 found the intervention to be helpful in terms of recognising her achievements in everyday life.
2. Participant 2 did not notice any particular changes in relation to achievement, but more broader benefits.

4.522 Most helpful aspects of the intervention

Table 34: Quotes regarding most helpful aspects of the intervention

Point	Participant	Quote
2	2	*Just repeating it over and over in my head was very helpful to me. It was just reassuring and strengthening. I felt like I was injecting fuel into myself. You know, it was like a bit of a top up of positivity in a way. I felt that if I could say it over and over it will come back again when I need it, so I was kind of using it as a bit of a medicine in a way…It steered me away from other thoughts. While I was doing that I was kind of distracted.*
3	2	*But actually most of the time I felt like they were quite positive and cos I'd sort of chosen them myself, I'd written them out myself and they were relating to maybe what I need in life.*
4	2	*Because since during the last three weeks where I could kind of do things on my own without strictly adhering to trying to stick to the research…I'm kind of making affirmations up as I go or as I feel I need them.*

1. Participant 1 reported that defining her personal values had been one of the most helpful aspects of the intervention in that it helped her to understand herself better and identify where she might make changes. Participant 1 stated that discussing within appointments situations in which affirmations had been applied had been helpful. Participant 1 stated that completing questionnaires had also been helpful in understanding herself better.
2. Participant 2 reported that she had found the repetition of self affirmations helpful, in terms of both preparing herself for future events and as distraction from negative thoughts.
3. Participant 2 liked using personalised affirmations.
4. Participant 2 also stated that she had liked the freedom of making her own affirmations up according to circumstances once the intervention had ended.

4.523 Least helpful aspects of the intervention

Table 35: Quotes regarding least helpful aspects of the intervention

Point	Participant	Quote
1	1	*Probably visualising the affirmations. I think that's 'cos I found it hard to do…I think I just, I do struggle with just visualising and thinking clearly anyway at the minute because most of my thoughts go, are what about my body image. And if they're not about that then they're just about looking after my children and doing my daily routine. So I don't think there's much room in my head to be visualising. If I visualise anything I just visualise the body image that I don't like.*
	2	*Visualising them was quite…I think it was helpful but it's harder. Like just trying to visualise something, but once I did find something to visualise on it was ok. That was slightly more difficult but nothing really unhelpful… as I*

		kept doing it I kept thinking 'oh pat on the back there, because look at the way you behaved there' and I'd use that as my visualisation for the next one. So yes it was something I was building on but at first it was a bit weird and uncomfortable. As anything once you do it over and over it becomes easier.

1. Both participants reported that visualisation had been the least helpful aspect of the intervention.

4.524 Feelings about using self affirmations in future

Table 36: Quotes regarding feelings about using self affirmations in future

Point	Participant	Quote
1	1	*I think I would have to…it's something I would have to learn to do I think. I don't think it would just…I think it would be hard for me to…it's quite hard to explain really. Because this time I had struggled with the visualising them...I think it would be, it would take a lot for me to be able to do it. I think I'd have to have sorted some of my other issues out just because I think that they just take control over my thoughts.*
2	2	*I would definitely use it as a self help tool because I'm finding it beneficial to me. So I think I will and I have been, so I'm going to continue that because it does help really a lot.*

1. Participant 1 said she might possibly consider using self affirmations in future once other issues had been addressed.
2. Participant 2 said that she would continue using self affirmations as a self help tool, and that she would be open to using it in further psychological therapy.

5. DISCUSSION

This chapter begins with a discussion of the main findings in relation to the three focal questions regarding the brief values-based self affirmation intervention that was provided:

- How effective was the intervention in reducing cognitions associated with ED, reducing behaviours associated with BN and enhancing attitude towards change?
- Which of the psychological processes that were measured best account for the impact of the intervention upon cognitions associated with ED, behaviours associated with BN and attitude towards change; processes consistent with Personal Construct Psychotherapy (PCP) or Acceptance and Commitment Therapy (ACT)?
- What was the acceptability of the intervention for participants?

The external validity and generalisability of the findings are considered and the dissemination of the findings reported. The clinical implications of the findings are then explored. The strengths and limitations of the study are discussed. Finally conclusions and suggestions for future research are made.

5.1 Discussion of the Main Findings

5.12 Effectiveness of a brief values-based self-affirmation intervention in reducing cognitions associated with ED, reducing behaviours associated with BN and enhancing attitude towards change

The intervention was associated with some change in both participants' scores on the EDI-III and there were some similarities in the pattern of change across participants. Both participants experienced positive reliable change with regards to their composite scores. For Eating Disorder Risk positive reliable change was indicated at a .95 and .68 levels of confidence for participant 1 and 2 respectively. Both participants' scores also indicated positive reliable change on the Interpersonal Problems composite at a .68 level of confidence. However, other than this, the pattern of change appeared to be different across participants with regards to subscales. Participant 1's scores indicated positive reliable change on Bulimia, Body Dissatisfaction and Personal Alienation subscales and participant 2's on Interpersonal Alienation and Interoceptive Deficits subscales at a .68 level of confidence. This, along with the finding that participant 1 experienced positive reliable change on the Ineffectiveness composite and participant 2 on the Affective Problems composite, suggests that different processes may have contributed to participants' similar positive change on Eating Disorder Risk and Interpersonal Problems composites. It is important to note that, where results indicated that reliable change had occurred, the degree of change was generally insufficient to change the EDI-III classification of scores.

Overall, changes in both participants' scores on EDI-III subscales and composites were small and indicated change in both positive and negative directions. Where reliable change was indicated, consideration of baseline scores often suggested that baseline scores indicated change might be attributable to naturally occurring fluctuations over time rather than the practice of values-based self-affirmations. Participants' pre-treatment scores also appeared generally lower and their post-treatment scores higher than those of a normative BN sample. Again, this suggests that the intervention did not make a particularly strong impact upon EDI-III subscale or composite scores despite participants presenting with relatively low EDI-III scores to begin with.

The positive change in participant 2's Eating Disorder Risk composite score is consistent with her interview responses, which suggested that she had also experienced some positive changes in her eating disordered behaviour, i.e. the degree to which she restricted her eating, and making healthy food choices

when hungry as opposed to denying herself food until she was tired and binged on unhealthy foods. This supports previous research which has found that values-based self-affirmation encouraged participants to make changes to their diet, through increased fruit and vegetable consumption (Epton & Harris, 2008). Participant 1 did not make any reference to perceived changes in relation to eating disordered behaviour. Participants' interview responses here are inconsistent with behavioural measures of BN. Restrictive eating appeared to remain unchanged. However, according to self reported data (which were collected by CEDS thereby making social desirability responses less likely) participant 1 ceased bingeing and purging completely during the course of the intervention, whereas participant 2's bingeing and purging behaviour reduced slightly. The difference between the interview responses of the participants with regards to eating disordered behaviour could possibly be related to participant 2's ability to integrate and embrace the practice of affirmations; in contrast participant 1 struggled to do this.

The positive change in both participants' Interpersonal Problems composite score is consistent with their interview responses, wherein both participants referred to having noticed improvements in their relationships with their husbands and participant 2 referred to improvements in her relationships generally. This supports previous research which has found that values-based self-affirmation reduces thoughts of social rejection, bolsters women with low self-esteem's perception of their partner's acceptance of them, helps people cope with threats to interpersonal aspects of the self, increases relational security and prosocial behavior, helps people react less defensively to relationship threats and lowers the barrier to conflict resolution (Schimel et. al., 2004; Lomore et. al., 2007; Spencer et. al., 2001; Stinson et. al., 2011; Jaremka et. al., 2011; Ward et. al., 2011.

Participants' attitude towards change either improved over the course of treatment or remained high throughout. Given the importance of readiness to change in determining the development of a therapeutic alliance and response to treatment in ED (Treasure et al., 1999), this is encouraging. Participant 1 reported being able to change a habitual response, and having become clearer about what she would like to change; both of which would be expected to have helped maintain her positive attitude towards change. Participant 2 reported that self-affirmation was becoming a habit for her, which may have contributed to improving her attitude towards change (and developing new habits). As mentioned above, participant 2 also said she had already begun to see little changes with regards to eating more healthily and less restrictively and also to her thinking differently during a binge. Participant 2 made references to building on and making small steps, and said explicitly that she felt more 'up for the battle' and 'up for change', all of which suggests greater readiness for, motivation to, and confidence in her ability to change, which may be beneficial in improving outcomes in the main psychological intervention these participants would go on to receive.

Contextualising the results of this study with regards to EDI-III scores is challenging as comparative intervention studies tend to use much larger samples and to report on the statistical significance of results. For example, an 8 session computer assisted CBT intervention (Overcoming Bulimia) which reported a 61% dropout rate for participants with BN and was completed by 40 participants found significant change between pre and post scores on the EDI-III for only one subscale i.e. the Bulimia subscale (Graham & Walton, 2011). With regards to the behavioural data, a study comparing the results of CBT and Interpersonal Psychotherapy (IPT) for BN reported reductions in bingeing and purging of 86% and 84% for CBT and 51% and 50% for IPT at the end of treatment (Agras, Walsh, Fairburn, Wilson & Kraemer, 2000). A study in which Dialectical Behaviour Therapy for BN was offered has found that 28.6% of participants were abstinent from bingeing/purging behaviours at 20 weeks (Safer, Telch & Agras, (2001). It was not possible to locate comparative studies which used the Attitude Towards Change Likert Scales.

5.13 Psychological processes involved in the impact of the intervention on cognitions associated with ED, behaviours associated with BN and attitude towards change

5.131 Psychological processes consistent with theory underpinning Personal Construct Psychotherapy

Whilst theory underpinning neither Personal Construct Psychotherapy nor Acceptance and Commitment Therapy clearly explained the results of the intervention, the pattern of change experienced by participants across measures of psychological processes relevant to BN appeared slightly more in keeping with theory underpinning Personal Construct Psychotherapy. Both participants experienced a reduction in the discrepancy between their self and ideal self. Consistent with the proposition that this was attributable to the content of the intervention, rather than non-specific treatment variables, the reduction in participants' self-ideal discrepancies was greater for affirmed as opposed to non-affirmed values. It is worth mentioning that the mean size of the discrepancy between participants' self and ideal self ratings across all nine constructs (values) pre-treatment was unusually great i.e. 2.8 and 3.9 for participants 1 and 2 respectively. Button (1993) reported a mean discrepancy between self and ideal self ratings for a clinical sample to be 2.3, as opposed to 1.2 for a non-clinical sample. Batty and Hall (1986) reported a mean discrepancy of 1.9 between self and ideal self ratings for a sample of members of two self-help groups for people with anorexic/bulimic-type symptoms. Again, this raises the question of how representative participants in this study were of the BN population generally. However, whilst participants' pre-treatment scores on the EDI-III appeared less severe than those for a normative sample, here participants' self-ideal self discrepancies appeared greater than those of normative samples. Both participants' mean discrepancy between self and ideal self ratings across all constructs reduced i.e. by 1.1 and 1 point for participants 1 and 2 respectively. According to Button's (1993) samples, this would be a

sufficient change to move participants' scores from the mean for the clinical sample to the mean for the non-clinical sample. However, in the present study, post-treatment scores for participants 1 and 2 were 1.9 and 2.9 respectively, i.e. approaching and greater than the mean discrepancy of 2.3 reported by Button (1993) for a clinical sample.

In accordance with Button's (1993) assertion that the self-ideal discrepancy in an individual's constructs provides a measure of self-esteem, participant 2 experienced reliable change in a positive direction on a further measure of self-esteem. A sense of achievement was a feature of both participants' intervention sessions and interviews. Previous research has highlighted the role of values-based affirmations in supporting achievement; (Akira et al., 2010; Cohen et al., 2009). Participant 2 made reference to recognising how well she had handled and behaved in a situation, praising herself and feeling good and giving herself a 'pat on the back'. She spoke about feeling as though she 'deserved' good, healthy food and said she believed that she was becoming 'a better person'. However, where reliable change was indicated it was difficult to ascertain the degree to which changes in scores reflected natural fluctuations. The proposition that the practice of values-based self-affirmations increases self-esteem was unsupported by quantitative data overall. This finding supports those of some previous research (e.g. Stapel & van der Linde, 2011; Armitage & Rowe, 2011; Schmeichel & Martens, 2005; McQueen & Klein, 2006; Sherman & Cohen, 2006). However, it contradicts those of others (e.g. Armitage, 2012; Koole et al., 1999). The findings of the present study in relation to self-ideal discrepancy and self-esteem possibly support the proposition that self-affirmation works by boosting self-images (Steele & Liu, 1983) and/or self-worth (Sherman & Cohen, 2006).

The lack of support for the proposition that values-based self-affirmations would increase self-esteem might suggest that value-based self affirmation is contra-indicated for certain individuals in line with Wood et al. (2009) who suggested that self affirmation improved the mood of those with high self-esteem but worsened the mood of those with low self-esteem. Measures of mood were not used in the present study so results cannot be compared. However, Wood et al.'s study involved the self-affirmation of kindness rather than participants' own personal values. Both participants in the present study had low self-esteem at baseline and experienced positive improvements in this area. However, overall scores did not indicate that increases represented reliable change. Again, it seems possible that the degree to which participants engaged with the intervention and experienced success in their practice of affirmations might have affected the nature of the effects they derived. For example, whereas participant 2 was able to take a step up the hierarchy in terms of the frequency with which she could credibly affirm that she demonstrated her personal values in action, participant 1 took a step down which could have been demoralising for her. It is unclear whether such demoralisation might be particularly likely in the practice

of affirmations, which has been suggested by Vohs et al. (2013), or whether this is a risk associated with all psychological therapies.

Whilst it appeared that both participants had experienced some change in their constructions of themselves and others (in relation to their personal values) over time, there was a difference in the pattern of change across participants. It was indicated that participant 1's construing had become 'tighter' or more rigid over time, whereas participant 2 seemed to be construing with greater flexibility. Greater flexibility in construing has been associated with mental health, including reduced severity of BN (Dimcovic & Winter, 2007) whereas rigidity in construing has been associated with greater psychological disorder. (Dimcovic & Winter, 2007; Winter, 2003). It seems possible that changes in tightness of construing and indeed self-ideal self discrepancy ratings may have been related to naturally occurring fluctuations. In the absence of a baseline repertory grid this possibility cannot be ruled out.

5.132 Psychological processes consistent with theory underpinning Acceptance and Commitment Theory

Self-compassion will be discussed here in line with how the conceptualisation of this process has been linked to those underlying ACT (Neff & Tirch, 2013). Both participants experienced some improvement in scores relating to self-compassion, but neither participant's scores showed evidence of reliable change. Both participants' scores showed slight improvements with regards to body image acceptance in line with the findings of Armitage (2012); however, neither participant reported any perception of this in their interviews. Participants experienced change in opposite directions with regards to psychological flexibility; however, participants scores showed no evidence of reliable change. Again, participants experienced opposite patterns of change with regards to cognitive fusion. When baseline scores were taken into account the possibility that the small changes in participants' scores across these measures were attributable to naturally occurring fluctuations could not be ruled out. Overall, there appeared to be very little quantitative evidence to support the proposition that the pattern of change experienced by participants across measures of psychological processes relevant to BN was in keeping with theory underpinning ACT.

However, participants' interview responses indicated that ACT-consistent processes were clearly a feature of participants' experiences. For example, there seemed to be evidence of self-compassion, with participant 1 'choosing' to have an enjoyable evening, which would suggest that she was taking a slightly kinder stance towards herself. Participant 2 also reported having become 'more friendly with (her)self' and becoming aware of needing to look after herself more. Both participants referred to 'observing' their thoughts, which sounds a lot like the process of cognitive defusion. Both participants also made reference to 'letting go' of arguments, grudges, and thoughts about situations arising in relationships that might give

rise to distress. Participant 1's experience in particular, of choosing to focus upon enjoying herself in the present moment, seemed to involve mindfulness, knowing what matters and taking committed action. There was some indication that participants might be managing their experiences differently, which would also suggest a greater degree of psychological flexibility.

Both participants referred to experiencing the phenomena of 'opening up', becoming more honest about their feelings and reduced defensiveness. This is in accordance with a wealth of evidence that supports the link between self-affirmation and reduced defensiveness (Harris, 2011; McQueen & Klein, 2006; Sherman & Cohen, 2006; Sherman et al., 2006). Reduced defensiveness and increased openness would appear to be consistent with the ACT process of acceptance. The purpose that self affirmations seemed to serve in terms of being an external source of 'strength', which supports the findings of Exeline and Zell (2009) also appeared to support ACT-consistent psychological processes such as 'letting go' of the need to be 'strong', resist and defend, against feelings of weakness and vulnerability, self-consciousness, hunger, and people. However, participant 2 also referred to 'controlling thoughts', 'avoiding over-analysis' and using self affirmations to distract her from upsetting stimuli, 'an escape route out of my own thoughts'. This language is open to interpretation, but could possibly relate to deliberate avoidance of difficult thoughts and feelings which would run counter to ACT aims and objectives.

It also seems possible that the practice of self affirmation has no effect on ACT-consistent processes. Whilst the value-based part of the intervention is an element of ACT interventions, self affirmation is concerned with creating positive change in thoughts and emotions rather than encouraging an acceptance of what is. Cognitive fusion with negative thoughts may simply be replaced by cognitive fusion with positive thoughts. The use of ACT-consistent language by participants in interviews may simply be related to their repeated exposure to ACT outcome measures over time (which may or may not enhance the participants' awareness of problematic psychological processes and prompt change irrespective of the intervention) and social desirability responses (Krefting, 1991). Length of follow-up would enhance the understanding of the relationship between the practice of values-based self affirmation and ACT.

5.14 Acceptability of the intervention

When asked to report specific aspects of the intervention that had been experienced as helpful, there was an emphasis on the positive focus of sessions; recalling positive memories, recognising achievements, rewarding oneself and receiving encouragement. Clarification of personal values and discussion of situations in which self affirmations had been used was also referred to by participant 1. Numerous non-specific aspects were also reported such as clarifying areas to work on, being asked questions and the use

of shared humour. Repeated completion of questionnaires, a feature of the research rather than the intervention, was also considered helpful by participant 1 in relation to facilitating self understanding.

Particular challenges to the use of self affirmations were finding time and remembering to practise, feeling self-conscious, feeling low in mood and believing that self affirmations were not applicable to situations participants found themselves in. Both participants also reported that practising their visualisations had been a particularly difficult aspect of the intervention, which is at odds with Di Simplicio's (2012) assertion that imagining positively may be easier for many individuals than trying to think positively using words.

As Roth and Fonagy (2005) have asserted, attendance or attrition, may be a further indicator of the acceptability of an intervention. Whereas participant 2 attended all of her appointments without any problems, participant 1 missed two of her appointments, which had to be rearranged. Participant 1 attributed her non-attendance to being busy and the demands of looking after her three young children. Therefore, it does seem possible that the challenges related to maintaining participant 1's engagement in the intervention could be attributed to factors other than the intervention itself. This might include the number of questionnaires participants were required to complete and the subsequent effect on the length of sessions. The scheduling of appointments was also more challenging due to the therapist-researcher not being a full-time member of the service. Participation involved around 9 hours of participants' time in addition to the time they would require for travelling to and from appointments on 5 occasions. Whilst every effort was made to arrange appointments at times that suited participants and the meetings were held at CEDS sites, arrangement of appointments at mutually convenient times may have incurred some inconvenience to participants.

Participant 2 said that she was likely to continue using affirmations and that she would be willing to use affirmations again in further psychological interventions. Participant 1 said that she would consider using affirmations again in the future, but believed that she would derive more benefit from them once other psychological issues had been addressed. More specifically, participant 1 referred to a difficulty in recognising her feelings as presenting an obstacle to benefiting from the intervention. This is in accordance with research suggesting that individuals who have ED exhibit high levels of alexithymia, which includes difficulties discriminating between emotional states and bodily sensations and trouble expressing feelings (Jimerson, Wolfe, Franko, Covino, & Sifneos, 1994). How one identifies their emotional states, and regulates these by developing adaptive coping strategies, has been found to discriminate between those with and without BN, (Saarni, 1999), with individuals with BN exhibiting poorer emotional awareness and emotion identification skills (Sim & Zeman, 2004). Symptoms of BN,

such as binge eating, purging, and restricting have in fact been conceptualized by Sim and Zeman (2004) as strategies to regulate emotional states that individuals have difficulty identifying and therefore coping with.

Overall, the intervention appeared more acceptable to participant 2 than participant 1. However, the acceptability of the intervention did not appear to be related to the gains achieved by participants. This raises the question of the degree to which additional unexplored variables may account for the results.

5.2 Methodological Rigour, Validity, Reliability and Generalisability of the Findings

The study's questions, propositions, sources of evidence, logic linking propositions to the data and criteria for interpreting the findings were defined prior to data collection. Every effort has been made to report all evidence fairly and without bias. Evidence regarding potentially confounding variables is presented as recommended by Patton (2002).

The four critical conditions that Yin (2009) recommends to maximise the quality of case study design; namely construct validity, internal validity, external validity and reliability, were considered. With respect to construct validity, multiple sources of evidence were used for the purpose of triangulation. For example, the Rosenberg Self-Esteem Scale, a sub-scale of the EDI-III, analysis of the SELF grid and interviews provided indices of PCP-consistent psychological processes. The Acceptance and Action Questionnaire-II, Body Image Acceptance and Action Questionnaire, Cognitive Fusion Questionnaire, Self Compassion Scale and interviews provided indices of ACT-consistent psychological processes.

In addition to data triangulation, Patton (2002) refers to three other types of triangulation that may be carried out in an evaluative study, all of which were used in the present study. Investigator triangulation was observed by seeking research supervisors' feedback regarding the analysis of interview transcripts. Theory triangulation was obtained by applying more that one theoretical explanation to the same data set. Methodological triangulation was met by collecting data through outcome measures and interviews which might be expected to have enhanced the overall quality of the case study (COSMOS Corporation, 1983).

The construct validity of the study was also enhanced by seeking 'testimonial validity', i.e. research participants were sent their research transcripts and invited to comment on them, which both of them did. An 'analytic audit' was not possible due to time constraints and the fact that interviews were not the sole endeavour but a supplement to the intervention. Pattern matching and time-series analysis were used to address the issue of internal validity. Replication logic was used to answer the question of external validity, i.e. whether the results could be generalised to the two alternative theories. With respect to the

issue of reliability, the manual for the intervention has been provided. A case study database was kept and a chain of evidence was also established, making clear the links between the research questions, data collected and conclusions drawn. The case study database and the chain of evidence contributed both to determining construct validity and increasing the reliability of information in this case study.

Yin (1994a, 1994b, 1997, 1999) highlights four principles that need to be followed in order to increase the likelihood of high-quality analysis. These include attending to all the evidence, addressing or at least acknowledging alternative interpretations, addressing the most significant aspects of the case study and using the investigator's own prior expert knowledge. Again, it is considered that these principles were adhered to. The investigator and also research supervisors' prior expert knowledge were used in the present study. The research field supervisor carried out the interviews with participants and another research supervisor's feedback on the analysis of interview transcripts was sought. The fact that all research supervisors have worked clinically, carried out research within the field of and written about ED was an advantage in this process.

From a methodological perspective, the degree to which generalisations can be made is limited. Whilst falsification of certain propositions has been possible, where it has not, generalisations cannot be made based on the findings of support for propositions. However, the main purpose of this study was to pilot a brief personal values-based self affirmation intervention in treating clients with BN, in order to assess its potential efficacy and better understand what might be the underlying mechanisms of change. This study was exploratory in nature and aimed to provide preliminary qualitative data relating to participants' experiences of receiving this intervention. The intention was that the findings of this study might provide direction for future, more specific research into the use of self-affirmations in psychological interventions. Therefore, the next step might be to carry out a larger randomised controlled trial to address the question of the degree to which naturally occurring fluctuations accounted for these results and increase the degree to which these results might be generalised. This might support the wider use of this brief intervention as an adjunct to standardised interventions to increase efficacy.

5.3 Dissemination

Participants were provided with a summary of the main research findings. The results of the present study were also fed back to the CEDS.

5.4 Clinical Implications

Many of the research findings are promising with regards to personal values-based self affirmations having a role in the treatment of ED and specifically BN. The apparent impact of the intervention upon

participants' eating disorder risk, interpersonal relationships, attitude towards change, discrepancy between self and ideal self, bingeing and purging behaviour is particularly encouraging.

Participants also attributed numerous other positive outcomes to the intervention which would appear to be highly relevant to recovery from an ED. This included 'letting go' of negative thoughts and maintaining a more positive mood state. Greater honesty regarding feelings towards oneself, reduced defensiveness and greater openness in relationships was also reported.

According to interview responses, the practice of self affirmations appeared to have a particular applicability to challenging situations. Participants claimed that self affirmations bolstered their resilience ahead of such events, afforded a coping strategy for managing difficult feelings, and supported them in changing habitual responses so that they could behave more positively, and in line with their personal values. This may be explained by research which has found positive effects of the affirmation of personal values on stress reactivity (Creswell et al., 2005; Zagorski & Pressman, 2011), that positive imagery can reduce emotional distress and cortisol levels (Holmes et al., 2007; Manyande et al., 1995), and that greater self-concept clarity reduces the degree to which individuals are influenced by external self-relevant stimuli (Butzer & Kuiper, 2006).

Of the two participants in this study, participant 2 appeared to take to the intervention with greater ease. One participant variable which may have made a difference is that of faith. Whilst both participants reported religious affiliations, the visualisations used by participant 2, particularly initially, appeared to be more spiritually oriented. This participant also stated in her interview that faith had been an important factor in continuing her self affirmation practice even when she was questioning it, feeling self-conscious, low in mood or when it did not seem relevant to the situations she found herself in.

Participant 2's references to 'curiosity' suggest that this might also be an important component in embracing the intervention. Curiosity might naturally be fostered by the participants' awareness that they were participating in research. Outside of the research context it might be helpful to find other ways of supporting curiosity, such as emphasising that the practice of self affirmations is akin to a behavioural experiment, where the potential outcome of practising self affirmations for each individual is unknown until they attempt it in a consistent manner.

Participant 2, who appeared to experience greater success in engaging with the intervention, chose not to share her practice of self affirmations with anyone outside of the therapeutic relationship, whereas participant 1 told several people about it. This raises the question of whether clients might best be advised to keep their practice to themselves at least initially so that it might be their 'own private mission'

as participant 2 put it, rather than something that is prone to the impact of the words or behaviours of others. It seems possible that feeling self-conscious is more easily overcome if others are not aware of one's practice of self affirmations.

Care was taken to develop credible self affirmations whilst at the same time respecting participants' choice and words. However, it is possible that there is a potential danger with this intervention of collusion with the client's unrealistically high aims, or perfectionism as it is referred to in Fairburn et al.'s (2003) transdiagnostic model of ED. For example, one of participant 1's self affirmations was in relation to loving others 'unconditionally'. This may have contributed to her not believing in this self affirmation and taking a step down in the affirmation hierarchy which might have been experienced as demoralising for her.

In accordance with the stepped care argument, this intervention might be considered within the context of Primary Care. However, participant 1's inclination to use the intervention in service of her ED, i.e. viewing weight loss as an achievement and using visualisation to assist dieting, suggests that the intervention is better suited to being provided within a therapeutic relationship and within a specialist ED Service, at least initially, rather than being handed over as a self help tool.

There are numerous indications that the self affirmations might be personalised even further, beyond the use of personal values. Participant 2, who appeared generally more on board with, and rewarded by, the practice of her self affirmations, seemed to have a natural inclination to adapting the way in which she chose self affirmations, and the self affirmations themselves to the situations she found herself in; 'stuff I thought I needed to know that day'. Both participants highlighted the importance of self affirmations being relevant to the challenging situations that arose in their daily life. This would indicate that the intervention might be enhanced by an initial exploration of the particular situations that clients find challenging. Relevant personal values might then be identified and self affirmations developed for use in specific situations. This might further facilitate clients' use of self affirmations reactively as an alternative experience.

Both participants reported that a particularly challenging aspect of the intervention was the use of visualisations. However, participant 1 stated that recalling positive memories and talking through the use of visualisations had been helpful aspects of therapy, and that when she had practised a visualisation this had evoked positive emotion. This would indicate that the intervention might be improved by spending more time on assisting clients in practising the recollection of positive memories that encapsulate personal values in action, i.e. guided imagery. Another challenging aspect of the intervention, i.e. remembering to

practice self affirmations in the context of a busy lifestyle, raises the question of whether technological aids such as smart phones might be used in order to provide reminders.

One consideration that therapists might need to make is whether clients need to be assessed further in terms of the likelihood of them benefiting from self affirmations, and/or whether clients need to be helped in developing certain skills such as the ability to recognise feelings (reported as an obstacle to the intervention by participant 1) prior to the development of and practice of self affirmations. Another question is when would participants be most ready to use an intervention such as this i.e. whether there is an optimal stage in treatment/recovery. Is there a need to formulate and understand where the negative self-talk has come from before choosing corrective or preferred positive self-talk; then can it be integrated into standard interventions? Or, as with MET (Feld et al., 2001) is values clarification and affirmation best provided at the beginning of treatment, as a means of enhancing motivation, as suggested by Merwin and Wilson (2009)? It seems possible that exploration of the client's values at the beginning of treatment might also encourage the clinician to reflect on their own values and the impact that having different or similar values to the client might have, thereby facilitating the therapeutic process.

5.5 Strengths and Limitations

5.51 Strengths

The researcher positioning and personal values of the therapist-researcher were considered and stated, and care was taken to reduce the potential for social desirability responses. Outcome measures were completed by participants alone and participants were asked to place these in an envelope rather than handing them over to the therapist. Interviews were carried out and behavioural data was collected by a Clinical Psychologist who worked within the CEDS rather than the therapist-researcher.

Earlier changes in outcome measures were looked at against later changes and multiple methods of data collection were utilised. This enabled quantitative outcome measures to be cross referenced with responses to interview questions. Multiple methods of data analysis contributed to exploring the richness of the data and acknowledging the complexity of the phenomenon under investigation.

The study involved the development of an innovative brief psychological intervention for individuals with BN from which participants would appear to have derived some benefits. Whilst this study was uncontrolled and used a very small sample, this ought to be considered within the context of previous trials of adults with BN which have found little or no change in people on waiting lists (Treasure, Schmidt, Troop, Tiller, Todd et al., 1994). It seems entirely possible that a larger sample size might detect significance in the differences on some outcomes pre and post treatment.

The intervention has the potential to be written up, so that clinicians might use it either prior to evidence based treatment, in a similar way to Motivational Enhancement Therapy (MET) which has been advocated within ED (Treasure et al., 1999; Feld et al., 2001), or as an adjunct to standard treatment, as MET has been applied within the treatment of diabetes (Ismail et al., 2010). Given the high drop out rates that have been reported within standard treatment for BN (Blouin et al., 1995; Steel et al., 2000), interventions that begin to address important underlying processes to the disorder may make an important contribution.

5.52 Limitations

5.521 Design

One crucial limitation of case study research is that it cannot control for all of the variables outside the study's scope of interest. For example, participants on antidepressant medication were not excluded, as this is routinely prescribed as a first step in treatment by GPs while people wait for specialist care. It is noted, however, that participant 2 had the dosage of her antidepressant medication increased two weeks following the collection of baseline measures, and that the relationship between this and her ability to embrace the intervention is unknown.

Whilst participants served as their own controls 'any form of treatment in which treatment is absent or deferred acts only to contrast doing something with doing nothing, yielding little information about specific aspects of the intervention that might be helpful', (Kazdin, 1997, in Roth & Fonagy, 2005, p.20). That said, findings (such as the self-ideal self discrepancy being reduced to a greater extent for values that were affirmed) goes some way to indicate that the use of self affirmations afforded an additional benefit to the clarification of personal values. The study could nevertheless have been improved had the contribution of the various components of the treatment been explored. Personal values clarification, writing, visual imagery and verbalising are all considered to be potentially therapeutically beneficial in their own right. Nor was it possible within the time and resource constraints of this study to assess the minimal length of treatment required to achieve a good outcome.

Including a baseline repertory grid measure would also have aided interpretation of the degree to which naturally occurring fluctuations accounted for tightness of construing and self-ideal self discrepancy ratings.

5.522 Measures

Within this study, self-report measures are largely relied on, which are known to be associated with numerous biases such as social desirability and acquiescence (Donaldson & Grant-Vallone, 2002). A measure unsupported by data on reliability or validity, was used to assess attitude towards change. Also, there would appear to be some consensus amongst therapists using ACT that these measures may have their limitations.

This study did not use a measure of mood. A measure of depression such as the Beck Depression Inventory might have been particularly pertinent to the client group. Negative affect has been found to be significantly related to the onset of disordered eating and bulimic symptoms (e.g. Killen, Taylor, Hayward, Haydel, Wilson et al., 1996; Stice et al., 2001), to increase the risk of body image and eating problems (Stice,2002), to be one of the most common triggers of a binge-episode (Polivy et al., 2002), and to contribute to the relatively high rate of drop out in treatment (Steel et al., 2000). Thus this might have had important clinical implications if participants dropped out due to depression. Further, participant 2 reported that she had commenced Prozac (a medication used for both depression and BN) two weeks prior to the collection of pre-intervention measures, which may have assisted her in embracing the intervention.

This study does not use measures that relate to all six of the proposed ACT components or processes. This has been noted as a common omission in studies that explore ACT process (Hayes et al., 2006; Mulkerrin, 2011). However, this study did not directly address the 6 domains in ACT interventions, only specifically addressing one domain (values).

5.523 Therapist

One obvious limitation of this study is that with one therapist and a small number of participants it was impossible to investigate the impact of the variable that is the therapist. As Norcross (2001, 2002) highlights, therapy relationships play an important role in psychotherapeutic outcomes, irrespective of therapeutic 'brand names'. Also, as a Trainee Clinical Psychologist carried out the intervention, it is possible that a greater level of therapist experience would have enhanced the results achieved by this intervention. Horvath and Symonds (1991) make the case that the therapeutic alliance is a common factor across therapies. It would seem likely that a capacity to monitor and maintain the therapeutic alliance develops in line with training and experience.

5.524 Intervention

Having received training according to a broad knowledge base there were possibly times within the intervention when the therapist was tempted to draw upon other theoretical perspectives. Hopefully, this risk was minimised by the use of a protocol.

5.525 Interview

The interviewer's personal values and experience of the therapist-as-researcher were not explored. Yin (2009, p. 108) also provides a reminder that "interviewees' responses are subject to the common problems of bias, poor recall, and poor or inaccurate articulation".

5.526 Analysis

As this was a pilot study, the direction of change anticipated with regards to the propositions was tentative. Thus, the analysis of quantitative data might have been improved by setting pre-established benchmarks, e.g. 'scores on the Rosenberg Self Esteem Scale will increase by at least 5 points'. Further, the way in which the data was interpreted generally may have been influenced by clinical observations.

There appeared to be an important theme running throughout the literature regarding values-based self-affirmation, values, self, self-esteem, theoretical models of ED, PCP and ACT, and also throughout interview responses. This theme related to the interaction between self and others, intra and interpersonal processes. However, unfortunately time constraints did not allow for this to be explored further.

5.527 Conclusions regarding the limitations of the study

These limitations are typical of this kind of research. As Yin (2009, p.3, p.68) asserts, 'using case studies for research purposes remains one of the most challenging of all social science endeavours'…'the demands of a case study on your intellect, ego, and emotions are far greater than those of any other research method'. Specific challenges Yin refers to include the absence of routine procedures, and the need to assimilate large amounts of information through different modalities and to look out for the message in between the lines. Particular challenges experienced within the present study included dealing with the quantity of data that it yielded and the amount of time this required, particularly when carrying out the research in the context of the Doctorate in Clinical Psychology (DClinPsy) with the associated time and resource constraints.

5.6 Conclusions and Suggestions for Future Research

The intervention appeared to be associated with some impact upon behaviours associated with BN. The practice of values-based self affirmations was associated with maintenance or improvement of

participants' attitude towards change. The intervention was also associated with reductions in the discrepancy between participants' self and ideal self ratings, particularly for affirmed, as opposed to non-affirmed, values. Both participants experienced a small improvement in self-esteem, which is in line with the existing evidence base regarding the beneficial effects of self-affirmation, and in contrast to what some research has suggested, i.e. that self-affirmation may be contra-indicated for individuals with initially low self-esteem (Wood et al., 2009). However, increases in self-esteem scores did not indicate that reliable change had occurred for both participants. Further research might seek to identify the intervention specific variables (e.g. whether a prescribed or a personal value in action are affirmed) that mean some affirmation interventions result in detrimental effects for participants with initially low self-esteem and others enhance low self-esteem.

There were mixed results with regards to the effect of the intervention upon flexibility of participants' construing. Further research might explore in greater depth the pattern regarding flexibility/rigidity of construing associated with a self affirmation intervention, taking measurements at baseline, at more frequent intervals and over a longer period of time.

There was also little convincing evidence that reliable change had occurred regarding the stance participants took towards themselves, i.e. measures of self compassion and ACT-consistent processes; body image acceptance, psychological flexibility and cognitive defusion. It is interesting to note that participants' interview responses suggested otherwise, which raises the question of whether some change in ACT-consistent psychological processes may have occurred, despite the lack of direct intervention, and these take longer to become measurable. This question might be answered by research in which follow up measures are taken over a longer period of time.

The acceptability of the intervention appeared to vary somewhat according to participant variables. This suggests a need for greater understanding of the client variables that might predict who could benefit from and/or struggle to use personal affirmations and what might cause some participants' construing to become more flexible and others' more rigid. Given the result of the present study, curiosity, faith, mood, intrusive thoughts such as those related to body image, ability to reflect and recognise feelings, and whether the practice of self affirmations is kept to oneself or shared with others would all appear to be variables to consider.

Both participants were able to identify numerous aspects of the intervention that they had found helpful. Several challenges posed by the intervention that both participants had in common were highlighted, which point to how the intervention might be improved. Relevance of self affirmations to challenging situations is one example of this. Further research might explore the effects of the practice of self

affirmations that have been developed to facilitate coping with specific situations that are challenging for the individual in terms of reducing psychological disorder. Another example was the difficulty participants reported regarding the practice of visualisation. It seems possible that this difficulty might be reduced if self-affirmations were developed from the meanings of the memories participants recalled. It also suggested that any intervention using visualisation for those with EDs might be best suited to therapist led interventions in contrast to self help.

The impact of the intervention upon behaviours associated with BN, attitude towards change and discrepancy between self and ideal self suggest that the practice of values-based self affirmations may well be a useful adjunct to the treatment of ED. The additional benefits of the intervention reported by participants were that it increased personal honesty, reduced defensiveness, enhanced ability to cope with challenging situations, improved mood, greater ability to 'let go' of negative thoughts, and increased resistance of habitual responses in favour of values consistent action. These benefits support the use of personal values-based self affirmations in the treatment of ED and warrant further exploration. The combination of elements in this intervention (affirmations, values and images) makes it impossible to determine which component made the most impact. Therefore, further exploration could be made regarding the contribution of the different components of this intervention, e.g. the differential benefits of using visualisation in addition to/alongside personal values affirmation.

Given the way in which participants' attitude towards change was affected, the impact that the intervention has upon participants' subsequent response to treatment as usual might also be assessed, both in terms of service utilisation, i.e. the length of subsequent treatment, and health benefit, such as the achievement of clients' goals. The existing evidence base suggests that a values-based self-affirmation intervention, such as the one carried out within the present study, might prepare the client for further psychological intervention by increasing openness to the exploration of underlying psychological material that may otherwise be viewed as threatening.

Conversely, it should also be noted that there is also the possibility that this brief intervention negatively impacts upon the effectiveness of subsequent treatment. For example, Vohs et al. (2013) have suggested that positive self-affirmation, if followed by an experience of failure, may lead to individuals internalising the implications of failure, which could result in reduced motivation and, consequently, increase the likelihood of disengagement. It might also be the case that having received a positive psychology intervention participants are no longer willing to return to problem saturated talk and develop an understanding of how their difficulties developed. However, this did not appear to be the case with a MET intervention offered as an adjunct to inpatient treatment, which was associated with longer-term

engagement and motivation and enhanced treatment continuation (Dean et al., 2008). Furthermore, it seems likely that this potential difficulty might be more easily overcome if an experienced therapist offered both interventions.

5.61 Final Conclusion

This study found that the use of a personal values-based self affirmation intervention was associated with reductions in some behaviours associated with BN, enhanced attitude towards change and reduced discrepancy between self and ideal self. There was little convincing evidence that the intervention was associated with a reduction in cognitions associated with ED. There was mixed evidence to suggest that results might be explained by theory underpinning Personal Construct Psychotherapy. A very small degree of change in a positive direction was observed in relation to self-compassion, body image acceptance, psychological flexibility and cognitive fusion. However, scores did not reflect Reliable Change in these processes and so results did not appear to be explained by theory underpinning Acceptance and Commitment Therapy. Participants generally found the intervention to be acceptable. Therefore, results overall indicate that the use of values-based affirmation within the treatment of ED warrants further exploration.

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APPENDICES

Appendix 1. Brief Semi-Structured Interview Schedule

1) Instructions were provided for how to use your self-affirmations, but how did you use them in practice?

2) Did you tell anyone else about your use of self-affirmations? What was their response?

3) What were the challenges you faced in using your self-affirmations?

4) What were the benefits of using your self-affirmations?

5) Did you notice any changes in relation to your:

- Mood?
- Behaviour?
- Thoughts?
- Feelings about yourself?
- Personal relationships?
- Coping strategies?
- Achievement? (work/study/other accomplishments)

6) Which part of the intervention did you find most helpful? (prompt: defining your values? Repeating your affirmations? Identifying your affirmations in practice? Visusalising your affirmations in practice? Etc.)

7) Which part of the intervention did you find least helpful? (prompt: defining your values? Repeating your affirmations? Identifying your affirmations in practice? Visusalising your affirmations in practice? Etc.)

8) How would you feel about using self affirmations in future, either as a self-help tool or as part of a psychological intervention?

Appendix 2. Participant Information Sheet

PARTICIPANT INFORMATION SHEET

A Single Case Design Study Evaluating the Impact of a Values Based Positive Self Affirmations Intervention on Eating Disorder Symptoms in Women with Bulimia Nervosa

Introduction

You are being invited to take part in a research study which is interested in assessing the usefulness of a brief self-affirmation intervention in treating people with bulimia nervosa. Before you decide whether you would like to give consent to take part, please take the time to read the following information which has been written to help you understand why the research is being carried out and what it will involve. Feel free to talk to others about participation in the study if you wish.

Who am I?

My name is Ella Cullen and I will be carrying out the research. I am a trainee clinical psychologist and the research fulfils part of the requirements for my Clinical Psychology training. The study is supervised by David Viljoen who is a Clinical Psychologist within Hertfordshire Community Eating Disorders Service. This research has been approved by an NHS Research Ethics Committee as well as by the Research and Development Department of Hertfordshire Partnership NHS Foundation Trust.

What is the study about?

This research is interested in providing a psychological intervention to people with bulimia nervosa. The intervention involves developing self affirmations with people based upon their own personal values. This study aims to gain further understanding of whether and how such an intervention impacts upon symptoms of bulimia nervosa. It also aims to explore how people with bulimia nervosa experience this kind of intervention.

Why have I been invited?

You are being approached to take part in this study because you are currently on the waiting list for treatment within the Hertfordshire Community Eating Disorders Service. In addition we understand that you are a young woman with a diagnosis of bulimia nervosa. Around 3-6 young women will be invited to participate in this study.

Do I have to take part?

Participation in this study is **completely voluntary**. It is up to you to decide whether or not to take part. If you do decide to take part you will be asked to sign a consent form. If you give consent to take part you still have the right to withdraw from the study at any time. If you decide to withdraw from the study

having taken part, the information already collected as part of the study will be used in the study results. A decision not to take part or withdraw from the study at any time **will not** affect the standard of care you receive from the Hertfordshire Community Eating Disorders Service.

What is involved?

The clinician from the Community Eating Disorders Service who assessed you and provided you with information about the study will contact you by telephone around a week after your assessment. If you agree to take part, a time for us to meet will be arranged. I will go through this information sheet again answering any questions you have, and if you wish to continue with the study I will ask you to sign a consent form to take part. I will write to your GP and referrer to let them know that you are involved in this research. During your participation in the study I will need access to your care records held by Hertfordshire Community Eating Disorders Service. This is in order to obtain contact details for you, your GP and referrer, to record that appointments have taken place and in order to manage risk appropriately.

Participation in this study involves attending 5 appointments at the Hertfordshire Community Eating Disorders Service, Centenary House, Grammar School Walk, Hitchin, SG5 1RL. If you have concerns about attending appointments at this particular location we can look into whether it might be possible to meet at a different clinic within the service.

Participation in this study will last over a duration of 11 weeks in total. Please see the flowchart enclosed for more detailed information regarding what will be required of you if you choose to participate.

Will taking part be confidential?

My work is supervised by David Viljoen, Clinical Psychologist within the Hertfordshire Community Eating Disorders Service. For this reason I will discuss aspects of the research and our work together with him.

Also, as this is a joint project between the University of Hertfordshire and the Hertfordshire Community Eating Disorders Service, aspects of the research and our work together will be discussed with my research supervisors at the University of Hertfordshire.

Information you share over the course of your involvement in the research will be treated as confidential. However, if you disclose any information that suggests you may be risk to either yourself or others, I will be required to pass the information on to other professionals involved in your care.

All information about your participation in this study will be kept confidential. Any information that leaves Hertfordshire Community Eating Disorders Service will have your name removed and replaced with a participant number to ensure confidentiality. The information will be stored in a safe locked location which will only be accessible by the researchers.

If an organisation is used in order to transcribe (write up) interviews, an organisation that works in accordance with NHS confidentiality requirements will be used. Digital recordings of interviews will then be deleted according to the recommended procedure.

What are the benefits of taking part?

You will be receiving a psychological intervention when you would otherwise be on the waiting list receiving no treatment. Previous research indicates that you could benefit psychologically as the result of receiving this intervention. You may experience reduced symptoms of bulimia nervosa. At the very least you are likely to be more aware of your own personal values which could impact positively on other areas of your life. You will become more familiar with the service setting, the journey to and from the service and with psychological interventions. The experience of being interviewed in relation to your experience of the intervention may increase your confidence in providing feedback on the treatment you receive from health care services.

What are the potential difficulties that taking part may cause?

You will be asked to complete quite a few questionnaires. You will also need to attend a number of appointments and spend time travelling to and from appointments. Although unlikely, you might find some aspect of the intervention distressing. If you do become distressed at any time during the study appropriate support will be offered to you. If indicated you would be advised not to proceed with participating in the study.

What if there is a problem?

If you have a concern about any aspect of the study, you can speak to me, Ella Cullen, and I will do my best to answer your questions (tel: 07748680264). If you would prefer to speak to someone who is not involved in the research you may contact the Hertfordshire Community Eating Disorders Service and ask to speak to the clinician who assessed you in order to ask for advice about participating, further details of the study or to express any concerns. You may also contact my clinical supervisor, David Viljoen and/or my principal research supervisor, Dr Saskia Keville (Clinical Psychologist). Their contact details are provided on the next page. If you remain unhappy about the research and wish to complain formally, you can do this through the NHS complaints procedure. The contact is the Patient Advice and Liaison Service. Their number is 01727 804629 and their email address is PALS.Herts@hertspartsft.nhs.uk.

What will happen to the results of the study?

Once your interview has been transcribed (written up) you will be sent a copy and asked to comment upon its accuracy. Once the study is complete, the findings will be written up. If you would like a summary copy of the general findings of the study please let me know and I will send this to you. It is hoped that the study results will be published in a psychological journal. All information about participants will be made anonymous through the use of pseudonyms. My research supervisors will also offer second opinions on whether participants are written about in such a way that participants cannot be identified. However as direct quotes will be used confidentiality cannot be fully guaranteed.

Thank you for your time and consideration in taking part.

Contact Details of the researcher for further information

Ella Cullen, Trainee Clinical Psychologist, University of Hertfordshire
College Lane, Hatfield, Hertfordshire, AL10 9AB.

Email address: ellacullen@hotmail.co.uk
Telephone number; 07748 680264

Contact Details of the principal research supervisor for further information

Dr Saskia Keville, Clinical Psychologist, University of Hertfordshire
College Lane, Hatfield, Hertfordshire, AL10 9AB.

Email address: s.keville@herts.ac.uk
Telephone number: 01707 284232

Contact Details of the clinical supervisor for further information

David Viljoen, Clinical Psychologist, Hertfordshire Community Eating Disorders Service
Centenary House, Grammar School Walk, Hitchin, Hertfordshire, SG5 1JN

Email address: david.viljoen@hertspartsft.nhs.uk
Telephone number: 01462 438175

Appendix 3. Flowchart of Participants' Involvement in this Research

Flowchart of participants' involvement in this research

(Please note that you are free to withdraw from the study at any point if you so wish. Participating, not participating or withdrawing from the study will not affect your treatment by the Community Eating Disorders Service in any way.)

Week 1: Clinician within Community Eating Disorders Service who assessed you asked whether you were interested in receiving information about this research. As you said you were, this information was provided.

↓

Week 2: The Community Eating Disorders Service clinician who assessed you will contact you by telephone and ask whether you are interested in participating. If so, Ella Cullen (Trainee Clinical Psychologist) will contact you in order to arrange an initial appointment.

↓

Week 3: Appointment with Ella Cullen. The details of the research will be explained again and you will be asked for your consent. You will be asked to complete a personal information form and 6 brief questionnaires which are related to eating disorder symptoms, self esteem, body image, thinking, behaviour and compassion. This appointment will last 1 hour.

↓

Week 6: You will be asked to complete the 6 questionnaires mentioned previously. This will be followed by psychological intervention appointment 1 with Ella Cullen. After this you will be asked to complete a brief questionnaire. Altogether this appointment will last for 3 hours. For the following week you will be required to spend 5 minutes each morning completing homework by yourself.

↓

Week 7: Psychological intervention appointment 2 with Ella Cullen. After this you will be asked to complete a brief questionnaire. This appointment will last 1 hour. For the following week you will be required to spend 5 minutes each morning completing homework by yourself.

↓

Week 8: You will be asked to complete the above mentioned 6 questionnaires. This will be followed by psychological intervention appointment 3 with Ella Cullen. After this you will be asked to complete a brief questionnaire. This appointment will last 2 hours. For the following week you will be required to spend 5 minutes each morning completing homework by yourself.

↓

Week 11: Ella Cullen will meet with you to collect and provide some further information. You will then be asked to complete the above mentioned 6 questionnaires. Following this, you will be interviewed by a Clinical Psychologist about your experience of the psychological intervention you received. This appointment will last 2 hours

↓

Within 3 months: you will be sent a copy of your interview transcript and asked to check its accuracy.

Within 6 months: you will be provided with a summary of the general findings of the study.

Appendix 4. Participant Consent Form

CONSENT FORM

Project Title: A Single Case Design Study Evaluating the Impact of a Values Based Positive Self Affirmations Intervention on Eating Disorder Symptoms in Women with Bulimia Nervosa

Researcher: Ella Cullen

Statement by Participant (please initial all boxes)

Participation in the study;

- ○ I confirm that I have read and understand the information sheet for this study. ☐
- ○ I understand what my involvement will entail and any questions have been answered to my satisfaction. ☐
- ○ I understand that my participation is entirely voluntary, that I can withdraw at any time without having to give a reason, and that any information already collected from me will be used for the purpose of the research. ☐
- ○ I understand that I can decline to answer any questions that I am not comfortable with. ☐
- ○ I understand that my involvement in the research will have no impact on the care that I receive. ☐
- ○ I understand that the researcher will have access to my care records held by the Hertfordshire Community Eating Disorders Service in order to obtain contact details, record appointments and be aware of information relating to risk. ☐
- ○ I understand that if I were to disclose any information that would suggest there was risk of harm to myself or other people, the researcher would pass this information to Clinical Psychologist David Viljoen within the Hertfordshire Community Eating Disorders Service. ☐

- ○ Contact information has been provided should I wish to seek further information from the investigator at any time for purposes of clarification. ☐

- ○ I agree to take part in the study ☐

Participant's Name: _____

Participant's Signature: _____ **Date:** _____

Recording the interviews:

- ○ I agree to this interview being audio recorded and understand that these recordings w securely stored and only used for the purposes of the research. ☐

- ○ I agree to these recordings being transcribed (written up) using an organisation who will according to NHS confidentiality requirements . ☐

Participant's Name: _____

Participant's Signature: _____ **Date:** _____

Storage and publication of the study;

- ○ I understand that all information obtained may be shared with the researcher's clinica research supervisors. This information will be treated as confidential and exceptions to have been discussed with me. ☐
- ○ I agree that research data gathered for the study may be published and I am aware th possible precautions will be taken to protect my identity. ☐
- ○ I agree that direct quotes from the research interview may be used in the publication o study and understand that for this reason complete confidentiality cannot be guaranteed. ☐
- ○ I am aware that the audio recordings of the interviews will be deleted according to recommended procedure once they have been transcribed. ☐
- ○ I agree that the transcription (written words) of the interview will be stored in a secure loc at the University of Hertfordshire for 5 years following the research. ☐

Participant's Name: _____

Participant's Signature: _____ **Date:** _____

Statement by Investigator

- I agree that the project and the implications of participation in it, have been appropria ☐ explained to this participant.

- I believe that the consent to participate is informed and that the participant understands ☐ implications of participation.

Investigator's Name: Ella Cullen

Investigator's Signature: _____ **Date:** _____

Appendix 5. Eating Disorders Inventory – III

EDI – 3

A.	Current weight: _____ pounds
B.	Height: _____ feet _____ inches
C.	Highest past weight (excluding pregnancy): _____ pounds How long ago did you reach this weight? _____ months How long did you weight this weight? _____ months
D.	Lowest weight as an adult (or lowest weight as an adolescent if not yet age 18): _____ pounds How long ago did you first reach this weight? _____ months How long did you weigh this weight? _____ months
E.	What weight have you been at for the longest period of time? _____ pounds At what age did you first reach this weight? _____ years old
F.	If you weight has changed a lot over the years, is there a weight that you keep coming back to when you are not dieting? _____ Yes _____ No If yes, what is this weight? _____ pounds At what age did you first reach this weight? _____ years old
G.	What is the most weight you have ever lost? _____ pounds Did you lose this weight on purpose? _____ Yes _____ No What weight did you lose to? _____ pounds At what age did you reach this weight? _____ years old
H.	What do you think your weight would be if you did not consciously try to control your weight? _____ pounds
I.	How much would you like to weigh? _____ pounds
J.	Age at which weight problems began (if any): _____ years old
K.	Father's occupation:
L.	Mother's occupation:

Eating Disorders Inventory – 3

Below you will find a list of statements. The statements ask about your attitudes, feelings, and behaviours. Some of the statements relate to food or eating; other statements ask about your feelings about yourself.

For each item, decide if the item is true about you **ALWAYS (A), USUALLY (U), OFTEN (O), SOMETIMES (S), RARELY (R),** or **NEVER (N).** Please rate how true each statement is for you by writing a letter to the right of each statement.

	STATEMENT	ALWAYS (A)	USUALLY (U)	OFTEN (O)	SOMETIMES (S)	RARELY (R)	NEVER (N)
1	I eat sweets and carbohydrates without feeling nervous.						
2	I think that my stomach is too big.						
3	I wish that I could return to the security of childhood.						
4	I eat when I am upset.						
5	I stuff myself with food.						
6	I wish that I could be younger.						
7	I think about dieting.						
8	I get frightened when my feelings are too strong.						
9	I think that my thighs are too large.						
10	I feel ineffective as a person.						
11	I feel extremely guilty after overeating.						
12	I think that my stomach is just the right size.						

STATEMENT		ALWAYS (A)	USUALLY (U)	OFTEN (O)	SOMETIMES (S)	RARELY (R)	NEVER (N)
13	Only outstanding performance is good enough in my family.						
14	The happiest time in life is when you are a child.						
15	I am open about my feelings.						
16	I am terrified of gaining weight.						
17	I trust others.						
18	I feel alone in the world.						
19	I feel satisfied with the shape of my body.						
20	I feel generally in control of things in my life.						
21	I get confused about what emotion I am feeling.						
22	I would rather be an adult than a child.						
23	I can communicate with others easily.						
24	I wish I were someone else.						
25	I exaggerate or magnify the importance of weight.						
26	I can clearly identify what emotion I am feeling.						
27	I feel inadequate.						
28	I have gone on eating binges where I felt that I could not stop.						

	STATEMENT	ALWAYS (A)	USUALLY (U)	OFTEN (O)	SOMETIMES (S)	RARELY (R)	NEVER (N)
29	As a child, I tried very hard to avoid disappointing my parents and teachers.						
30	I have close relationships.						
31	I like the shape of my buttocks.						
32	I am preoccupied with the desire to be thinner.						
33	I don't know what's going on inside me.						
34	I have trouble expressing my emotions to others.						
35	The demands of adulthood are too great.						
36	I hate being less than best at things.						
37	I feel secure about myself.						
38	I think about bingeing (overeating).						
39	I feel happy that I am not a child anymore.						
40	I get confused as to whether or not I am hungry.						
41	I have a low opinion of myself.						
42	I feel that I can achieve my standards.						
43	My parents have expected excellence of me.						
44	I worry that my feelings will get						

	out of control.						
STATEMENT		**ALWAYS (A)**	**USUALLY (U)**	**OFTEN (O)**	**SOMETIMES (S)**	**RARELY (R)**	**NEVER (N)**
45	I think my hips are too big.						
46	I eat moderately in front of others and stuff myself when they're gone.						
47	I feel bloated after eating a normal meal.						
48	I feel that people are happiest when they are children.						
49	If I gain a pound, I worry that I will keep gaining.						
50	I feel that I am a worthwhile person.						
51	When I am upset, I don't know if I am sad, frightened, or angry.						
52	I feel that I must do things perfectly or not do them at all.						
53	I have the thought of trying to vomit in order to lose weight.						
54	I need to keep people at a certain distance (feel uncomfortable if someone tries to get too close).						
55	I think that my thighs are just the right size.						
56	I feel empty inside (emotionally).						
57	I can talk about personal thoughts or feelings.						
58	The best years of your life are						

	when you become an adult.						
STATEMENT		**ALWAYS (A)**	**USUALLY (U)**	**OFTEN (O)**	**SOMETIMES (S)**	**RARELY (R)**	**NEVER (N)**
59	**I think my buttocks are too large.**						
60	**I have feelings I can't quite identify.**						
61	**I eat or drink in secrecy.**						
62	**I think that my hips are just the right size.**						
63	**I have extremely high goals.**						
64	**When I am upset, I worry that I will start eating.**						
65	**People I really like end up disappointing me.**						
66	**I am ashamed of my human weaknesses.**						
67	**Other people would say that I am emotionally unstable.**						
68	**I would like to be in total control of my bodily urges.**						
69	**I feel relaxed in most group situations.**						
70	**I say things impulsively that I regret having said.**						
71	**I go out of my way to experience pleasure.**						
72	**I have to be careful of my tendency to abuse drugs.**						
73	**I am outgoing with most people.**						

STATEMENT		ALWAYS (A)	USUALLY (U)	OFTEN (O)	SOMETIMES (S)	RARELY (R)	NEVER (N)
74	I feel trapped in relationships.						
75	Self-denial makes me feel stronger spiritually.						
76	People understand my real problems.						
77	I can't get strange thoughts out of my head.						
78	Eating for pleasure is a sign of moral weakness.						
79	I am prone to outbursts of anger or rage.						
80	I feel that people give me the credit I deserve.						
81	I have to be careful of my tendency to abuse alcohol.						
82	I believe that relaxing is simply a waste of time.						
83	Others would say that I get irritated easily.						
84	I feel like I am losing out everywhere.						
85	I experience marked mood shifts.						
86	I am embarrassed by my bodily urges.						
87	I would rather spend time by myself than with others.						
88	Suffering makes you a better person.						

STATEMENT		ALWAYS (A)	USUALLY (U)	OFTEN (O)	SOMETIMES (S)	RARELY (R)	NEVER (N)
89	**I know that people love me.**						
90	**I feel like I must hurt myself or others.**						
91	**I feel that I really know who I am.**						

Appendix 6. Attitude Towards Change Likert Scale

Attitude towards Change Scales

How motivated are you to change?

1	2	4	6	8	10

Not at all **Very**

If you decided to change how confident are you that you would succeed?

1	2	4	6	8	10

Not at all **Very**

How ready are you to change?

1	2	4	6	8	10

Not at all **Very**

Appendix 7. Rosenberg Self-Esteem Scale

Rosenberg's Self-Esteem Scale

Below you will find a list of statements. Please rate how true each statement is for you by ticking a box to the right of each statement. Use the scale below to make your choice.

	STATEMENT	Strongly Agree	Agree	Disagree	Strongly Disagree
1	I feel that I am a person of worth, at least on an equal plane with others.				
2	I feel that I have a number of good qualities.				
3	All in all, I am inclined to feel that I am a failure.				
4	I am able to do things as well as most other people.				
5	I feel I do not have much to be proud of.				
6	I take a positive attitude toward myself.				
7	On the whole, I am satisfied with myself.				
8	I wish I could have more respect for myself.				
9	I certainly feel useless at times.				
10	At times I think I am no good at all.				

Appendix 8. Self-Compassion Scale: Short Form

Self-Compassion Scale

How I typically act towards myself in difficult times...

Please read each statement carefully before answering; using the scale given below indicate, to the right of each item, how often you behave in the stated manner:

Almost never ***Almost always***

1 2 3 4 5

1	**When I fail at something important to me I become consumed by feelings of inadequacy**	
2	**I try to be understanding and patient towards those aspects of my personality I don't like**	
3	**When something painful happens I try to take a balanced view of the situation**	
4	**When I'm feeling down, I tend to feel like most other people are probably happier than I am**	
5	**I try to see my failings as part of the human condition**	
6	**When I'm going through a very hard time, I give myself the caring and tenderness I need**	
7	**When something upsets me I try to keep my emotions in balance**	
8	**When I fail at something that's important to me, I tend to feel alone in my failure**	
9	**When I'm feeling down I tend to obsess and fixate on everything that's wrong**	
10	**When I feel inadequate in some way, I try to remind myself that feelings of inadequacy are shared by most people**	
11	**I'm disapproving and judgemental about my own flaws and inadequacies**	
12	**I'm intolerant and impatient towards those aspects of my personality I don't like**	

Appendix 9. Acceptance and Action Questionnaire

Acceptance and Action Questionnaire-II

Below you will find a list of statements. Please rate how true each statement is for you by circling a number next to it. Use the scale below to make your choice.

	1 never true	**2** very seldom true	**3** seldom true	**4** sometimes true	**5** frequently true	**6** almost always true	**7** always true
1. My painful experiences and memories make it difficult for me to live a life that I would value.	1	2	3	4	5	6	7
2. I'm afraid of my feelings.	1	2	3	4	5	6	7
3. I worry about not being able to control my worries and feelings.	1	2	3	4	5	6	7
4. My painful memories prevent me from having a fulfilling life.	1	2	3	4	5	6	7
5. Emotions cause problems in my life.	1	2	3	4	5	6	7
6. It seems like most people are handling their lives better than I am.	1	2	3	4	5	6	7
7. Worries get in the way of my success.	1	2	3	4	5	6	7

Appendix 10. Body Image Acceptance and Action Questionnaire

Body Image - Acceptance and Action Questionnaire

Below you will find a list of statements. Please rate how true each statement is for you by circling a number next to it. Use the scale below to make your choice.

	1 never true	**2** very seldom true	**3** seldom true	**4** sometimes true	**5** frequently true	**6** almost always true	**7** always true
1. I get on with my life even when I feel bad about my body.	1	2	3	4	5	6	7
2. Worrying about my weight makes it difficult for me to live a life that I value.	1	2	3	4	5	6	7
3. I would gladly sacrifice important things in my life to be able to stop worrying about my weight.	1	2	3	4	5	6	7
4. I care too much about my weight and body shape.	1	2	3	4	5	6	7
5. How I feel about my body has very little to do with the daily choices I make.	1	2	3	4	5	6	7
6. Many things are more important to me than feeling better about my weight.	1	2	3	4	5	6	7
7. There are many things I do to try and stop feeling bad about my body weight and shape.	1	2	3	4	5	6	7

8. I worry about not being able to control bad feelings about my body.	1	2	3	4	5	6	7
9. I do not need to feel better about my body before doing things that are important to me.	1	2	3	4	5	6	7
10. I don't do things that might make me feel fat.	1	2	3	4	5	6	7
11. I shut down when I feel bad about my body shape or weight.	1	2	3	4	5	6	7
12. My worries about my weight do not get in the way of my success.	1	2	3	4	5	6	7
13. I can move toward important goals, even when feeling bad about my body.	1	2	3	4	5	6	7
14. There are things I do to distract myself from thinking about my body shape or size.	1	2	3	4	5	6	7
15. My thoughts and feelings about my body weight and shape must change before I can take important steps in my life.	1	2	3	4	5	6	7
16. My thoughts about my body shape and weight do	1	2	3	4	5	6	7

not interfere with the way I want to live.							
17. I cannot stand feeling fat.	1	2	3	4	5	6	7
18. Worrying about my body takes up too much of my time.	1	2	3	4	5	6	7
19. If I start to feel fat, I try to think about something else.	1	2	3	4	5	6	7
20. Worrying about my weight does not get in my way.	1	2	3	4	5	6	7
21. Before I can make any serious plans, I have to feel better about my body.	1	2	3	4	5	6	7
22. I will have better control over my life if I can control my negative thoughts about my body.	1	2	3	4	5	6	7
23. I avoid putting myself in situations where I might feel bad about my body.	1	2	3	4	5	6	7
24. To control my life, I need to control my weight.	1	2	3	4	5	6	7
25. My worries and fears about my weight are true.	1	2	3	4	5	6	7
26. Feeling fat causes problems in my life.	1	2	3	4	5	6	7

27. I do things to control my weight so I can stop worrying about the way my body looks.	1	2	3	4	5	6	7
28. When I start thinking about the size and shape of my body, it's hard to do anything else.	1	2	3	4	5	6	7
29. My relationships would be better if my body weight and/or shape did not bother me.	1	2	3	4	5	6	7

Appendix 11. Cognitive Fusion Questionnaire

Cognitive Fusion Questionnaire

Below you will find a list of statements. Please rate how true each statement is for you by circling a number next to it. Use the scale below to make your choice.

	1 never true	**2 very seldom true**	**3 seldom true**	**4 sometimes true**	**5 frequently true**	**6 almost always true**	**7 always true**
1. My thoughts cause me distress or emotional pain.	1	2	3	4	5	6	7
2. I tell myself that I shouldn't be thinking the way I am thinking.	1	2	3	4	5	6	7
3. Even when I am having distressing thoughts, I know that they may become less important eventually.	1	2	3	4	5	6	7
4. I find myself preoccupied with the future or the past.	1	2	3	4	5	6	7
5. I make judgements about whether my thoughts are good or bad.	1	2	3	4	5	6	7
6. Even when I am having upsetting thoughts, I can see that those thoughts may not be literally true.	1	2	3	4	5	6	7
7. I get upset with myself for having certain thoughts.	1	2	3	4	5	6	7

8. I feel like my thoughts need to change before I can have a good life.	1	2	3	4	5	6	7
	1 never true	**2 very seldom true**	**3 seldom true**	**4 sometimes true**	**5 frequently true**	**6 almost always true**	**7 always true**
9. I find it easy to view my thoughts from a different perspective.	1	2	3	4	5	6	7
10. I tend to get very entangled in my thoughts.	1	2	3	4	5	6	7
11. I think some of my thoughts are bad or inappropriate.	1	2	3	4	5	6	7
12. I feel upset when I have negative thoughts about myself.	1	2	3	4	5	6	7
13. I get very focused on distressing thoughts.	1	2	3	4	5	6	7
14. It's such a struggle to let go of upsetting thoughts even when I know that letting go would be helpful.	1	2	3	4	5	6	7
15. My thoughts distract me from what I am actually doing.	1	2	3	4	5	6	7
16. I get so caught up in my thoughts that I am unable to do the things that I	1	2	3	4	5	6	7

most want to do.							
17. I over-analyse situations to the point where it's unhelpful to me.	1	2	3	4	5	6	7
	1 never true	**2 very seldom true**	**3 seldom true**	**4 sometimes true**	**5 frequently true**	**6 almost always true**	**7 always true**
18. I can watch my thoughts from a distance without getting caught up in them.	1	2	3	4	5	6	7
19. It's OK to have inconsistent thoughts on the same subject.	1	2	3	4	5	6	7
20. It's possible for me to have negative thoughts about myself and still know what I am an OK person.	1	2	3	4	5	6	7
21. I am able to do what's important in life even when I have upsetting thoughts.	1	2	3	4	5	6	7
22. I struggle with my thoughts.	1	2	3	4	5	6	7
23. I can do difficult things even if my thoughts say they are impossible to do.	1	2	3	4	5	6	7
24. I can be aware of my thoughts without necessarily reacting to them.	1	2	3	4	5	6	7
25. Once I've							

thought about something upsetting it's difficult for me to focus on anything else.	1	2	3	4	5	6	7
	1 never true	**2 very seldom true**	**3 seldom true**	**4 sometimes true**	**5 frequently true**	**6 almost always true**	**7 always true**
26. I need to control the thoughts that come into my head.	1	2	3	4	5	6	7
27. I tend to react very strongly to my thoughts.	1	2	3	4	5	6	7
28. I get so caught up in my thoughts that I forget what I'm actually doing.	1	2	3	4	5	6	7

Appendix 12. Background Information Questionnaire

Background Information Questionnaire

1. What is your age (in years): _____

2. How would you describe your ethnicity? _____

3. How would you describe your religion/spiritual beliefs? _____

4. How would you describe your sexual orientation? _____

5. What is your current marital/relationship status?

    a. Single

    b. In a long-term relationship

    c. In a new relationship

    d. Married/civil partnership

    e. Cohabiting

    f. Widowed

6. What is your level of education? _____

    a. GCSE

    b. A-Level / other college training

    c. Degree

    d. Masters

    e. Doctorate

7. What is your current employment status?

a. Full-time

b. Part-time

c. Unemployed

d. Looking for work

e. Student

f. Other

g. Details:

8. Are you familiar with the concept of 'self affirmation'?

a. Yes

b. No

c. Details:

Appendix 13. Personal Values Questionnaire – II

Personal Values Questionnaire II

Instructions:

Following this instruction sheet, you will find 9 additional pages. Each page includes one of the Values Domains (areas of your life you may find important) listed below, in order.

Values Domains:

1. Family Relationships
2. Friendships/Social Relationships
3. Couples/Romantic Relationships
4. Work/Career
5. Education-Schooling/Personal Growth and Development
6. Recreation/Leisure/Sport
7. Spirituality/Religion
8. Community/Citizenship
9. Health/Physical Well-Being

On each page that follows, please read carefully through the values domain description and write down YOUR values (ways of living and doing things related to that Values Domain that are very important to you) where indicated.

Below each of the values that you write down, you will see a series of 9 questions asking different things about those individual values. Please answer each of these questions by circling the numbers that are true for you, on each page that you list a personal value.

If you have any questions about how to complete this questionnaire, please ask the person who handed them out to you.

Remember: Your name will not be on this questionnaire, so no one will know what values you write down. Because of this, please describe your values as if no one will ever see this worksheet.

Measure developed by J. T. Blackledge, Joseph Ciarrochi, & Ann Bailey.; adapted from the Personal Strivings Measure developed by Kennon Sheldon & colleagues.

Personal Value #1: Family Relationships

Instructions: **If this is an area of your life that is very important to you**, describe the person you would most like to be in your relationships with your parents, siblings, and/or children (do not include Couples/Romantic Relationships). For example, some people who want close relationships with these family members value being caring, supportive, open, honest, kind, and attentive — but you should decide for yourself what kind of person you value being in your family relationships.

Please write down your Family Relationships values here:

_____

_____

_____

_____

Please answer the following questions by circling the number (on the right) that is true for you:

1. How important is this value to you?	1 Not at all important	2 A little bit important	3 Moderately important	4 Quite important	5 Extremely important
2. How committed are you to living this value?	1 Not at all committed	2 Slightly committed	3 Moderately committed	4 Quite committed	5 Extremely committed
3. Right now, would you like to improve your progress on this value?	1 Not at all	2 A little bit	3 Moderately so	4 Quite a bit	5 Extremely so
4. In the last 10 weeks, I have been this successful in living this value:	1 0-20% Successful	2 21-40% Successful	3 41-60% Successful	4 61-80% Successful	5 81-100% Successful

5. I value this because:

a. Other people would be upset with me if these values were not important to me.	1 Strongly Disagree	2 Moderately Disagree	3 Neither Disagree nor Agree	4 Moderately Agree	5 Strongly Agree
b. I would feel guilty or ashamed if these values were not important to me.	1 Strongly Disagree	2 Moderately Disagree	3 Neither Disagree nor Agree	4 Moderately Agree	5 Strongly Agree
c. These values are important to me, whether or not others agree	1 Strongly Disagree	2 Moderately Disagree	3 Neither Disagree nor Agree	4 Moderately Agree	5 Strongly Agree
d. Living consistently with these values makes my life more meaningful	1 Strongly Disagree	2 Moderately Disagree	3 Neither Disagree nor Agree	4 Moderately Agree	5 Strongly Agree
e. I experience fun and enjoyment when I live consistently with these values.	1 Strongly Disagree	2 Moderately Disagree	3 Neither Disagree nor Agree	4 Moderately Agree	5 Strongly Agree

Personal Value #2: Friendships/Social Relationships

Instructions: **If this is an area of your life that is very important to you**, describe the person you would most like to be in your friendships and other social relationships. For example, some people who want close relationships with friends value being caring, supportive, open, honest, kind, and attentive—but you should decide for yourself what kind of person you value being in your friendships.

Please write down your Friendships/Social Relationships values here:

_____

_____

_____

_____

Please answer the following questions by circling the number (on the right) that is true for you:

1. How important is this value to you?	1 Not at all important	2 A little bit important	3 Moderately important	4 Quite important	5 Extremely important
2. How committed are you to living this value?	1 Not at all committed	2 Slightly committed	3 Moderately committed	4 Quite committed	5 Extremely committed
3. Right now, would you like to improve your progress on this value?	1 Not at all	2 A little bit	3 Moderately so	4 Quite a bit	5 Extremely so
4. In the last 10 weeks, I have been this successful in living this value:	1 0-20% Successful	2 21-40% Successful	3 41-60% Successful	4 61-80% Successful	5 81-100% Successful

5. I value this because:

a. Other people would be upset with me if these values were not important to me.	1 Strongly Disagree	2 Moderately Disagree	3 Neither Disagree nor Agree	4 Moderately Agree	5 Strongly Agree
b. I would feel guilty or ashamed if these values were not important to me.	1 Strongly Disagree	2 Moderately Disagree	3 Neither Disagree nor Agree	4 Moderately Agree	5 Strongly Agree
c. These values are important to me, whether or not others agree	1 Strongly Disagree	2 Moderately Disagree	3 Neither Disagree nor Agree	4 Moderately Agree	5 Strongly Agree
d. Living consistently with these values makes my life more meaningful	1 Strongly Disagree	2 Moderately Disagree	3 Neither Disagree nor Agree	4 Moderately Agree	5 Strongly Agree
e. I experience fun and enjoyment when I live consistently with these values.	1 Strongly Disagree	2 Moderately Disagree	3 Neither Disagree nor Agree	4 Moderately Agree	5 Strongly Agree

Personal Value #3: Couples/Romantic Relationships

Instructions: **If this is an area of your life that is very important to you**, describe the person you would most like to be in a romantic relationship. For example, some people who want close romantic relationships value being caring, supportive, open, honest, kind, and attentive—but you should decide for yourself what kind of person you value being in a romantic relationship.

Please write down your Couples/Romantic Relationships values here:

_____

_____

_____

_____

Please answer the following questions by circling the number (on the right) that is true for you:

1. How important is this value to you?	1 Not at all important	2 A little bit important	3 Moderately important	4 Quite important	5 Extremely important
2. How committed are you to living this value?	1 Not at all committed	2 Slightly committed	3 Moderately committed	4 Quite committed	5 Extremely committed
3. Right now, would you like to improve your progress on this value?	1 Not at all	2 A little bit	3 Moderately so	4 Quite a bit	5 Extremely so
4. In the last 10 weeks, I have been this successful in living this value:	1 0-20% Successful	2 21-40% Successful	3 41-60% Successful	4 61-80% Successful	5 81-100% Successful

5. I value this because:

a. Other people would be upset with me if these values were not important to me.	1 Strongly Disagree	2 Moderately Disagree	3 Neither Disagree nor Agree	4 Moderately Agree	5 Strongly Agree
b. I would feel guilty or ashamed if these values were not important to me.	1 Strongly Disagree	2 Moderately Disagree	3 Neither Disagree nor Agree	4 Moderately Agree	5 Strongly Agree
c. These values are important to me, whether or not others agree	1 Strongly Disagree	2 Moderately Disagree	3 Neither Disagree nor Agree	4 Moderately Agree	5 Strongly Agree
d. Living consistently with these values makes my life more meaningful	1 Strongly Disagree	2 Moderately Disagree	3 Neither Disagree nor Agree	4 Moderately Agree	5 Strongly Agree
e. I experience fun and enjoyment when I live consistently with these values.	1 Strongly Disagree	2 Moderately Disagree	3 Neither Disagree nor Agree	4 Moderately Agree	5 Strongly Agree

Personal Value #4: Work/Career

Instructions: **If this is an area of your life that is very important to you**, describe the person you would most like to be in your career or line of work. For example, some people value doing work that allows them to bring their unique talents to bear, work that allows them to express themselves, or work that 'makes a difference' in other people's lives—but you should decide for yourself what kind of person you value being in your line of work.

Please write down your Work/Career values here:

_____

_____

_____

_____

Please answer the following questions by circling the number (on the right) that is true for you:

1. How important is this value to you?	1 Not at all important	2 A little bit important	3 Moderately important	4 Quite important	5 Extremely important
2. How committed are you to living this value?	1 Not at all committed	2 Slightly committed	3 Moderately committed	4 Quite committed	5 Extremely committed
3. Right now, would you like to improve your progress on this value?	1 Not at all	2 A little bit	3 Moderately so	4 Quite a bit	5 Extremely so
4. In the last 10 weeks, I have been this successful in living this value:	1 0-20% Successful	2 21-40% Successful	3 41-60% Successful	4 61-80% Successful	5 81-100% Successful

5. I value this because:

a. Other people would be upset with me if these values were not important to me.	1 Strongly Disagree	2 Moderately Disagree	3 Neither Disagree nor Agree	4 Moderately Agree	5 Strongly Agree
b. I would feel guilty or ashamed if these values were not important to me.	1 Strongly Disagree	2 Moderately Disagree	3 Neither Disagree nor Agree	4 Moderately Agree	5 Strongly Agree
c. These values are important to me, whether or not others agree	1 Strongly Disagree	2 Moderately Disagree	3 Neither Disagree nor Agree	4 Moderately Agree	5 Strongly Agree
d. Living consistently with these values makes my life more meaningful	1 Strongly Disagree	2 Moderately Disagree	3 Neither Disagree nor Agree	4 Moderately Agree	5 Strongly Agree
e. I experience fun and enjoyment when I live consistently with these values.	1 Strongly Disagree	2 Moderately Disagree	3 Neither Disagree nor Agree	4 Moderately Agree	5 Strongly Agree

Personal Value #5: Education-Schooling/Personal Growth & Development

I***nstructions***: **If this is an area of your life that is very important to you**, describe the person you would most like to be with respect to your education and/or personal growth. For example, some people value qualities like being open and receptive to new ideas and perspectives, or making serious and careful considerations of important issues—but you should decide for yourself what kind of person you value being with respect to your education and personal growth.

Please write down your Education-Schooling/Personal Growth & Development values here:

_____

_____

_____

_____

Please answer the following questions by circling the number (on the right) that is true for you:

1. How important is this value to you?	1 Not at all important	2 A little bit important	3 Moderately important	4 Quite important	5 Extremely important
2. How committed are you to living this value?	1 Not at all committed	2 Slightly committed	3 Moderately committed	4 Quite committed	5 Extremely committed
3. Right now, would you like to improve your progress on this value?	1 Not at all	2 A little bit	3 Moderately so	4 Quite a bit	5 Extremely so
4. In the last 10 weeks, I have been this successful in living this value:	1 0-20% Successful	2 21-40% Successful	3 41-60% Successful	4 61-80% Successful	5 81-100% Successful

5. I value this because:

a. Other people would be upset with me if these values were not important to me.	1 Strongly Disagree	2 Moderately Disagree	3 Neither Disagree nor Agree	4 Moderately Agree	5 Strongly Agree
b. I would feel guilty or ashamed if these values were not important to me.	1 Strongly Disagree	2 Moderately Disagree	3 Neither Disagree nor Agree	4 Moderately Agree	5 Strongly Agree
c. These values are important to me, whether or not others agree	1 Strongly Disagree	2 Moderately Disagree	3 Neither Disagree nor Agree	4 Moderately Agree	5 Strongly Agree
d. Living consistently with these values makes my life more meaningful	1 Strongly Disagree	2 Moderately Disagree	3 Neither Disagree nor Agree	4 Moderately Agree	5 Strongly Agree
e. I experience fun and enjoyment when I live consistently with these values.	1 Strongly Disagree	2 Moderately Disagree	3 Neither Disagree nor Agree	4 Moderately Agree	5 Strongly Agree

Personal Value #6: Recreation/Leisure/Sport

Instructions: **If this is an area of your life that is very important to you**, describe the person you would most like to be during recreational, leisure, and or sporting activities. For example, some people value discovering or learning new things (or spending more time with family or friends) during leisure/recreation times, or being active, competitive, and playing together as part of a sports team—but you should decide for yourself what kind of person you value being with respect to recreation, leisure, and sport.

Please write down your Recreation/Leisure values here:

_____

_____

_____

_____

Please answer the following questions by circling the number (on the right) that is true for you:

1. How important is this value to you?	1 Not at all important	2 A little bit important	3 Moderately important	4 Quite important	5 Extremely important
2. How committed are you to living this value?	1 Not at all committed	2 Slightly committed	3 Moderately committed	4 Quite committed	5 Extremely committed
3. Right now, would you like to improve your progress on this value?	1 Not at all	2 A little bit	3 Moderately so	4 Quite a bit	5 Extremely so
4. In the last 10 weeks, I have been this successful in living this value:	1 0-20% Successful	2 21-40% Successful	3 41-60% Successful	4 61-80% Successful	5 81-100% Successful

5. I value this because:

a. Other people would be upset with me if these values were not important to me.	1 Strongly Disagree	2 Moderately Disagree	3 Neither Disagree nor Agree	4 Moderately Agree	5 Strongly Agree
b. I would feel guilty or ashamed if these values were not important to me.	1 Strongly Disagree	2 Moderately Disagree	3 Neither Disagree nor Agree	4 Moderately Agree	5 Strongly Agree
c. These values are important to me, whether or not others agree	1 Strongly Disagree	2 Moderately Disagree	3 Neither Disagree nor Agree	4 Moderately Agree	5 Strongly Agree
d. Living consistently with these values makes my life more meaningful	1 Strongly Disagree	2 Moderately Disagree	3 Neither Disagree nor Agree	4 Moderately Agree	5 Strongly Agree
e. I experience fun and enjoyment when I live consistently with these values.	1 Strongly Disagree	2 Moderately Disagree	3 Neither Disagree nor Agree	4 Moderately Agree	5 Strongly Agree

Personal Value #7: Spirituality/Religion

Instructions: Understand that we are not necessarily referring to organized religion in this section. **If this is an area of your life that is very important to you**, describe the person you would most like to be with respect to your spirituality and/or religion. For example, some people value connecting with nature and/or the people around them, connecting with God, being part of a church, and/or living out a variety of specific religious ideals-- but you should decide for yourself what kind of person you value being with respect to spirituality or religion.

Please write down your Spirituality/Religion values here:

_____

_____

_____

_____

Please answer the following questions by circling the number (on the right) that is true for you:

1. How important is this value to you?	1 Not at all important	2 A little bit important	3 Moderately important	4 Quite important	5 Extremely important
2. How committed are you to living this value?	1 Not at all committed	2 Slightly committed	3 Moderately committed	4 Quite committed	5 Extremely committed
3. Right now, would you like to improve your progress on this value?	1 Not at all	2 A little bit	3 Moderately so	4 Quite a bit	5 Extremely so
4. In the last 10 weeks, I have been this successful in living this value:	1 0-20% Successful	2 21-40% Successful	3 41-60% Successful	4 61-80% Successful	5 81-100% Successful

5. I value this because:

a. Other people would be upset with me if these values were not important to me.	1 Strongly Disagree	2 Moderately Disagree	3 Neither Disagree nor Agree	4 Moderately Agree	5 Strongly Agree
b. I would feel guilty or ashamed if these values were not important to me.	1 Strongly Disagree	2 Moderately Disagree	3 Neither Disagree nor Agree	4 Moderately Agree	5 Strongly Agree
c. These values are important to me, whether or not others agree	1 Strongly Disagree	2 Moderately Disagree	3 Neither Disagree nor Agree	4 Moderately Agree	5 Strongly Agree
d. Living consistently with these values makes my life more meaningful	1 Strongly Disagree	2 Moderately Disagree	3 Neither Disagree nor Agree	4 Moderately Agree	5 Strongly Agree
e. I experience fun and enjoyment when I live consistently with these values.	1 Strongly Disagree	2 Moderately Disagree	3 Neither Disagree nor Agree	4 Moderately Agree	5 Strongly Agree

Personal Value #8: Community/Citizenship

Instructions: **If this is an area of your life that is very important to you**, describe the person you would most like to be with respect to your community and your country. For example, some people value helping others in their community, advancing their political or humanitarian views at a local (or higher) political level, or helping to preserve local places of value-- but you should decide for yourself what kind of person you value being with respect to your community or role as a citizen.

Please write down your Community/Citizenship values here:

_____

_____

_____

_____

Please answer the following questions by circling the number (on the right) that is true for you:

1. How important is this value to you?	1 Not at all important	2 A little bit important	3 Moderately important	4 Quite important	5 Extremely important
2. How committed are you to living this value?	1 Not at all committed	2 Slightly committed	3 Moderately committed	4 Quite committed	5 Extremely committed
3. Right now, would you like to improve your progress on this value?	1 Not at all	2 A little bit	3 Moderately so	4 Quite a bit	5 Extremely so
4. In the last 10 weeks, I have been this successful in living this value:	1 0-20% Successful	2 21-40% Successful	3 41-60% Successful	4 61-80% Successful	5 81-100% Successful

5. I value this because:

a. Other people would be upset with me if these values were not important to me.	1 Strongly Disagree	2 Moderately Disagree	3 Neither Disagree nor Agree	4 Moderately Agree	5 Strongly Agree
b. I would feel guilty or ashamed if these values were not important to me.	1 Strongly Disagree	2 Moderately Disagree	3 Neither Disagree nor Agree	4 Moderately Agree	5 Strongly Agree
c. These values are important to me, whether or not others agree	1 Strongly Disagree	2 Moderately Disagree	3 Neither Disagree nor Agree	4 Moderately Agree	5 Strongly Agree
d. Living consistently with these values makes my life more meaningful	1 Strongly Disagree	2 Moderately Disagree	3 Neither Disagree nor Agree	4 Moderately Agree	5 Strongly Agree
e. I experience fun and enjoyment when I live consistently with these values.	1 Strongly Disagree	2 Moderately Disagree	3 Neither Disagree nor Agree	4 Moderately Agree	5 Strongly Agree

Personal Value #9: Health/Physical Well-Being

Instructions: **If this is an area of your life that is very important to you,** describe the person you would most like to be with respect to your personal health. For example, some people value being active, eating healthy foods, or exercising regularly-- but you should decide for yourself what kind of person you value being with respect to your personal health and physical well-being.

Please write down your Health/Physical Well-Being values here:

_____

_____

_____

_____

Please answer the following questions by circling the number (on the right) that is true for you:

1. How important is this value to you?	1 Not at all important	2 A little bit important	3 Moderately important	4 Quite important	5 Extremely important
2. How committed are you to living this value?	1 Not at all committed	2 Slightly committed	3 Moderately committed	4 Quite committed	5 Extremely committed
3. Right now, would you like to improve your progress on this value?	1 Not at all	2 A little bit	3 Moderately so	4 Quite a bit	5 Extremely so
4. In the last 10 weeks, I have been this successful in living this value:	1 0-20% Successful	2 21-40% Successful	3 41-60% Successful	4 61-80% Successful	5 81-100% Successful

5. I value this because:

a. Other people would be upset with me if these values were not important to me.	1 Strongly Disagree	2 Moderately Disagree	3 Neither Disagree nor Agree	4 Moderately Agree	5 Strongly Agree
b. I would feel guilty or ashamed if these values were not important to me.	1 Strongly Disagree	2 Moderately Disagree	3 Neither Disagree nor Agree	4 Moderately Agree	5 Strongly Agree
c. These values are important to me, whether or not others agree	1 Strongly Disagree	2 Moderately Disagree	3 Neither Disagree nor Agree	4 Moderately Agree	5 Strongly Agree
d. Living consistently with these values makes my life more meaningful	1 Strongly Disagree	2 Moderately Disagree	3 Neither Disagree nor Agree	4 Moderately Agree	5 Strongly Agree
e. I experience fun and enjoyment when I live consistently with these values.	1 Strongly Disagree	2 Moderately Disagree	3 Neither Disagree nor Agree	4 Moderately Agree	5 Strongly Agree

Appendix 14. Helpful Aspects of Therapy Questionnaire

HELPFUL ASPECTS OF THERAPY FORM (H.A.T.) (10/93)

1. Of the events which occurred in this session, which one do you feel was the most **helpful** or **important** for you personally? (By "event" we mean something that happened in the session. It might be something you said or did, or something your therapist said or did.)

2. Please describe what made this event helpful/important and what you got out of it.

3. How helpful was this particular event? Rate it on the following scale. (Put an "X" at the appropriate point; half-point ratings are OK; e.g., 7.5.)

HINDERING <----------				Neutral		----------> HELPFUL		
1	2	3	4	5	6	7	8	9
E	G	M	S		S	M	G	E
X	R	O	L		L	O	R	X
T	E	D	I		I	D	E	T
R	A	E	G		G	E	A	R
E	T	R	H		H	R	T	E
M	L	A	T		T	A	L	M
E	Y	T	L		L	T	Y	E
L		E	Y		Y	E		L
Y		L				L		Y
		Y				Y		

4. About where in the session did this event occur?

5. About how long did the event last?

6. Did anything else particularly **helpful** happen during this session?

YES NO

(a. If yes, please rate how helpful this event was:

____ 6. Slightly helpful
____ 7. Moderately helpful
____ 8. Greatly helpful
____ 9. Extremely helpful

(b. Please describe the event briefly:

7. Did anything happen during the session which might have been **hindering**?

YES NO

(a. If yes, please rate how hindering the event was:

____ 1. Extremely hindering
____ 2. Greatly hindering
____ 3. Moderately hindering
____ 4. Slightly hindering

(b. Please describe this event briefly:

Appendix 15. Test-Retest Reliability Coefficients and Standard Deviations of Pre-Treatment Mean Scores upon which the Reliable Change Index was calculated

Measure	Test-retest reliability	SD of the pre-treatment mean
Rosenberg Self-Esteem Scale	.85	6.81
Self Compassion Scale – Short Form	.93	7.33
Acceptance and Action Questionnaire-II	.81	9.92

Subscale/Composite	Test-retest reliability	SD of the pre-treatment mean
Drive for Thinness	.95	4.9
Bulimia	.94	7.3
Body Dissatisfaction	.95	9.4
Low Self-Esteem	.95	6.0
Personal Alienation	.94	6.1
Interpersonal Insecurity	.94	4.8
Interpersonal Alienation	.98	5.7
Interoceptive Deficits	.93	8.6
Emotional Dysregulation	.93	5.9
Perfectionism	.93	5.9
Asceticism	.86	6.3
Maturity Fears	.89	6.2
Eating Disorder Risk	.98	16.1
Ineffectiveness	.95	11.2
Interpersonal Problems	.98	9.2
Affective Problems	.93	12.8
Overcontrol	.91	10.5
General Psychological Maladjustment	.97	38.5

Appendix 16. De-Briefing Sheet

6th January 2014

Dear _____,

Thank you very much for your participation in this research. I sincerely hope you feel that you have derived some benefit from your participation. Your participation has certainly contributed to the evidence base regarding psychological interventions for people with a diagnosis of bulimia nervosa.

Your involvement in the study has now come to an end. I will be writing to your GP to inform them of this. You will receive a copy of this letter. You remain on the waiting list for treatment within _____ Community Eating Disorders Service and will be contacted by a member of the team within due course.

If you wish to discuss any aspect of the intervention you have received from me with your future therapist/s this is entirely up to you.

A copy of your research transcript will be sent to you in the post for your comments within the next couple of months. If there is anything that you feel is misrepresented in the transcript please feel free to make notes on the transcript and send it back to me. A SAE will be enclosed for this purpose.

It is anticipated that the research you have participated in will be written up by June 2014. If you request it you will receive a summarised version of my dissertation which will include information relating specifically to you as well as general findings from the research overall. If there is any aspect of this information that you wish to provide feedback on means of contacting me to offer this feedback will be provided.

If you have found the use of positive self-affirmations and the exploration of your personal values useful you may be interested in looking up further resources for more information. Such resources are not necessarily psychological texts and may come under a variety of genres including self-help and spirituality. If you do use any such resources you may find it helpful to discuss this with your future therapist/s.

I wish you all the very best for the future.

Yours sincerely,

Ella Cullen

(Trainee Clinical Psychologist, University of Hertfordshire)

Appendix 17. Intervention Manual

Intervention Manual:

Session 1:

- Introduction, clarification of referral pathway, assessment carried out by CEDS and of participant's interest in the intervention.
- Participant asked for any questions regarding the intervention and answers provided.
- Complete **Personal Values Questionnaire.**
    - Instructions: emphasise personal values are values that are important to *you*– about the kind of person you would value being, regardless of whether you are or not. Try not to worry too much about giving the 'right' answer. Try to do this quickly and spontaneously, going with your gut feeling. There is no need to look back and check or compare answers.
    - Read aloud each question (1-9) and write down values. Add to question no. 7 'or beliefs about the meaning of life'
- Identify the 3 values to work on:
    - Look at question 3 (desire to improve) and choose 3 highest
    - If more than 3 look at question 1 (importance) and choose 3 highest.
    - If still more than 3 look at question c (unconcerned by social desirability) and choose 3 highest.
    - If still more than 3 look at question d (meaningful life).
    - Then e (fun and enjoyment).
    - Then b (not about guilt or shame). – would need to reverse score.
- Agree 3 personal values to work on. Record values on **visualisation and hierarchies form**.
- Develop visualisations (memories) of these values in action. Ask questions to encourage them to expand upon their description of this image such as:
    - 'what can you see?'
    - 'can you describe the image/picture/sound/smell to me?',
    - 'where are you in the image?'
    - 'who else is in the image?', 'what are you doing/saying/thinking?'
    - 'what are other people doing/saying/thinking?'
    - 'how do you feel in the image?'
    - 'What does it mean?',
- Record visualisations on visualisation and hierarchies form.
- Explain re personal affirmations – definition and practice.
- Go through hierarchy ratings for each of the 3 values (i.e. frequency with which they demonstrate the value in action):
    - Frequently
    - Often
    - At times

- Occasionally

- Record hierarchy ratings on visualisation and hierarchies form, and affirmations and visualisations on **diary form**.
- Ask them to write their 3 affirmations down on cards (**postcards credit cards & bookmarks**)
- Show **diary** and go through instructions:
    - Shuffle your cards each morning whilst asking what you need to know that day. When you have finished asking this question the card at the top will be your affirmation for the day.
    - Record this affirmation in your diary.
    - Read this affirmation out loud or in your head whilst visualising the affirmation in action. See the key for a reminder of what to visualise.
    - If practical to put the affirmation somewhere you will see it during the day (beside bed/mirror). (Who do you live with?)
    - Is there a part of your morning routine when you can commit to doing this? > record this on the diary.
    - Repeat this affirmation to yourself (in your head or out loud) during the day whenever you remember.
- Give diary, practice affirmation procedure for today and ask to record on form.

Session 2:

- How has the last week been? What have you done? Has it been a typical week?

- How did the last week's task go? (Choosing and recording an affirmation each day, practicing throughout the day with visualisations) Look at the **last week's diary sheet**. (How chose? When practiced? How practiced? – in mind/out loud/in mirror/in response to negative thought/writing? Visualisations? Positive feelings? Carried cards? Any other affirmations? Others response? How felt?)

- Support with problem solving around any difficulties experienced in relation to practicing self affirmations, for example fitting the practice into a routine, trying a different medium such as listening back to audio recordings of themselves saying their self affirmations using headphones.

- Offer encouragement to think of a situation during the last week in which each value in action was demonstrated by them.

- For each value ask them to consider who else might have noticed them embodying a particular value in action, thereby 'thickening' their story and encouraging them to take an 'observer' perspective.

- Record these situations on a **visualisations and hierarchy sheet** and **new diary sheet** and encourage them to use these examples in their visualisations for the following week.

- Ask to consider moving up one rung of their affirmation hierarchy if this feels right for them.

- Record on a visualisations and hierarchy sheet and ask to write affirmations into new diary sheet.

- Write new **affirmation cards** if necessary (if hierarchy ratings have changed).

Session 3:

- How has the last week been? What have you done? Has it been a typical week?

- How did the last week's task go? (Choosing and recording an affirmation each day, practicing throughout the day with visualisations) Look at the **last week's diary sheet**.

- How have you found the intervention overall?

- Continue your self affirmation practice, in whatever form you choose, if you wish, or abandon it if you do not.

Appendix 18. Instructions and Diary Form

Each morning when you _____

- Shuffle your cards whilst asking what you need to know that day. When you have finished asking this question the card at the top will be your affirmation for the day.
- Record this affirmation in your diary below.
- Read your affirmation out loud or in your head whilst visualising the affirmation in action. See key below for a reminder of what to visualise.
- If practical put the affirmation card/bookmark somewhere you will see during the day.
- Repeat this affirmation to yourself (in their head or out loud) during the day whenever you remember.

Personal Values Based Affirmation	Visualisation.....

Day	Personal Values Based Affirmation.....
Monday	
Tuesday	
Wednesday	
Thursday	
Friday	
Saturday	
Sunday	

Appendix 19. Hierarchy and Visualisation Form

Personal Value (construct, domain)	Visualisation of personal value in action	Hierarchy Rating	Appt 1	Appt 2
		Frequently		
		Often		
		Sometimes		
		Occasionally		
		Frequently		
		Often		
		Sometimes		
		Occasionally		
		Frequently		
		Often		
		Sometimes		
		Occasionally		

Appendix 20. NHS Research Ethics Committee Approval Form

NHS
Health Research Authority
NRES Committee East of England - Essex
East of England Rec Office
Victoria House
Capital Park
Fulbourn
Cambridge
CB21 5XB

Telephone: 01223 597656
Facsimile: 01223 597645

21 March 2013

Miss Ella K Cullen
Trainee Clinical Psychologist
Cambridgeshire and Peterborough Mental Health Partnership NHS Trust
The Derwent Centre, Princess Alexandra Hospital
Hamstel Road
Harlow, Essex
CM20 1QX

Dear Miss Cullen

Study title:	**A Single Case Design Study Evaluating the Impact of a Values Based Positive Self Affirmations Intervention on Eating Disorder Symptoms in Women with Bulimia Nervosa**
REC reference:	**13/EE/0039**
IRAS project ID:	**114670**

Thank you for your letter of 04 March 2013, responding to the Committee's request for further information on the above research and submitting revised documentation.

The further information has been considered on behalf of the Committee by the Chair in consultation with another committee member.

We plan to publish your research summary wording for the above study on the NRES website, together with your contact details, unless you expressly withhold permission to do so. Publication will be no earlier than three months from the date of this favourable opinion letter. Should you wish to provide a substitute contact point, require further information, or wish to withhold permission to publish, please contact the Co-ordinator Miss April Saunders, nrescommittee.eastofengland-essex@nhs.net.

Confirmation of ethical opinion

On behalf of the Committee, I am pleased to confirm a favourable ethical opinion for the above research on the basis described in the application form, protocol and supporting documentation as revised, subject to the conditions specified below.

Ethical review of research sites

NHS sites

The favourable opinion applies to all NHS sites taking part in the study, subject to management permission being obtained from the NHS/HSC R&D office prior to the start of the study (see "Conditions of the favourable opinion" below).

Conditions of the favourable opinion

The favourable opinion is subject to the following conditions being met prior to the start of the study.

Management permission or approval must be obtained from each host organisation prior to the start of the study at the site concerned.

Management permission ("R&D approval") should be sought from all NHS organisations involved in the study in accordance with NHS research governance arrangements.

Guidance on applying for NHS permission for research is available in the Integrated Research Application System or at http://www.rdforum.nhs.uk.

Where a NHS organisation's role in the study is limited to identifying and referring potential participants to research sites ("participant identification centre"), guidance should be sought from the R&D office on the information it requires to give permission for this activity.

For non-NHS sites, site management permission should be obtained in accordance with the procedures of the relevant host organisation.

Sponsors are not required to notify the Committee of approvals from host organisations

It is the responsibility of the sponsor to ensure that all the conditions are complied with before the start of the study or its initiation at a particular site (as applicable).

Approved documents

The final list of documents reviewed and approved by the Committee is as follows:

Document	*Version*	*Date*
Covering Letter	Letter to Ms Saunders from Ms Cullen	11 January 2013
Evidence of insurance or indemnity - Certificate of Insurance for University of Hertfordshire and Subsidiary Companies		06 August 2012
GP/Consultant Information Sheets	Letter to GP and Referrer V1	05 November 2012
Interview Schedules/Topic Guides - Brief Semi-Structured Interview Schedule	v1	05 November 2012
Investigator CV	CV for Ms Cullen	05 November 2012

Letter from Sponsor	Letter to Ms Saunders from Professor Senior	09 January 2013
Letter of invitation to participant	1	05 November 2012
Other: CV for Mr David J Viljoen		
Other: CV for Dr Saskia Keville		
Other: De-Briefing Sheet	1	05 November 2012
Other: Protocol Flow Chart	2	04 March 2013
Other: Flowchart of participants' involvement in this research	2	04 March 2013
Other: Letter/form asking for participant's feedback regarding the accuracy of their interview transcript	1	06 March 2013
Participant Consent Form	2	06 March 2013
Participant Information Sheet	2	06 March 2013
Protocol	2	06 March 2013
Questionnaire: Background Information Questionnaire		
Questionnaire: EDI-3	2004	
Questionnaire: Rosenberg's Self-Esteem Scale		
Questionnaire: BI-AAQ		
Questionnaire: Self-Compassion Scale: Short Form		
Questionnaire: Cognitive Fusion Questionnaire		
Questionnaire: Acceptance & Action Questionnaire		
Questionnaire: Personal Values Questionnaire II		
Questionnaire: Helpful Aspects of Therapy Form (HAT)		
Questionnaire: Workbook: Motivational Enhancement Therapy		
REC application	114670/399944/1/566	09 January 2013
Response to Request for Further Information	From Ella Cullen	

Statement of compliance

The Committee is constituted in accordance with the Governance Arrangements for Research Ethics Committees and complies fully with the Standard Operating Procedures for Research Ethics Committees in the UK.

After ethical review

Reporting requirements

The attached document *"After ethical review – guidance for researchers"* gives detailed guidance on reporting requirements for studies with a favourable opinion, including:

- Notifying substantial amendments
- Adding new sites and investigators
- Notification of serious breaches of the protocol
- Progress and safety reports

- Notifying the end of the study

The NRES website also provides guidance on these topics, which is updated in the light of changes in reporting requirements or procedures.

Feedback

You are invited to give your view of the service that you have received from the National Research Ethics Service and the application procedure. If you wish to make your views known please use the feedback form available on the website.

Further information is available at National Research Ethics Service website > After Review

13/EE/0039	**Please quote this number on all correspondence**

We are pleased to welcome researchers and R & D staff at our NRES committee members' training days – see details at http://www.hra.nhs.uk/hra-training/

With the Committee's best wishes for the success of this project.

Yours sincerely

Dr Alan Lamont
Chair
Email:nrescommittee.eastofengland-essex@nhs.net

Enclosures: "After ethical review – guidance for researchers"

Copy to: *Miss Ella K Cullen*
e.cullen2@herts.ac.uk

Dr Tim Gale
t.gale@herts.ac.uk

Jill Hollinshead
j.hollinshead@herts.ac.uk

Appendix 21. Comparison of EDI-III Pre and Post-Treatment Means for a Normative Sample (Garner, 2004) with those of Participants 1 and 2

EDI-III Subscale/Composite	Pre-treatment mean for normative sample	Pre-treatment mean for participants 1 and 2	Post-treatment mean for normative sample	Post-treatment mean for participants 1 and 2
Drive for Thinness	23.6	22.5	11.7	22.0
Bulimia	21.2	18.5	6.0	15.5
Body Dissatisfaction	31.9	35.0	23.8	31.5
Low Self-Esteem	13.9	14.0	9.0	12.0
Personal Alienation	15.2	14.5	8.6	15.0
Interpersonal Insecurity	12.2	13.0	9.5	12.5
Interpersonal Alienation	12.0	6.0	8.5	7.0
Interoceptive Deficits	18.5	13.5	11.5	12.0
Emotional Dysregulation	9.3	5.5	5.2	6.5
Perfectionism	14.1	10.0	11.7	8.5
Asceticism	14.1	15.5	8.9	14.5
Maturity Fears	11.8	8.5	8.6	10.5
Eating Disorder Risk	77.0	76.5	41.9	69.0
Ineffectiveness	29.3	28.5	17.5	27.0
Interpersonal Problems	24.1	19.0	18.0	19.5
Affective Problems	28.4	19.0	16.8	18.5
Overcontrol	28.2	20.5	20.6	23.0
General Psychological Maladjustment	125.6	95.5	82.1	98.5

Appendix 22. EDI-III Subscale and Composite Classifications

Subscale Classifications

Scale	Participant	Baseline	Pre-treatment	Post-treatment	Follow-up
Eating Disorder Risk Scale					
Drive for Thinness					
	1	Typical	Elevated	Typical	Elevated
	2	Typical	Typical	Typical	Typical
Bulimia					
	1	Elevated	Typical	Typical	Typical
	2	Elevated	Elevated	Typical	Elevated
Body Dissatisfaction					
	1	Elevated	Typical	Typical	Elevated
	2	Elevated	Elevated	Typical	Typical
Psychological Scale					
Low Self-Esteem					
	1	Typical	Typical	Low	Typical
	2	Typical	Elevated	Typical	Typical
Personal Alienation					
	1	Typical	Typical	Low	Low
	2	Elevated	Elevated	Elevated	Typical
Interpersonal Insecurity					
	1	Elevated	Typical	Typical	Typical
	2	Elevated	Elevated	Typical	Typical
Interpersonal Alienation					
	1	Low	Low	Low	Low
	2	Typical	Typical	Typical	Typical
Interoceptive Deficits					
	1	Typical	Low	Typical	Typical
	2	Typical	Typical	Typical	Low
Emotional Dysregulation					
	1	Low	Low	Low	Low
	2	Typical	Typical	Typical	Typical
Perfectionism					
	1	Typical	Typical	Typical	Typical
	2	Typical	Low	Low	Low
Asceticism					
	1	Typical	Typical	Low	Low
	2	Elevated	Elevated	Elevated	Elevated
Maturity Fears					
	1	Typical	Typical	Typical	Typical
	2	Typical	Low	Typical	Typical

Composite classifications – Participant 1

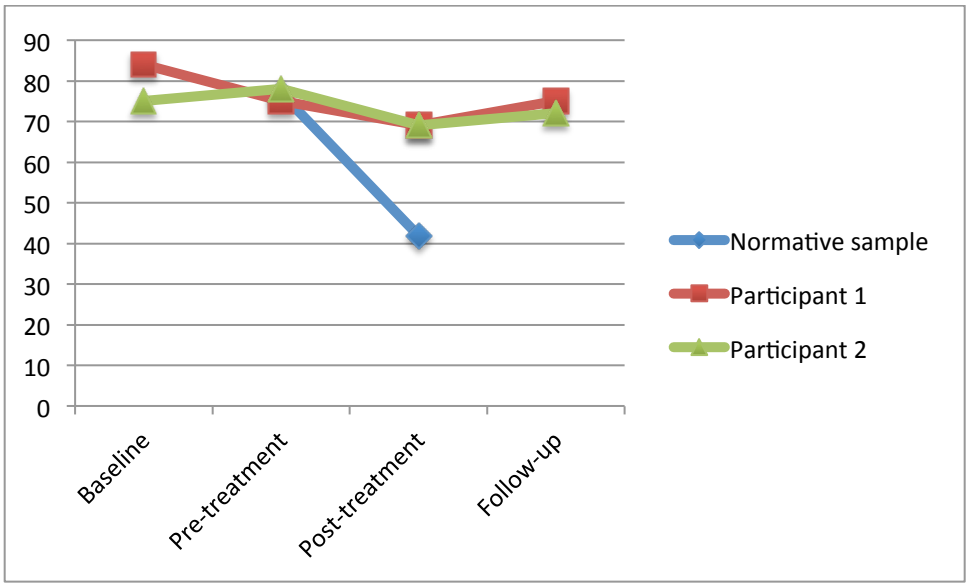
Composite	Baseline	Pre-Treatment	Post-Treatment	Follow-up
Eating Disorder Risk	Elevated	Typical	Typical	Typical
Ineffectiveness	Typical	Low	Low	Low
Interpersonal Problems	Typical	Low	Low	Low
Affective Problems	Low	Low	Low	Low
Overcontrol	Typical	Typical	Low	Low
General Psychological Maladjustment	Elevated	Elevated	Elevated	Elevated

Composite classifications – Participant 2

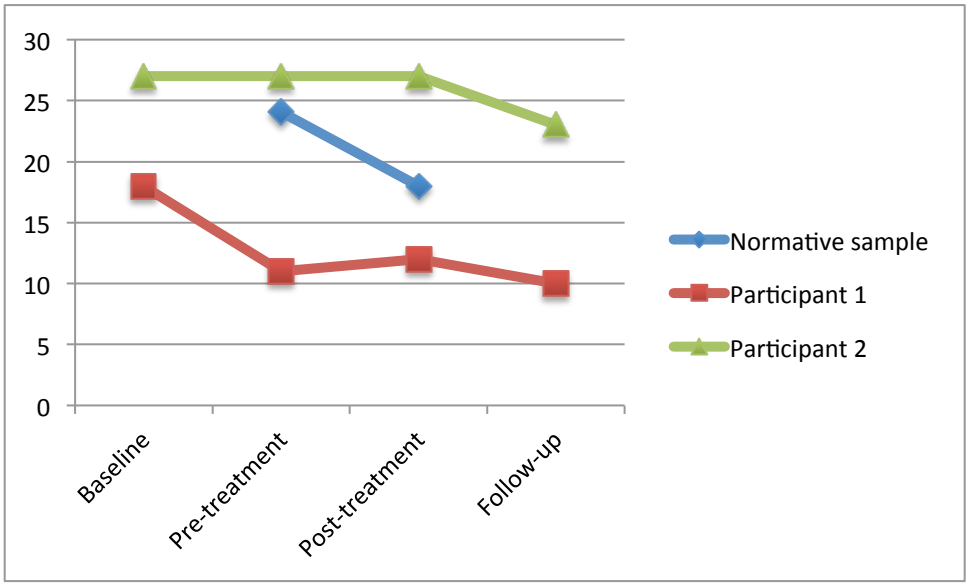
Composite	Baseline	Pre-Treatment	Post-Treatment	Follow-up
Eating Disorder Risk	Typical	Typical	Typical	Typical
Ineffectiveness	Typical	Elevated	Elevated	Typical
Interpersonal Problems	Typical	Typical	Typical	Typical
Affective Problems	Typical	Typical	Typical	Typical
Overcontrol	Typical	Typical	Typical	Typical
General Psychological Maladjustment	Elevated	Elevated	Elevated	Elevated

Appendix 23. Graphs Comparing Scores of Participants 1 and 2 with those of a Normative Sample on EDI-III Composites Eating Disorder Risk and Interpersonal Problems

EDI-III Eating Disorder Risk Composite Comparison of Participants 1 and 2 with a Normative Sample (Garner, 2004)

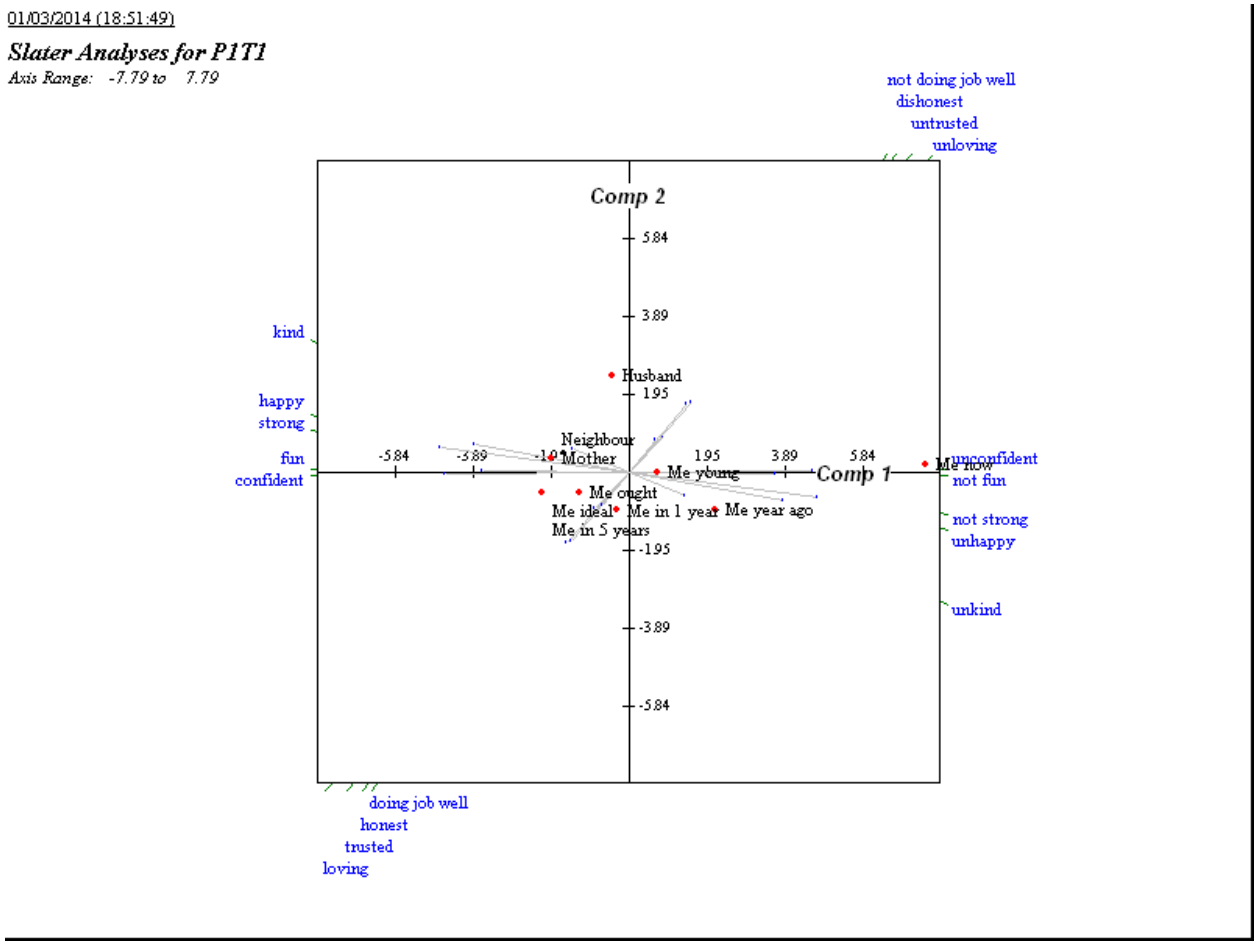


EDI-III Interpersonal Problems Composite Comparison of Participants 1 and 2 with a Normative Sample (Garner, 2004)

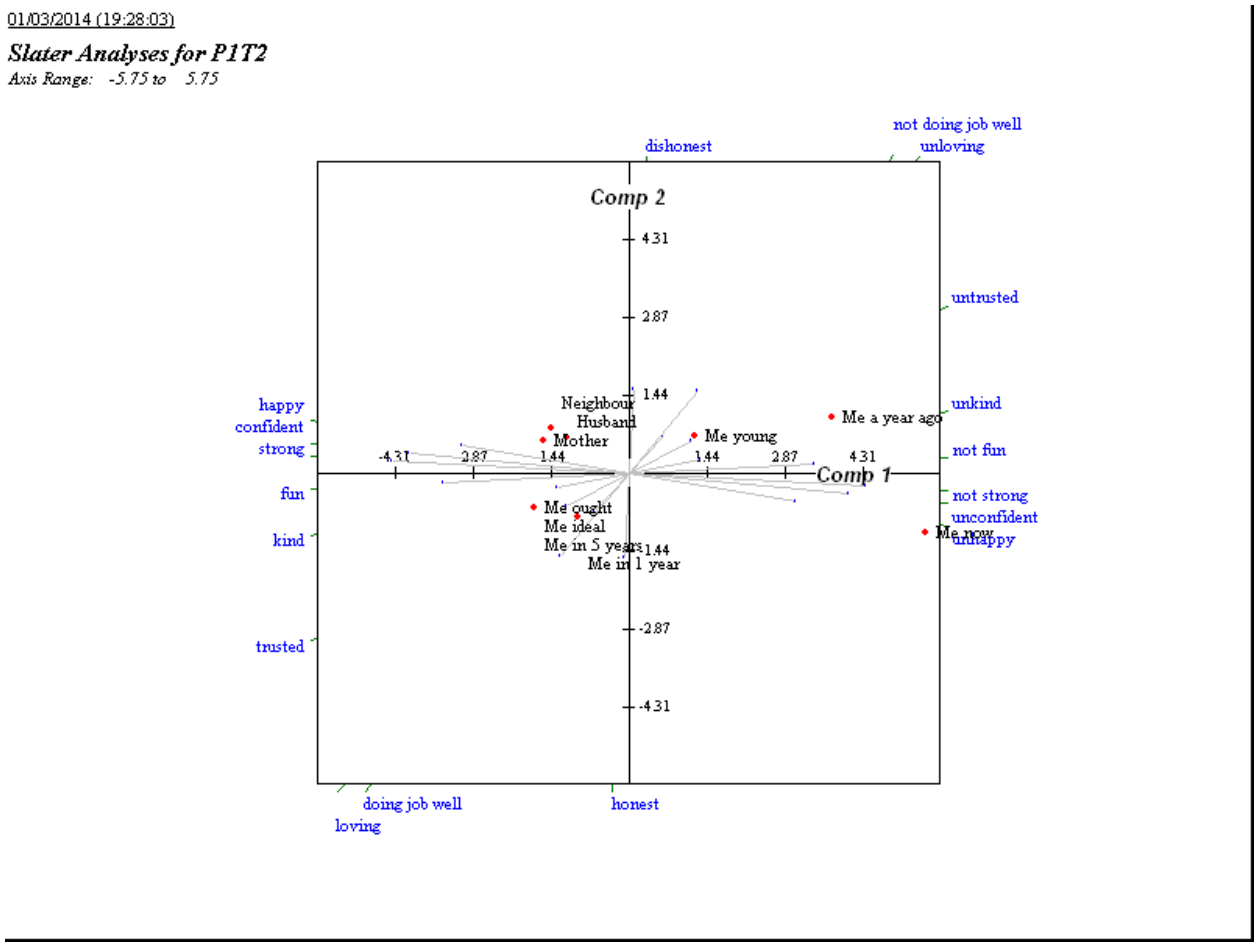


Appendix 24. Principal Components Analysis graphs

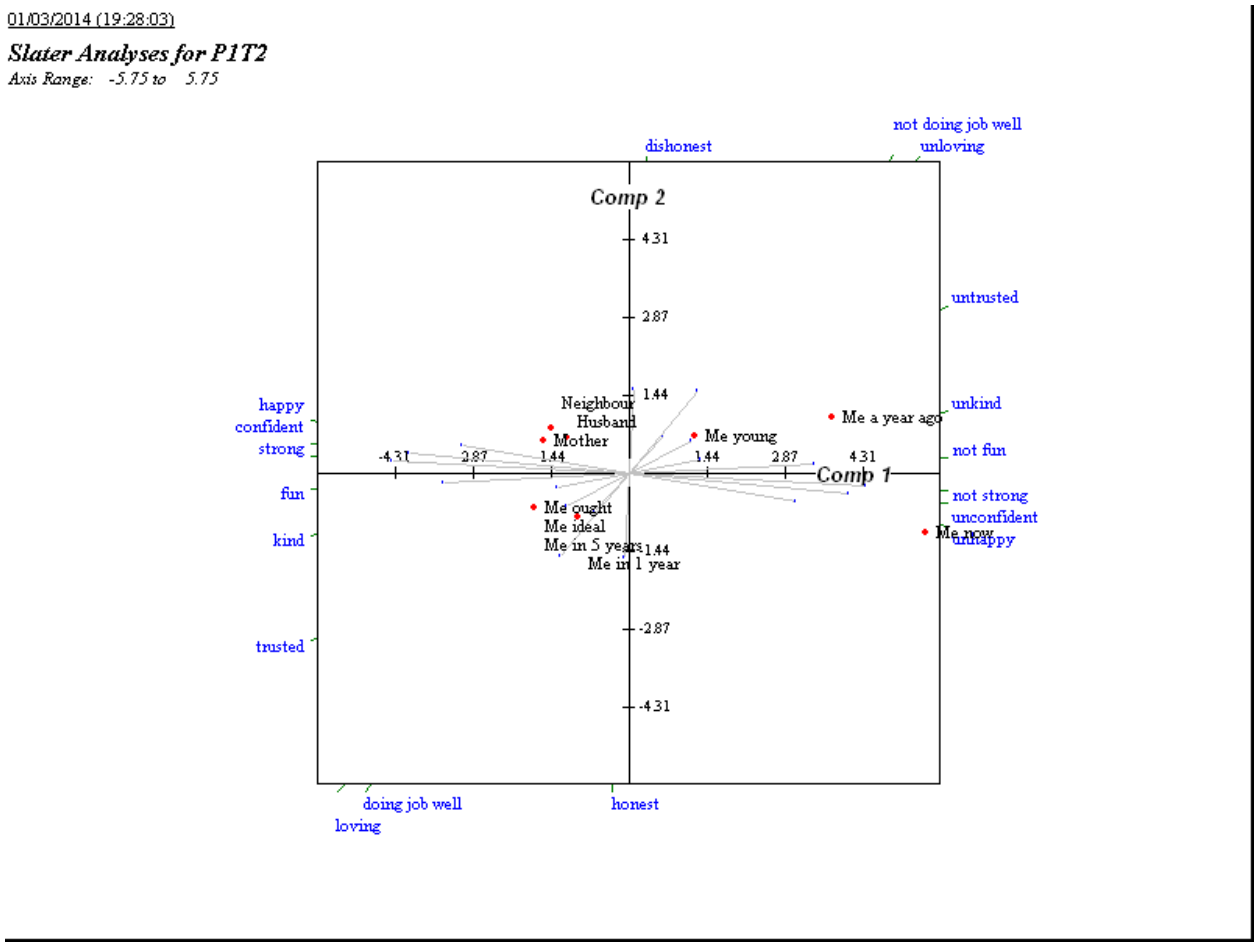
Graph 1: Participant 1 Pre-treatment



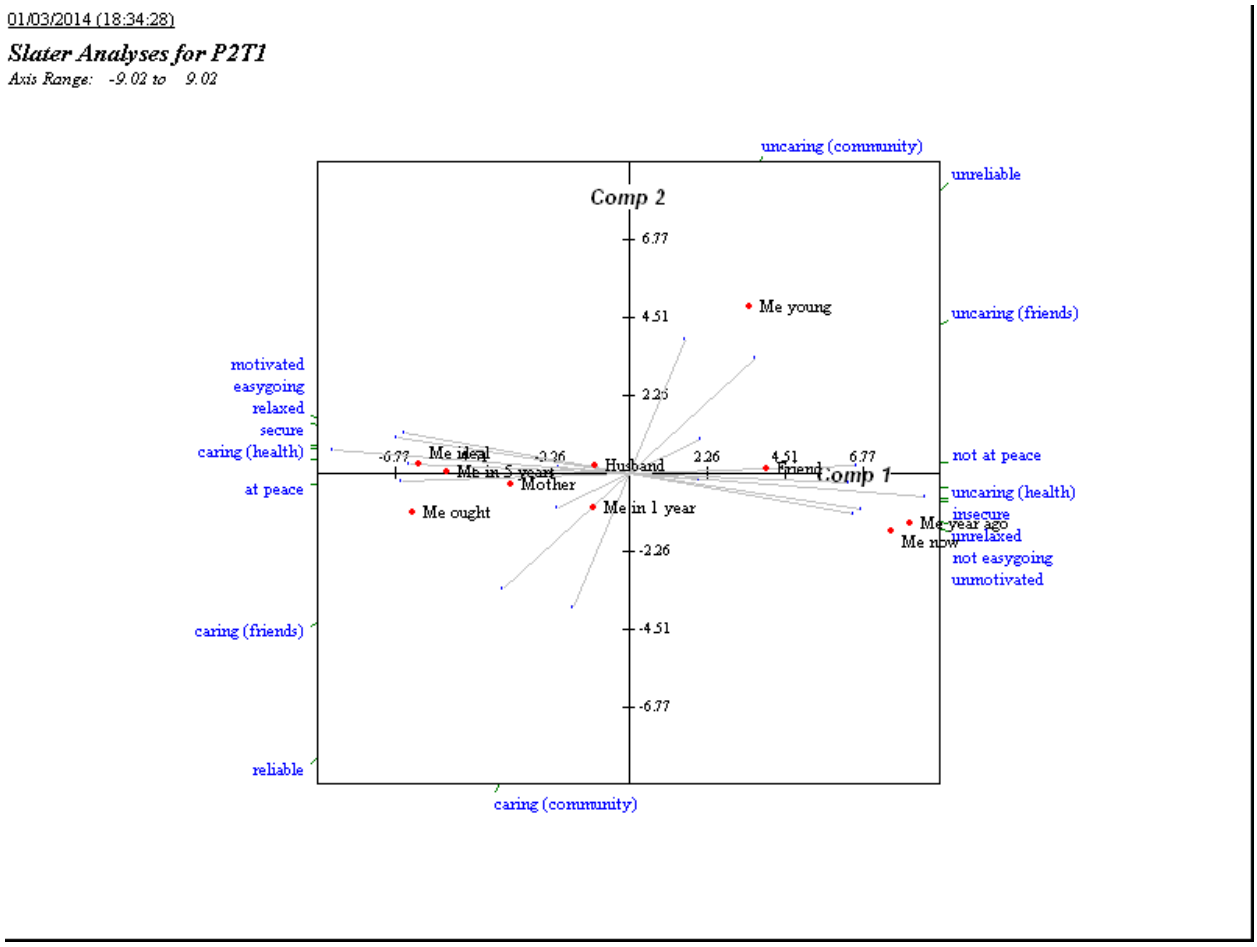
Graph 2: Participant 1 Post-treatment



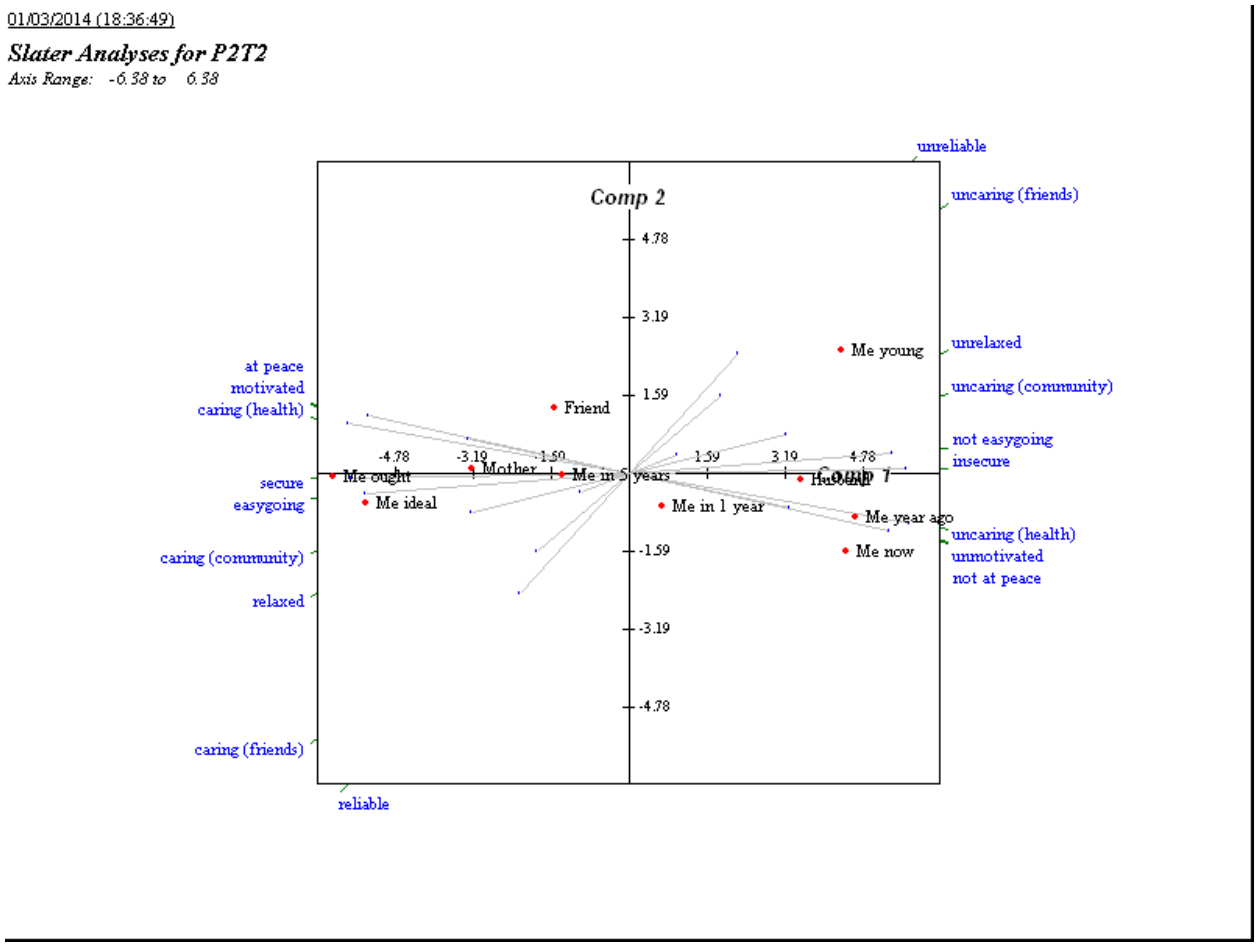
Graph 3: Participant 1 Follow-up



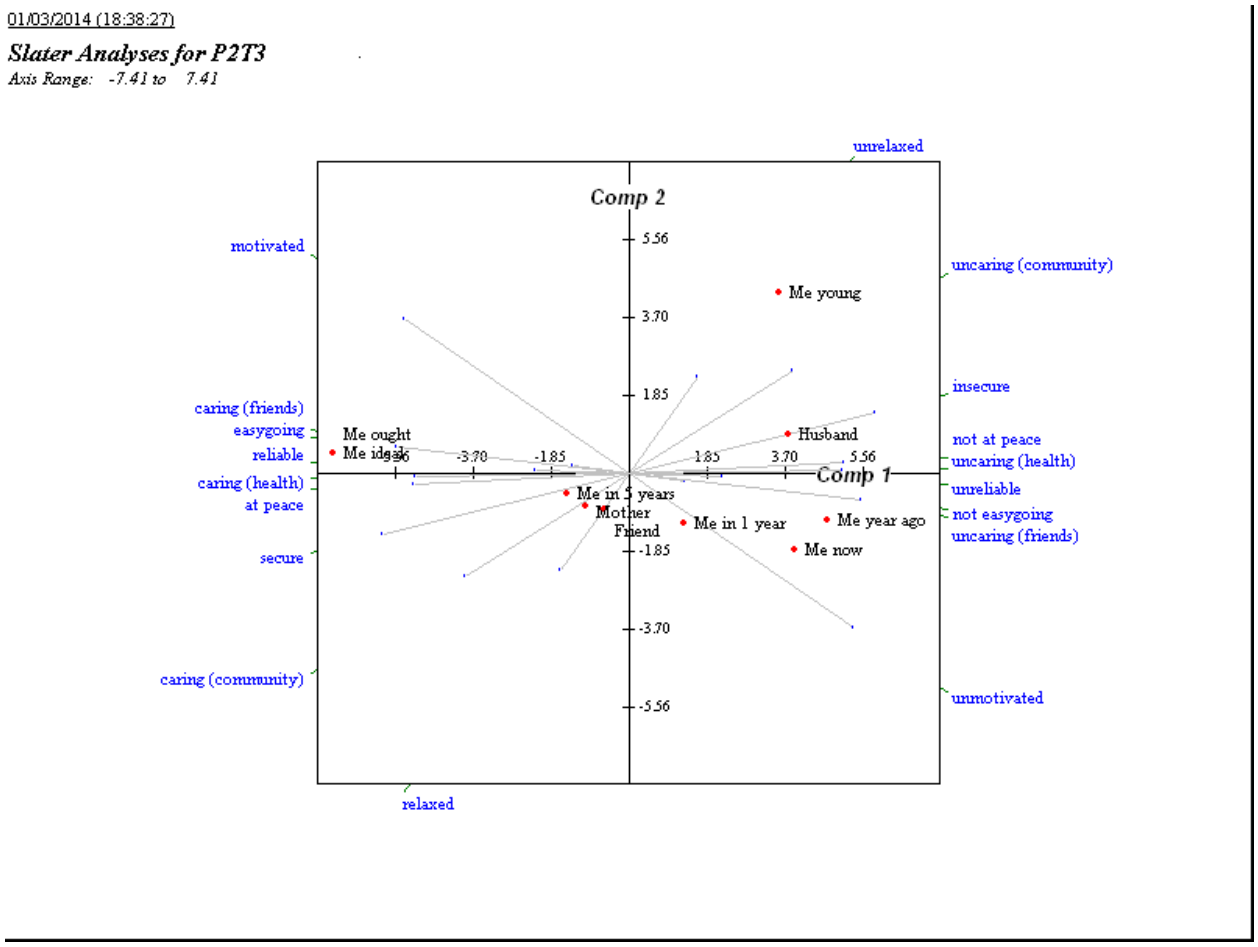
Graph 4: Participant 2 Pre-treatment



Graph 5: Participant 2 Post-treatment



Graph 6: Participant 2 Follow-up



Appendix 25. SELF Repertory Grid

Example of a completed repertory grid (Participant 1, Pre-treatment)

Values,,,,,,,,,,,,,,,	Me as I am now	Me when I was young	Me a year ago	Me in 1 years time	Me in 5 years time	Me as I would ideally like to be	Me as I ought to be	Person 1 Husb-and	Person 2 Moth-er	Person 3 Neigh-bour
Loving (family)	6	6	7	7	7	7	7	6	7	7
Trusted (friends)	5	7	7	7	7	7	7	5	7	7
Honest (husband)	5	6	6	7	7	7	7	5	6	6
Doing job well (work)	6	6	6	7	7	7	7	6	6	6
Confidence (education)	2	5	5	6	7	7	6	6	7	7
Fun (leisure)	3	6	5	6	7	7	6	6	7	7
Happy (religion)	3	6	5	6	7	7	7	7	7	7
Kind (community)	6	6	6	7	7	7	7	7	7	7
Strong (health)	2	6	5	6	7	7	7	7	7	7

Appendix 26. Example of Interview Transcript Coding

Example of interview transcript coding

I = Interviewer P2 = Participant 2

Speaker	Speech	Theme	Sub-theme
I	**Okay. So what do you think were the challenges that you faced using your self affirmations?**		
P2	Um I think at times when I, um… I think um, at times when I felt maybe on a bad day maybe it felt a bit useless or I just didn't believe in them.	**Challenges**	**Finding it hard to use them when feeling low**
P2	But actually most of the time I felt like they were quite positive and cos I'd sort of chosen them myself, I'd written them out myself and they were relating to maybe what I need in life.	**Most helpful**	**Using personalised affirmations**
P2	So yeah, I didn't really see much of a challenge with them.	**Challenges**	**-**
I	**Any other challenges that you could think about using them or yeah…**		
P2	Sometimes maybe in a busy lifestyle just finding time to remember to do it, um…	**Challenges**	**Finding a time to do them**
I	**So how did you do that, did you do that…did you use them when you remembered or did you kind of set time aside every day.**		
P2	Just when I remembered really and at times when I felt anxious about something or in a situation where I would normally not know how to cope or react. Sometimes I've used them to kind of talk myself into…	**How used them in practice**	**Reactively – as a coping strategy**
I	**So would you kind of repeat it to yourself or?**		
P2	Yes. Quietly in my head, silently in my mind.	**How used them in practice**	**Silently**
I	**Can you give me, like an example please?**		
P2	Perhaps, for example if I was at work and a situation came up where I might feel intimidated or insecure or whatever the feeling, I would say to myself the affirmation and somehow it would bring me some sort of calmness and found I could better handle the moment. I can sort of drift away from those feelings a little bit by repeating it in my head. Another example, I remember walking in a forest. As I'm walking I can be a bit more out-loudish, so I can say things out loud and if I might have seen something that I didn't like for example a dead animal, something that I care about, I would say an affirmation that, again, would comfort me in the knowledge that it's nature it's ok. It's just like a	**How used them in practice**	**Reactively – as a coping strategy**

	comforting thing, it's really weird. But just kind of used it as a little tool to distract me from what I'd normally attach myself to which could be negative if that makes any sense? [laughs].		
I	**Okay. Any other challenges do you think, do you think it would be a challenge for somebody to use it?**		
P2	I think literally it's just timing and remembering to use it and sticking to the reminders.	**Challenges**	**Remembering to repeat affirmations**
I	**Do you think it's become a habit for you or not.**		
P2	Yes it has actually, it's starting to become a habit.	**Behaviour**	**Self affirmation becoming a habit**
	Because since during the last three weeks where I could kind of do things on my own without strictly adhering to trying to stick to the research…I'm kind of making affirmations up as I go… as I feel I need them. Like maybe today I feel like I need this or that. Or that feels right for me today, and I'm happy with this.	**Most helpful**	**Making own affirmations up according to circumstances**
P2	Yes, it has become a bit of a habit. Mmm. But in a good way.	**Behaviour**	**Self affirmation becoming a habit**
I	**Okay. But I assume it takes time for a habit to kind of become…to form.**		
P2	To form, yes. Definitely. Because there are days where I was not thinking and completely forgetting about it and I'd think 'oh gosh now I didn't do that yesterday' and 'I must do one today' and I can feel myself sort of slipping a little bit.	**How used them in practice**	**Did not use them**
P2	Yes…it's a nice feeling of talking to yourself in a positive way rather than letting the day go ahead and life happen and reacting to things negatively. It's a little bit more kind of… 'ready for the day' the start of bracing yourself to face challenges rather than just to react as and when they come along. For me anyway.	**Benefits**	**Proactive preparation for the day ahead**