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# An Exploration of Mechanisms of Change in Compassion Focused Therapy Groups:

# A Pilot Study in a College Counseling Center Population

Jennifer Lynn Jensen

A dissertation submitted to the faculty of
Brigham Young University
in partial fulfillment of the requirements for the degree of

Doctor of Philosophy

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ABSTRACT

An Exploration of Mechanisms of Change in Compassion Focused Therapy Groups:
A Pilot Study in a College Counseling Center Population

Jennifer Lynn Jensen
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Doctor of Philosophy

**Objectives.** This study explored mechanisms of change for Compassion Focused Therapy (CFT) groups. The feasibility and acceptability of a new group therapy protocol were assessed in a college counseling center population.

**Method.** Seventy-five participants engaged in eight transdiagnostic CFT groups. Group CFT consisted of 12 weekly sessions. Participants completed measures of fears of compassion, flows of compassion, self-reassurance, self-criticism, shame, and psychiatric distress at pre, mid, and post time points. Significant and reliable change was assessed. Potential mechanisms of change were examined using correlations. Self-report feasibility and acceptability data were collected from therapists and participants respectively.

**Results.** Significant and reliable change was found for fears of self-compassion, fears of compassion from others, fears of compassion to others, self-compassion, compassion from others, self-reassurance, self-criticism, shame, and psychological distress. Improvements in fears and flows of compassion predicted improvements in self-reassurance, self-criticism, shame, and psychiatric distress. The protocol was judged to be feasible and acceptable.

**Conclusion.** The new CFT group protocol appears to be feasible, acceptable, and effective in a transdiagnostic college counseling center population. The identified mechanisms of change support the theory of CFT that transdiagnostic pathological constructs of self-criticism and shame can be decreased by decreasing fears and increasing flows of compassion.

Keywords: compassion focused therapy, CFT, group therapy, college counseling center

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# An Exploration of Mechanisms of Change in Compassion Focused Therapy Groups: A Pilot Study in a College Counseling Center Population

## Compassion

Intentional cultivation of compassion has been an important part of Eastern cultures for centuries, but it has only recently begun to be widely studied in empirical contexts (Gilbert, 2014; Singer & Bolz, 2013). Compassion is typically described as a multidimensional construct including elements such as awareness, affect, motivation, and action. Strauss and colleagues (2016) recently performed a review of the literature and suggested a five-part definition: (1) recognizing suffering (awareness); (2) understanding the universality of suffering in human experience; (3) feeling empathy for the person suffering and connecting with the distress (emotional resonance); (4) tolerating uncomfortable feelings aroused in response to the other's suffering; and (5) motivation to act or action to alleviate suffering. Paul Gilbert, developer of Compassion Focused Therapy (CFT) uses the definition given by the Dalai Lama (2001) who defined compassion as a sensitivity to suffering in ourselves and others with a deep motivation and commitment to prevent and alleviate it (Gilbert, 2014). Additionally, compassion can be broken down into three subcategories based on the giver and receiver and the direction the compassion flows: compassion directed towards others in distress, compassion received from others while in distress, and compassion for self when in distress (Gilbert 2009). There is also research to suggest that the ability to receive compassion from others and the ability to give compassion to self are correlated (Gilbert, McEwan, Matos, & Rivis, 2011).

## Compassion Based Treatments

Research on compassion has found a number of benefits and positive associations, such as positive correlations with mental health and emotion regulation (e.g. MacBeth & Gumley,

2012) and positive interpersonal and social relationships (e.g., Yarnell & Neff, 2013). Not surprisingly, a number of different compassion-based treatments have been created in the past few decades. Kirby (2016) identified six current empirically supported interventions that focus on the cultivation of compassion: Compassion-Focused Therapy (Gilbert, 2014); Mindful Self-Compassion (Neff & Germer, 2013); Compassion Cultivation Training (Jazaieri et al., 2013); Cognitively Based Compassion Training (Pace et al., 2009); Cultivating Emotional Balance (Kemeny et al., 2012); and Compassion and Loving-Kindness Meditations (e.g., Hoffmann, Grossman, & Hinton, 2011).

A recent systematic review and meta-analysis by Kirby, Tellegen, and Steindl (2017) analyzed the success of compassion-based interventions on compassion, self-compassion, mindfulness, depression, anxiety, psychological distress, and well-being. They found moderate pre-post intervention effect sizes for compassion, self-compassion, and mindfulness. They also found significant moderate effects for reducing suffering-based outcomes of depression, anxiety, and psychological distress. Significant moderate effects were also found for well-being. These effect sizes were found with both wait-list and active control comparisons (*see* Tables 1 & 2).

*Table 1: Effects of compassion-based interventions on outcome (waitlist control)*

| Outcome Category | $k$ | $N$ | $d$ | $I^2$ |
|---|---|---|---|---|
| Compassion | 4 | 239 | 0.55*** | 0.00 |
| Self-Compassion | 13 | 882 | 0.70*** | 59.99 |
| Mindfulness | 6 | 335 | 0.54*** | 0.00 |
| Depression | 9 | 470 | 0.64*** | 0.00 |
| Anxiety | 9 | 500 | 0.49*** | 13.24 |
| Psychological Distress | 14 | 738 | 0.47*** | 37.40 |
| Well-Being | 8 | 442 | 0.51** | 49.28 |

*Note.* $d$ = standardized mean difference effect size; $k$ = number of samples; $N$ = participants contributing to outcome; $I^2$ = measure of degree of heterogeneity.
* $p < .05$, ** $p < .01$, *** $p < .001$

*Table 2: Effects of compassion-based interventions on outcome (active control)*

| Outcome Category | *k* | *N* | *d* | $I^2$ |
|---|---|---|---|---|
| Compassion | 4 | 239 | 0.55*** | 0.00 |
| Self-Compassion | 16 | 980 | 0.60*** | 62.55 |
| Mindfulness | 8 | 465 | 0.46*** | 30.80 |
| Depression | 10 | 506 | 0.62*** | 0.00 |
| Anxiety | 10 | 536 | 0.42*** | 39.89 |
| Psychological Distress | 16 | 797 | 0.40*** | 57.07 |
| Well-Being | 9 | 474 | 0.48** | 41.44 |

*Note.* $d$ = standardized mean difference effect size; $k$ = number of samples; $N$ = participants contributing to outcome; $I^2$ = measure of degree of heterogeneity.
* $p < .05$, ** $p < .01$, *** $p < .001$

**Compassion Focused therapy**

While all of the previously noted compassion-based treatments share overlapping roots in awareness of human suffering influenced by Tibetan Buddhist traditions (e.g. Hangartner, 2013), Compassion Focused Therapy (CFT) is unique in that its theoretical underpinnings also include attachment theory, evolutionary psychology, and social mentality theory (Gilbert, 2014). CFT is considered a 3rd wave therapy and includes aspects of cognitive behavioral therapy and functional analytic psychotherapy (Gilbert & Irons, 2005). CFT was originally developed in a seriously mentally ill population, but is transdiagnostic in nature and research has found it to be successful in treating diverse conditions such as depression, anxiety, trauma, and psychosis (Heriot-Maitland, Vidal, Ball, & Irons, 2014). It was developed to treat elements of shame and self-criticism that seemed to be resistant to traditional CBT interventions (Gumley & Macbeth, 2014). Self-criticism has been found to be significantly associated with shame-proneness (Gilbert & Miles, 2000), and both are transdiagnostic, increase vulnerability to mental health problems, and elevate risk of relapse (Gilbert & Procter, 2006). CFT counteracts self-criticism and shame by helping patients build the capacity to experience compassion—for others, for themselves, and

from others. CFT uses psychoeducation, emotional modeling, meditative and imagery practices, and experiential therapy to help patients gain insight and build compassionate capacity needed to engage with specific problems (Gilbert & Irons, 2005). The broad goal of CFT is to help patients build the capacity to experience compassion, thus activating the caregiving system to regulate and reassure the self.

**Compassion Processes.** CFT uses the definition of compassion as a sensitivity to suffering in ourselves and others with a deep motivation and commitment to prevent and alleviate it (Gilbert, 2014). The compassion processes underlying the theory are divided into two categories: engagement with suffering, and the alleviation and prevention of suffering (Gilbert, 2014). Engagement with suffering means appropriately detecting the presence of suffering, while alleviation and prevention involves having a behavior repertoire that allows for appropriate responsiveness to suffering (Kirby, Doty, Petrocchi, & Gilbert, 2017). These each in turn have several sub-components. Engagement with suffering involves six core elements: (1) care for well-being, or the willingness to notice and turn toward suffering rather than turn away; (2) sensitivity to suffering, or the ability to be aware of suffering; (3) sympathy, or the ability to be emotionally connected, attuned, and affected by suffering; (4) distress tolerance, or the capacity to tolerate the presence of difficult emotions; (5) empathy, or the ability to take the perspective of another individual or of another part of own mentality; (6) non-judgment, or approaching the whole process from a perspective of acceptance and non-criticism (Gilbert, 2009). Each of these six skills is necessary for compassionate engagement, and failure in any one attribute will affect the ability to engage compassionately (Gilbert, 2014). Alleviation and prevention of suffering have an additional six subcomponents: (1) attention, specifically abilities in mindfulness and refocusing; (2) reasoning, which allows the individual to reach helpful conclusions by skills such

as re-appraisal and perspective-taking; (3) behavior, or the ability to actually act in ways that are helpful; (4) feeling, or the ability to enable emotions appropriate to the situation; (5) imagery, which is used in combination with meditative practices to evoke particular emotions systems; and (6) sensory work, such as breathing regulation, postures, and vocal tones which activate physiological states (Gilbert, 2014). As individuals develop these subskills it is important that they not only develop and stimulate compassionate abilities and values but also cultivate a compassionate self and a compassionate perspective (Gilbert, 2009).

**Evolution and the "Tricky Brain".** CFT uses the concept of a "tricky brain" to refer to the fact that although the human brain has evolved with many advantages and unique abilities, it comes with a number of compromises and "glitches" caused by the ability of our newer cognitive abilities to stimulate our more primitive emotional systems (Gilbert, 2014). The human brain has advanced cognitive capacities, which allow us to imagine, anticipate, use language, and think abstractly. While these clearly confer many benefits to humans, they also come with the downsides of enabling humans to imagine infinite possible, but non-existent, dangerous scenarios. These imaginings then trigger the fight or flight response and maintain activation in physiological systems, leading to negative physical and psychological effects over time. The classic example of this, made popular by the book *Why Zebras Don't Get Ulcers* (Sapolsky, 1994), is when a zebra spots a lion at a favorite watering hole, its fight or flight response activates long enough for the zebra to flee to safety, at which point it settles back into a sense of safety. By contrast, a human encountering a lion at a favorite watering hole and fleeing to safety, rather than settling into a sense of safety, is more likely to continue imagining what might have happened had they been caught, or what might happen if the lion is still there tomorrow, or if a relative goes down to the watering hole and meets the lion unawares.

Our mind also evolved a capacity to create an objective sense of self, which is hugely beneficial in planning, communicating, and living in social groups, but also makes self-evaluation possible (Gilbert 2014). Self-evaluation taken in a negative direction results in shame and self-criticism, which are linked to many mental health problems because they continually stimulate our threat systems (Gilbert, 2009).

CFT also emphasizes how each individual is born with a specific set of genes and then shaped by their environment. Our genetics and social context work together to condition our behaviors and emotional responses. Thus, every human is a product of an evolved brain, a set of genes, and a social context, none of which they had any choice in (Gilbert 2009). CFT uses this understanding of human nature not only to understand mental processes and development of psychopathology, but therapists also teach this to patients as “It’s not your fault, but it is your responsibility,” helping to reduce shame and stigma associated with the patients’ mental illness by helping them to recognize that these processes are the result of numerous factors outside of their control and to shift the focus from blame to problem solving (Gilbert 2009).

**Emotion Systems.** CFT divides emotion into three affect regulation systems based on an evolutionary functional view (Gilbert, 2014). These systems are (1) the “drive system”, an activating system focused on seeking and obtaining resources and rewards, (2) the “threat system”, an activating system focused on threat appraisal and defensive strategies, and (3) the “soothing system”, a deactivating system allowing for rest, contentment, and connection (Fig 1). These three systems interact with and balance one another. For example, in the presence of danger, the threat system will become activated, overriding either the drive or soothing system; then, after the threat has passed, the soothing system allows for the threat system to be de-escalated, allowing the individual to return to a state of rest.

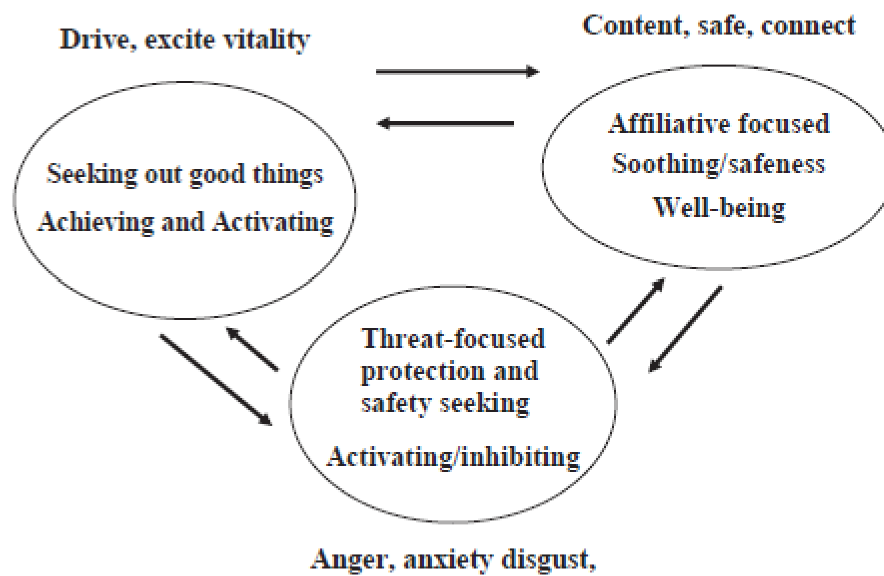



*Figure 1: Three affect regulation systems (Gilbert, 2009)*

Of note, these systems respond to both external and internal stimuli: Encouraging self-talk activates the affiliative / soothing emotional system, while hostile and aggressive self-talk impacts the threat system (Porges, 2007). Because these systems respond to internal stimulation, imagination and imagery are used in CFT to directly access emotional systems and impact mood. Feelings such as anxious, excitement, calm, and sexual arousal can all be stimulated via the imagination. CFT focuses on using imagery to develop compassion and to access the soothing system (e.g. Gilbert & Procter, 2006).

*Drive System.* The drive system motivates individuals to procure resources and pursue pleasurable experiences. It is comprised of activating positive emotions such as joy, fun, and excitement (Depue & Morrone-Strupinsky, 2005). They drive system is linked to the sympathetic nervous system, and excessive arousal can lead to excessive physiological arousal and a hypomanic state (Gilbert, 2014). Hence, while the drive system and its resource gathering behaviors are necessary to a healthy life, it is necessary to have the soothing system to down-regulate activation and allow for rest states.

*Threat System.* The threat system provides the ability to appropriately detect and respond to threat (LeDoux, 1998). This system is comprised of emotions typically considered negative—anxiety, disgust, anger, etc. The threat system is our most "dominant" system in that it has the ability to supersede other emotional systems—put another way, "safety comes first" (Baumeister, Bratslavsky, Finkenauer, & Vohs, 2001). Humans, like other animals, can feel threatened by external stimuli (e.g. a lion, a precipice, and hostile group member). But unlike other animals, humans can also be threatened by internal stimuli such as anxiety, anger, or intrusive fantasies. This allows the threat system to be activated even after the physical danger has passed (Gilbert, 2014).

*Soothing System.* The soothing system is based on calming, soothing, and contentment. This is characterized by a state of acceptance, non-striving, and present awareness. Once a goal has been obtained or a threat has passed, the soothing system (linked to the parasympathetic nervous system) allows a method for the two activating systems (linked to the sympathetic nervous system) to be "turned off" and for the individual to feel safe (Porges, 2007). Through the attachment system, these feelings of safety and soothing are also connected with affiliative experiences. In mammals, the attachment system underlies signals of care, support, and kindness to calm and soothe distressed individuals (Bowlby, 1969). Thus, affiliative behaviors are an important mechanism for activating the soothing system. This relationship can also be seen in physiological markers: activation of the soothing system through affiliative behaviors such as receiving kindness and support from others is linked to reduced sensitivity in the amygdala to socially threatening stimuli (Depue & Morrone-Strupinsky, 2005). Feelings of safety have also been linked to balance in the sympathetic and parasympathetic nervous system, which gives rise to variability in heart rate (Porges, 2007).

**CFT Treatment Foci**

There are a number of key markers that are known to be affected by CFT and that are commonly tracked by researchers. For our purposes, we focused on shame, self-criticism, attachment, and heart rate variability.

**Shame.** CFT was originally created specifically to treat individuals high in shame and self-criticism. The impetus for the creation of CFT was the realization that these individuals struggled to benefit from traditional cognitive behavioral therapy. Both shame and self-criticism are transdiagnostic, increase vulnerability to mental health problems, and elevate risk of relapse (Gilbert & Procter, 2006). The association between shame, self-criticism, and psychopathology has been well-established by research (e.g., Allan & Gilbert, 1997; Gilbert et al., 2010; Kelly & Carter, 2012; Lucre & Corten, 2013; Pinto-Gouveia, Matos, Castilho, & Xavier, 2014), particularly depression (e.g. Kelly, Zuroff, & Shapira, 2009; Marshall, Zuroff, McBride, & Bagby, 2008).

Shame is an emotion linked to our very sense of self—to the kind of person that we feel we are (Gilbert, 1998; Kaufman, 1989; Tangney & Dearing, 2002). Our sense of self is comprised of two processes: (1) How we believe we are perceived, liked, or valued by others, and (2) how we exist and are liked and valued in our own minds. As a result, shame is also comprised of two forms: External shame—the shame that arises when we experience or anticipate condemnation or disparagement from another; and internal shame—the shame that arises when we make negative judgements about our self (Gilbert, 2002; Whelton & Greenberg, 2005).

*External shame*. External shame arises when we perceive our self as creating negative emotions in the mind of the other—anger, disgust, contempt, ridicule. It is the perception that

others do (or would) look down on us and deem us unattractive, undesirable, incompetent, or inadequate in some way. This threat of rejection, marginalization, and even persecution makes the social world unsafe and activates the threat system (Gilbert, 2007). For countless generations, human survival has depended on the ability to gain and maintain a good reputation and social relationship with others. As such, the threat of being ostracized and cut off from sources of care and support is a key fear and critical threat (Gilbert, 2011). Research suggests these feelings of shame and inferiority can be a focus for rumination and are associated with depressive rumination—one of the key ways external shame links to psychopathology (Cheung, Gilbert, & Irons, 2004). CFT works to counteract shame by using compassionate processes to stimulate the soothing system, thus down-regulating the threat response and shifting back to a state of calm and safety.

*Internal shame*. Internal shame arises from negative judgments or feelings about the self, such as being disappointed in oneself (Gilbert & Procter, 2006). Feelings can vary from disappointment, frustration, and anger to disgust and contempt (Whelton & Greenberg, 2005). Internal shame is commonly accompanied by self-criticism, manifested as a stream of negative thoughts, evaluations, and judgments about the self (Gilbert, 2011). The danger of this pattern is when the individual's internal, self-evaluative voice is critical and shame prone, it can lead to overstimulation of the threat system and the individual can be maintained in a state of activation (Lucre & Corten, 2013). The compassion building practices of CFT work to develop an alternative, compassionate inner voice to replace the self-critical shaming, thus allowing the individual to exit the threat system.

**Self-criticism.** Self-criticism can arise from a variety of sources, but the most common is a reaction to shame and the attendant threat of social loss (Gilbert, 2011). Self-criticism has been

found to be significantly associated with shame-proneness (Gilbert & Miles, 2000). There seem to be two forms of self-criticism that manifest in reaction to shame: the "inadequate self" and the "hated self". The inadequate self form is experienced as feelings of inadequacy and inferiority combined with a motivation for self-correction and self-improvement, tending to result in anxiety associated with fears of failure. Hated self, by contrast, is experienced as far more persecutory with a focus on self-attacking, which is more likely to lead to feelings of helplessness, hopelessness, and depression (Castilho, Pinto-Gouveia, & Duarte, 2016)

The pathogenic qualities of self-criticism have two key processes: (1) the degree of self-directed hostility, contempt, and self-loathing of the self-criticism; and (2) the relative inability to generate feelings of self-directed warmth, soothing, reassurance, and self-liking (Gilbert, 2000). Thus, individuals who are prone to the hated self form of self-criticism are more likely to have the first part of the pathogenic process. Once the self-criticism has occurred and the threat system has been activated, individuals with high-levels of self-criticism are more likely to find it difficult to self-soothe or generate feelings of inner kindness, warmth, and self-reassurance (Gilbert & Irons, 2005).

Research has repeatedly demonstrated that high self-criticism is a major vulnerability to psychopathology (Whelton & Greenburg, 2005; Kannan & Levitt, 2013). It has been associated with a range of disorders, including mood disorders (Gilbert & Irons, 2005; Teasdale & Cox, 2001), social anxiety (Cox et al., 2000), self-harm (Babiker & Arnold, 1997), anger and aggression (Gilbert & Miles, 2000; Tangney & Dearing, 2002), and post-traumatic stress disorder (Brewin, 2003; Lee, 2005). Unfortunately, research has also found that individuals with high self-criticism often do not respond as well to traditional cognitive behavioral (Rector, Bagby, Segal, Joffe, & Levitt, 2000) or psychodynamic therapies (Scharffee & Tsignouis, 2003).

While both shame and self-criticism have a large research base establishing their association with psychopathology, some research suggests that self-criticism acts as a mediator between potentially shaming events and psychopathology. When a shame trigger occurs, the act of engaging in self-blame (as opposed to blaming another) predicts vulnerability to psychopathology (Feiring, Taska, & Lewis, 2002). When engaged in the pathological process, an event occurs that is perceived as externally threatening (shaming) and the individual becomes internally self-critical. In that moment, both their internal and external worlds have become hostile, and with such a high level of threat activation, the individual struggles to access self-soothing and self-reassuring abilities (Gilbert & Procter, 2006). Clinical levels of shame and self-criticism represent serious disruptions to the capacity for stimulating the inner soothing system that is critical to emotion regulation and well-being (Gilbert, 2014). The goal of CFT is to teach individuals how to access self-soothing and self-reassuring skills even in difficult moments, thus counteracting the effects of the self-criticism and shame.

**Perfectionism.** In high-functioning populations, one of the ways self-criticism manifests is as perfectionism. Perfectionism is defined by excessive self-criticism associated with high personal standards, doubts about the effectiveness of one's actions, and concerns about meeting social expectations (Frost, Marten, Lahart, & Rosenblate, 1990). Dunkley and colleagues (2006) found that perfectionism has two underlying factors: (1) setting and striving for personal standards, and (2) striving to avoid criticism and rejection from others. This second factor, concerned with how the individual may be evaluated, is significantly linked to self-criticism, and it is these self-critical aspects of the evaluative concerns that are particularly pathogenic (Dunkley, Zuroff, & Blankstein, 2006). Dunkley's factors of perfectionism parallel nicely with

Gilbert's two forms of self-criticism; and in both cases, it is the focus on perceived threat of rejection, rather than achievement, that is linked to development of severe pathology.

The second factor focused on evaluative concerns, is also significantly linked with pathogenic indicators. For example, in studies of college populations, studies have found that perfectionism is an important moderator predicting the amount of psychiatric distress (e.g. Rice Leever, Christopher, & Porter, 2006) and has been linked to poor adjustment, including suicidal risk (e.g. Hewitt, Flett, & Weber, 1994).

Dunkley and colleagues (2003) connect perfectionism with shame processes, suggesting that perfectionists experience "chronic dysphoria" because they experience minor hassles in catastrophic terms and perceive others as condemning, unwilling, or unavailable to help them in times of stress. Thus, in times of duress, when they would be most benefited by a compassionate and affiliative social interaction to regulate their soothing system, they instead perceive threat from all sides: Internally they experience self-criticism and catastrophic inadequacy while externally they experience shame and a perception that they are rejected and isolated from their social network.

Although perfectionism is closely tied to both shame and self-criticism, it has not been studied as a mechanism of change in CFT research. It has occasionally been studied in other compassion-based research (e.g. Neff, 2003) and found to be related to self-criticism. This makes perfectionism a promising area for CFT research with the potential of clarifying and exploring the overlapping dimensions and processes involved in shame, self-criticism, and perfectionism.

**Attachment**

Attachment plays a significant role in the development and use of compassionate abilities because compassion and attachment are evolutionarily and functionally connected. Mammals are

unique among animals in the way that they care for their young, which are born helpless. Because mammalian young cannot provide food or safety for themselves, the parents provide for these needs, and thus the parent becomes a *safe haven* for the offspring, creating an attachment bond. As infants become more mobile and begin exploring on their own, the parent becomes a *secure base* for the offspring to return to, facilitating gradual exploration of the environment. In the mammalian attachment system, signals of care, support, and kindness help to calm and soothe distressed individuals (Bowlby, 1969). The evolution of an attachment system in mammals allowed for the development of compassion in humans (Gilbert & Irons, 2005), and our modern capacities for compassion are rooted in this attachment system (Gillath, Shaver, & Mikulincer, 2005). The development of mammalian attachment necessarily brought with it both the motivation and ability to care for others, to be sensitive to distress in others (e.g. infants) and to take actions to relieve that distress—the very foundation of compassion (Gilbert, 2014).

If attachment bonds are the root of compassion, it also follows that a disruption to attachment might also cause a disruption to compassion processes. And in fact, there has been some cross-sectional evidence that anxious attachment is linked with difficulty in receiving compassion (Rockliff, Gilbert, McEwan, Lightman, & Glover, 2008). What often occurs in an individual who has suffered damage to their attachment system due to abuse or neglect is that in the presence of compassion, either from themselves or another, old patterns of rejection or disruption may be triggered, along with negative emotional memories. This response to compassion can underlie fears of compassion and be a major block to treatment and recovery (Gilbert et al., 2011). However, despite this potential to interfere with treatment effectiveness, to this point the CFT literature has not significantly investigated the influence of attachment on CFT interventions, and this would be a beneficial area of future research.

**Physiological Markers**

Compassion processes have also been linked to certain physiological processes. Each of the three emotion regulation system has corresponding physiological processes. Activation of the threat system is tied to corresponding activation of the sympathetic nervous system and hypothalamic-pituitary adrenal (HPA) axis, resulting in the classic threat-defensive behavior of “fight or flight” (Depue & Morrone-Strupinsky, 2005). Functional magnetic resonance imagining has shown that when individuals become self-critical in the face of a setback, threat-focused areas of the brain are activated (Longe et al., 2010). These threat-focused systems can be counterbalanced and inhibited by the myelinated vagal system. The development of the myelinated vagal nerve is thought to have occurred in conjunction with the evolution of attachment and the ability for infants to be calmed by parental caring behaviors (Depue & Morrone-Strupinsky, 2005). Thus, the rise of compassionate processes in mammalian care-giving is physiologically linked to the ability to stimulate the soothing system.

**Heart Rate Variability.** The myelinated vagal system also allows for the dynamic balancing of the sympathetic and parasympathetic system, which gives rise to variability in heart rate (Porges, 2007). Heart rate variability (HRV) is the variation in time intervals between heart beats and indicates the body’s ability to self-regulate the nervous system (Lehrer et al., 2003). HRV is used as an indication that the body is appropriately balancing the sympathetic and parasympathetic nervous systems (Lehrer, 2007). Hence, feeling safe (e.g. when your emotional regulation systems are in balance) is linked to higher HRV, and higher HRV is linked to a greater ability to self-soothed when stressed (Porges, 2007) and increased higher order cognitive capacities such as perspective taking (Kirby et al., 2017a). In contrast, when individuals feel less safe, there is less flexible balance between the sympathetic and parasympathetic systems (Porges,

2007) and individuals engage in more threat focused and defensive behaviors (Dickerson & Kemeny, 2004). Indeed, both criticism from others (Dickerson & Kemeny, 2004) and self-criticism are linked to HPA axis arousal (Mason et al., 2001). Not surprisingly, individuals experiencing self-criticism or prone to self-criticism tend to have lower HRV (Rockliff et al., 2008).

On the reverse, HRV corresponds to activation of the soothing system, and hence HRV seems to correlate with compassion (Svendsen et al., 2016). Higher HRV is specifically related to compassion rather than positive affect in general (Stellar, Cohen, Oveis, & Keltner 2015). Numerous studies have shown a connection between compassion-based practices and increased HRV. HRV can be increased by specific behavioral strategies such as breathing practices, vocal tones, and facial and postural expressions (Khazan, 2013; Krygier et al., 2013). There is evidence that training in self-compassion acts as a protective factor against decreased HRV caused by psychosocial stressors (Arch et al., 2014). Petrocchi, Ottaviani, and Couyoumdjian (2016) found that compassionate self-talk increased HRV and soothing positive affect. A recent randomized controlled trial by Matos et al. (2017) demonstrated that CFT training increased HRV and feelings of safety, contentment, and compassion while decreasing shame, self-criticism, depression, and stress. It has therefore been suggested that future research ought to consider HRV as a primary measure of compassion cultivation (Kirby et al., 2017a).

However, not all individuals experience an increase in HRV when exposed to compassion practices: In a study exploring how the use of CFT imagery affected ability to self-sooth (as measured by HRV), research found that half of participants responded to imagery of receiving compassion from others with increased HRV and half responded with decreased HRV, depending on their self-reported level of self-criticism and insecure attachment (Rockliff et al.,

2008). This fits with the previous clinical observation that some participants find compassion focused imagery difficult or threatening (Gilbert, 2007). Therefore, in using HRV to assess compassion cultivation and the effects of compassion, it is important to factor in levels of self-criticism and insecure attachment to the analysis.

**Recent Research in CFT**

CFT research includes studies on both CFT and its earlier incarnation, compassionate mind training (CMT). Compassionate mind training was originally used with seriously mentally ill populations, but has also been used in non-clinical populations, and CMT groups for non-clinical populations continue to be offered to the community in some locations. The focus of CMT is on basic psychoeducation (e.g. “tricky brain”, genetic & social shaping) and cultivating compassionate capacities, especially developing the ability to generate feelings of warmth and self-soothing (Gilbert & Procter, 2006). CFT includes these components, of course, but includes additional work on directly exploring and addressing shame and self-criticism in a therapeutic fashion. This is frequently a more intense experience, requiring guidance from a capable therapist (interventions absent in the non-clinical community groups).

CFT was originally developed for the seriously mentally ill, and much of the research has been conducted using this population. CFT studies with the seriously mentally ill have found a significant reduction in symptoms such as anxiety, depression, self-criticism, shame, inferiority, submissive behavior, and overall distress as well as increases in self-compassion, self-esteem, and self-reassurance (e.g. Gilbert & Procter, 2006; Laithwaite et al., 2009; Mayhew & Gilbert, 2008; Heriot-Maitland et al., 2014; Braehler et al., 2013). In recent years, more studies are being done in outpatient populations. These studies have shown similar results, with significant reductions in depression, anxiety, stress, self-criticism, shame, submissive behavior, and social

comparison (e.g. Judge, Cleghorn, McEwan, & Gilbert, 2012; Lucre & Corten, 2013). Leaviss and Uttley (2015) performed a systematic review of the published evidence for CFT and concluded that CFT shows promise for individuals with high levels of self-criticism.

CFT was originally developed as an individual treatment, but it has been successfully extended into group therapy. Research has found CFT to be an effective group intervention (e.g., Ashworth, Gracey, & Gilbert, 2011; Gale, Gilbert, Read, & Goss, 2014; Lucre & Corten, 2013; Mayhew & Gilbert, 2008; Braehler et al., 2013). Recent research has also begun to explore the effectiveness of CFT with transdiagnostic groups (Heriot-Maitland et al., 2014; Judge et al., 2012; Cuppage et al., 2018; McManus, Tsivos, Woodward, Fraser, & Hartwell, 2018). Judge et al. (2012) ran a transdiagnostic group with diagnoses including anxiety, depression, and personality disorders and found improvements in depression, anxiety, stress, self-criticism, and shame. Cuppage and colleagues (2018) ran a 14 session CFT group with participants with transdiagnostic diagnoses (primarily mood, personality, and anxiety disorders). They found significant improvements in shame, self-criticism, psychopathology, fears of self-compassion, and social safeness. McManus et al. (2018) ran transdiagnostic groups in community mental health centers and found improvements in self-criticism, self-compassion, and shame. This is beneficial in many settings as it allows clients with more complex or multiple difficulties to be included because the treatment targets underlying psychological constructs (i.e. shame and self-criticism) rather than symptoms. It also allows clients to benefit from effective interventions without needing to restrict group participation to a single diagnosis or wait for enough referrals of a specific type for a group to be started.

**College Populations.** A number of studies have investigated the topic of compassion specifically in college student populations. In college student populations, compassion towards

self also appears to increase interpersonal happiness, provide greater social support and encourage interpersonal trust with relationship partners (Crocker & Canevello, 2008). The ability to be compassionate with ones' self has been empirically linked with greater resilience in dealing with academic failure and self-criticism (Neff, Hsieh, & Dejitterat, 2005; Neff, Kirkpatrick, & Rude, 2007). Compassion-based interventions with university students have shown effectiveness in increasing coping skills (Smeets, Neff, Alberts, & Peters, 2014). Lincoln, Hohenhaus, and Hartmann (2013) did a brief compassion-focused intervention with non-clinical college students and found significantly lower levels of negative emotion and higher self-esteem than the control condition. College students have even demonstrated improved HRV after receiving self-compassion training (Arch et al., 2014). Thus, both correlational and intervention studies support the link between increased compassion for self with less psychopathology and more effective coping skills in college students.

Although numerous studies have investigated compassion-based interventions in non-clinical college populations, to date there have been no CFT interventions conducted in an outpatient college counseling center (CCC). A few studies have come close to investigating pathology in a college population: Arimitsu (2016) specifically selected for participants low in self-compassion when recruiting students from the university as part of its outpatient sample; the study found that the CFT-based treatment group had significant improvements in self-compassion and decreases in negative thoughts and emotions compared with the control group. Other studies found that self-compassion was negatively correlated with eating disorder pathology in college samples (Ferreira, Pinto-Gouveia, & Duarte, 2013; Wasylkiw, MacKinnon, & MacLellan, 2012). However, no studies have directly implemented CFT interventions into a college counseling center.

Despite the dearth of research on CFT in CCC populations, there is reason to believe CFT will be beneficial in this population. For instance, self-criticism and self-reassurance—two key aspects of CFT—have been found to be a significant moderator of depression in student populations (Irons, Gilbert, Baldwin, Baccus, & Palmer, 2006). CFT focuses on faulty attachment processes, and one study found that psychopathology in the student population was better predicted by the capacity to feel safe and affiliatively connected to one's social environment (indicators of secure attachment) than by positive or negative affect or perceived social support (Kelly, Zuroff, Leybman, & Gilbert, 2012). Additionally, a primary complaint of students presenting for treatment at BYU's Counseling and Psychological Services (CAPS) includes emotional distress associated with perfectionism, which fits with the fact that university students are typically selected because of their success on performance criteria (e.g., GPA, ACT, class standing). Unfortunately, the same attributes that predict academic success—perfectionism—are likely associated with behaviors such as self-criticism, leading to difficulties in coping with the inevitable stress of academic life. Given that CFT was designed specifically to deal with self-criticism (and by extension, perfectionism) CFT is particularly promising for this population.

## CURRENT STUDY

### Statement of the Problem

Although CFT has been studied for decades, several limitations have prevented it from producing high quality, adequately powered randomized controlled trials (RCT). The largest and most pressing concern is the lack of a consistent manual. Dr. Paul Gilbert—the original creator of CFT and a professor at the University of Derby—has authored numerous articles, books, and studies on CFT for the past two decades but has never created a treatment protocol. Researchers

trained in CFT by Dr. Gilbert created and tested various treatment protocols for compassion focused therapy (e.g. Gilbert & Procter, 2006; Braehler et al., 2013; Judge et al., 2012; Lucre & Corten, 2013), and some of these have been RCTs (e.g. Kelly & Carter, 2015; O'Neill & McMillan, 2012; Noorbala, Borjali, Ahmadian-Attari, & Noorbala, 2013). However, there is no consistency among these protocols in content presented, exercises used, number of sessions, etc., and each protocol was typically used for a single study. Additionally, many compassion studies fail to measure protocol adherence to determine the fidelity of intervention delivery (Kirby et al., 2017b). Without a consistent manual, research on Compassion Focused Therapy has been unable to get past the feasibility stage and into the RCT stage.

Another limitation in the CFT research base is inadequate evidence of the mechanisms of change. The underlying theory of CFT posits that reducing an individual's fears of compassion and increasing their ability to engage with and enact compassion will reduce the transdiagnostic effects of shame and self-criticism, leading to decreases in psychiatric distress. A few studies have begun investigating mechanisms of change and have found evidence that changes in self-reassurance, self-criticism, and fears of self-compassion predict changes in psychological distress (Sommers-Spijkerman, Trompetter, Schreurs, & Bohlmeijer, 2018; Cuppage et al., 2018). However, to this point most studies have used measures that failed to measure the multiple dimensions of compassion (i.e. they either measure "compassion" as a whole or only "self-compassion"), and few measured the fears and resistances to compassion. To our knowledge, no studies have looked at how the three flows of compassion predict outcomes. Additionally, the measures used often lacked normative data and clinical cut-offs (Kirby et al., 2017b). This means that the proposed mechanisms of change for CFT (i.e. fears of compassion and use of the three

flows of compassion) have not been adequately measured and linked to change in shame, self-criticism, and psychiatric distress.

The current study strives to address these concerns by (1) creating a CFT group manual in close collaboration with Paul Gilbert that can be consistently used over many studies, (2) verifying the feasibility and acceptability of this manual, and (3) confirming the proposed mechanisms of change by using measures that specifically measure each construct of interest and where possible include normative data and clinical cut-offs.

**Creating a CFT Group Manual**

A primary purpose of the present study was the creation of a CFT group manual that could be used in a series of randomized clinical trials. In October 2016, Dr. Gary Burlingame proposed a collaboration that would lead to a series of RCTs for CFT group therapy, and Dr. Gilbert agreed to create an official CFT group therapy manual to be used in these studies. Gilbert formed an international task force of fellow researchers with research and clinical experience in CFT to help develop a 12-session manual. In addition to Dr. Gilbert, this team included Dr. James Kirby (Lecturer & Clinical Psychologist, School of Psychology, University of Queensland), Dr. Lisa Lyssenko (Dipl-Psych, Institute for Psychiatric and Psychosomatic Psychotherapy, Mannheim Germany), Dr. Nicola Petrocchi (Adjunct Professor of Psychology, John Cabot University, Rome), Dr. Burlingame (Professor of Clinical Psychology, Brigham Young University, Utah), Dr. Kara Cattani (Director of Counseling and Psychological Services, Brigham Young University, Utah), Dr. Patrick Steffen (Director of Clinical Training and Professor of Clinical Psychology, Brigham Young University, Utah), and Jennifer Jensen (Clinical Psychology Doctoral Student, Brigham Young University, Utah). A first version of this manual was completed in August 2017 and was used for the present feasibility and pilot study.

This first version of the manual had 12 sessions and included a brief and detailed outline, sample therapist scripts, and additional readings for therapists. Each session included both didactic and experiential portions. The didactic portions were designed as discussions led by the group leaders in a Socratic questioning style with extensive participation from group members. The experiential portions consisted of meditations, guided imagery, reflective writing, and group activities. Handouts and worksheets were created for each session and distributed to participants for use both in session and during the week. Participants were also provided with recordings of meditation and imagery exercises to use between sessions.

This initial version of the manual was piloted in the current study in a series of groups in Brigham Young University's Counseling and Psychological Services to test for feasibility and acceptability and investigate mechanisms of change. The current study is not only the first to use Gilbert's CFT group manual, it is also the first to investigate the use of CFT in a CCC population. This pilot study ran eight groups of 4-12 students to obtain an adequately powered sample. As will be discussed, this pilot study was successful, showing increases in compassion for self, compassion from others, and self-reassurance and decreases in fears of compassion, self-criticism, shame, and psychiatric distress. Additionally, participants reported an overall positive response to the protocol, with a number of participants expressing interest in forming a follow-up group.

Following the completion of the pilot study, the research team met with the rest of the manual creation team to give feedback on the feasibility and acceptability of the manual. Using this feedback, the team created a revised version of the manual. This second version has 12 modules which each contain two sections: First there is a therapist information section that explains the theory, key concepts, and processes of CFT, and gives tips for tricky sections.

Second, there is the actual session procedure that gives specific direction on topics and handouts to be completed as well as providing sample scripts for the therapist. As before, each module contains both didactic and experiential portions. There is also a corresponding workbook for group members with handouts and worksheets to be used for practice and review between sessions. This also allows participants who miss a session to view material for the missed session. Participants received recordings from their therapists for the meditation and imagery exercises. This manual has already been used in various groups, with plans to expand to more populations and settings and begin a series of RCTs.

**Feasibility & Acceptability**

As this was the first implementation of a brand-new, untested manual, this study evaluated the feasibility of administering it in a clinical population as well as its acceptability to both participants and therapists.

**Feasibility.** As with any new manual, the first question that must be answered is whether the manual as it is presently constituted can be effectively administered and if not, what changes are necessary. To ensure each group received the same treatment and that treatment adhered to the manual, therapist fidelity was maintained through training and fidelity checks. Fidelity checks were created based on the specific content of each session and administered to therapists at the end of each session.

**Acceptability.** Assessing for acceptability to participants and therapists through self-report is key in feasibility studies as individuals are more likely to access treatments that they view as acceptable (Pemberton & Borrego, 2007). A variety of methods are used in the literature to assess acceptability to participants and therapists.

*Participant Acceptability.* The most common method of assessing acceptability is by having participants fill out a self-report Likert scale rating of how much they liked the session/components and/or how helpful they found it (e.g. Ascone, Sundag, Schlier, & Lincoln, 2017; Arch & Mitchell, 2016; Arimitsu, 2016; Burckhardt, Manicavasager, Batterham, Hadzi-Pavlovic, & Shand, 2017; Johns et al., 2016; Morland et al., 2016). These self-reports may be administered either after each session or at the conclusion of treatment and to either all participants or a random sampling. In addition, some studies also accompany the rating scale questions with several open-ended questions, followed by a theme analysis (e.g. Arimitsu, 2016; Braehler et al., 2013). The second most common method of assessing acceptability is by calculating attendance and attrition (e.g. Arch & Mitchell, 2016; Braehler et al., 2013; Capone, Eaton, Mcgrath, & McGovern, 2014), working under the assumption that if participants continue attending treatment, they find the intervention acceptable.

Accordingly, acceptability of the intervention to the participants was assessed through (1) brief self-report ratings of enjoyment, usefulness, and clarity of the session, psychoeducation, and experiential exercises at the end of each session with optional free-response space for specifications or comments and (2) calculation of attendance and attrition rates. Free response comments were considered in making revisions to the manual, but a full thematic analysis was out of the scope of this study.

*Therapist Acceptability.* Acceptability of the intervention to therapists was not formally assessed in any of the feasibility studies surveyed. However, some studies did note informal feedback and suggested changes made by therapists (e.g. Morland et al., 2016). Following each session, both therapists completed a comment sheet with feedback and impressions on what worked well in the session and what ought to be adjusted in future versions of the manual.

Additionally, during the weekly group leader meeting, therapists discussed feedback on the sessions with the research team.

**Investigating Mechanisms of Change and Outcomes**

This study measured a variety of constructs in order to explore potential mechanisms of change at work in CFT and determine how they aligned with those proposed in the theory of CFT. Of interest for this study were the measures of proposed mechanisms of change (i.e., fears and flows of compassion), primary outcomes (i.e., self-criticism and shame), and distal outcome (i.e., psychiatric distress). Additional measures were collected that were not analyzed in this study (i.e. attachment, perfectionism, heart rate variability, and blood pressure).

**Mechanisms of change.** The proposed mechanisms of change for CFT are (1) decreases in fears, blocks, and resistances to the three flows of compassion and (2) increases in the ability to engage with and act on the three flows of compassion. Thus, there are six constructs of interest in the mechanisms of change. Gilbert has created two measures that directly capture these six constructs. The Fears of Compassion Scale assesses the fears, blocks, and resistances to compassion from others, compassion for others, and compassion for self. This measure has been used in a variety of CFT studies over the past few years. The Compassionate Engagement and Action Scales is a more recent measure that measure ability to engage with and act on each of the three flows of compassion. These two measures were used to determine changes in participants' compassionate abilities, thereby allowing us to examine compassion as a mechanism of change in CFT.

**Primary outcomes.** CFT is aimed at reducing self-criticism and shame—two transdiagnostic constructs at play in virtually all psychiatric distress. In order to compare our

results with both the CFT literature and broader studies of self-criticism and shame, we used both CFT-specific measures of self-criticism and independent measures of self-criticism and shame.

***CFT measures.*** From within the CFT literature we selected the Forms of Criticism and Self-Reassuring Scale, which was developed by Gilbert and has been used frequently in CFT studies to measure self-criticism and its counter, self-reassurance.

***Independent measures.*** For independent measures, we used the Self-Criticism subscale of the Depressive Experiences Questionnaire and the Shame subscale of the Test of Self-Conscious Affect.

**Distal outcomes.** CFT focuses on reducing self-criticism and shame with the idea that as they reduce, so too will psychiatric distress. We measured psychiatric distress with the Outcome Questionnaire (OQ-45), a general measure of psychiatric distress which has large databases of normative data as well as established clinical cut-offs for various populations (Lambert et al., 1996).

**Moderators and biomarkers.** This study collected data for a number of hypothesized moderators and biomarkers of CFT. These moderators are not analyzed in this study but will be examined in future studies. These include attachment style, perfectionism, heart rate variability, and blood pressure.

## RATIONALE AND HYPOTHESES

*Aim 1:* To assess the feasibility of the new 12-session manual in a college counseling center outpatient population and to assess its acceptability to participants and therapists. Feedback from participants and therapists will provide guidance for future refinements to the manual.

*Hypothesis 1:* Participants and therapists will find protocol acceptable based on self-report and continued participation. Therapists will be able to administer protocol as written.

*Aim 2:* To assess the effects of compassion focused therapy in a group setting with a college counseling center population using a new CFT protocol on levels of compassion, fears of compassion, self-reassurance, self-criticism, shame, and psychiatric distress.

*Hypothesis 2:* CFT will lead to significant increases in compassion and self-reassurance and decreases in fears of compassion, self-criticism, shame, and psychiatric distress after completion of a 12-week outpatient intervention.

*Aim 3:* To assess the ability of the hypothesized mechanisms of change in CFT (three flows of compassion) to predict change in the targeted outcomes of self-criticism, shame, and psychiatric distress.

*Hypothesis 3:* As compassion increases and fears of compassion decrease, self-reassurance will increase and self-criticism, shame, and psychiatric distress will decrease.

# METHODS

## Participants

**Therapists.** Each group was led by 2 doctoral-level psychologists. Of the 9 group leaders, 7 were licensed clinicians and 2 were advanced doctoral students. All therapists were familiar with CFT prior to the beginning of this study. The primary leader in each group attended at least one training with Dr. Paul Gilbert at the University of Derby. Trainings received included the beginning, advanced, and post-doctoral trainings. Co-leaders read selections from *Mindful Compassion* by Gilbert and Choden (2013) on the theory and practice of CFT. All clinicians had experience with both process and structured groups. Therapist group therapy experience ranged from 3 to 37 years with an average of 13 years. Therapist age ranged from 29 to 63 with an

average age of 45 years old. Therapists reported primary theoretical orientations of ACT (2), CBT (1), CFT (2), client-centered (1), Constructivist (1), Interpersonal (1), Systems (1) and Multicultural (1). Therapists reported secondary orientations including ACT, CFT, CBT, DBT, EFT, Existential, and Interpersonal. Four therapists were female and seven were male. Therapist race was reported with 9 identifying as Caucasian, 1 as Asian, and 1 as multiracial.

**Participants.** Participants were students presenting for treatment at Brigham Young University's Counseling and Psychological Services (CAPS). Participants participating in the CFT groups were recruited by clinical faculty if they met the following inclusion criteria:

- OQ-45 score above 64 to insure sufficient distress to capture meaningful change
- Primary presenting concern related to shame or self-criticism
- Willingness to commit to 12 sessions of group treatment
- Willingness to complete the OQ on a weekly basis and other measures at scheduled times
- Willingness to have group be their primary mode of treatment to insure group will be the primary vehicle for change

Figure 2 shows the participant involvement in the study. Loss of participants over time occurred due to students choosing to discontinue in the study, failing to complete measures, or dropping out of groups. Participants were considered completers if they attended at least 6 groups; partial completers missed three consecutive sessions but still attended at least 6 sessions.

Participants were 73.5% female. Race was 85.5% Caucasian, 7.2% Hispanic, 3.6% multiracial, 2.4% Native Hawaiian or Pacific Islander, and 1.2% Asian. Participants ranged in age from 18 to 29 with a mean of 22.7 years of age at the start of treatment. Primary presenting complaints were depression (28%), perfectionism (20%), anxiety (11%), interpersonal (9%),

stress (4%), identity development (4%), trauma (4%), adjustment (2%), self-harm (2%), OCD (2%), emotional dysregulation (2%), and assorted others (12%). 99% identified as Christian.

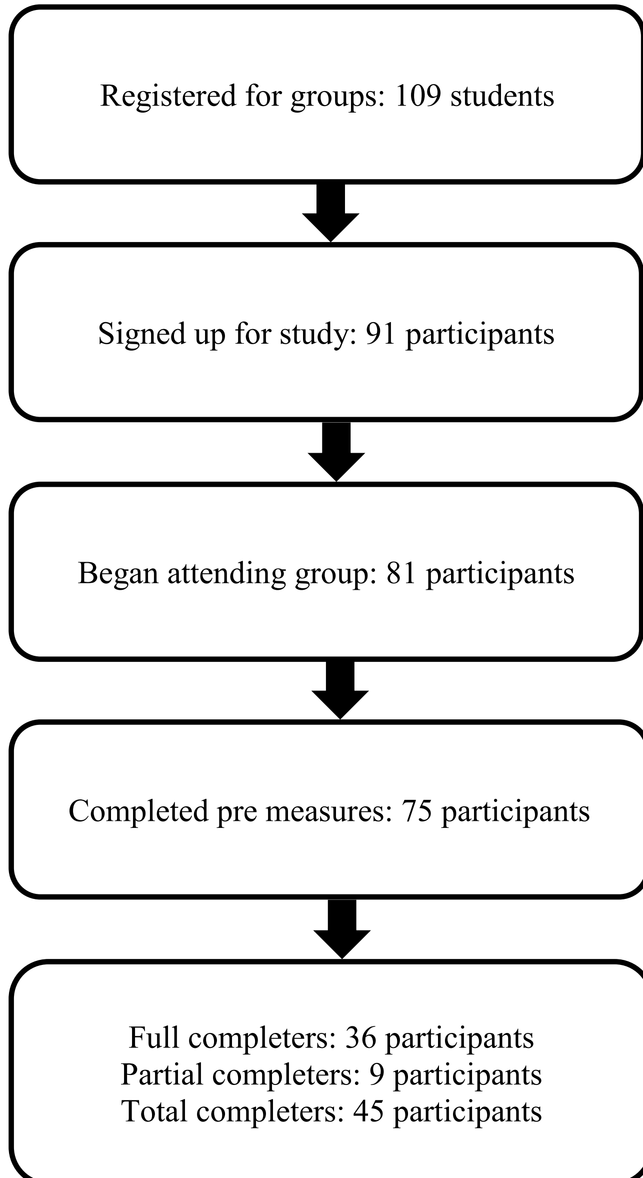



*Figure 2: Study participants*

**Treatment**

Participants were referred to the CFT groups by their individual therapists. Participants were assigned to groups based on their schedule availability. As group was the primary form of treatment during the study, participants were asked to meet with their individual therapists no

more than once every three weeks. Participants engaged in a 12-session weekly outpatient CFT group. Groups had 7 to 14 participants with an average of 9.37 participants per group. Groups ran an average of 11.5 session as four groups combined sessions due to holidays and final exams. Treatment first uses psychoeducation to help participants understand the nature of the human mind and the benefits of mindfulness and compassion. Participants then build the compassion skills through exercises, imagery, and guided meditation. These skills are then used to address psychopathology. Each session includes didactic, experiential, and discussion portions. Participants were also provided with handouts and worksheets for compassion practices as well as audio recordings of meditations and imagery exercises to be completed between sessions. Table 3 briefly overviews the topics and key elements of each session.

*Table 3: Overview of Group Sessions*

| Session Topic | Key Elements |
|---|---|
| 1. Compassion | Exploration of compassion: definition, fears of compassion |
| 2. Emotion Systems | Influences of evolved brain, genetics, and social context on behavior<br>Three emotion systems |
| 3. Mindfulness & Attention | Using attention intentionally for awareness and amplification<br>Use of soothing system to regulate activating systems |
| 4. Safeness vs Safety | “Safe place” imagery<br>“Compassionate Other” imagery |
| 5. Compassionate Self | “Compassionate Self” imagery |
| 6. Self-criticism | Exploration of self-criticism—purpose and effects<br>Using “compassionate self” imagery to address self-critic |
| 7. Shame | Exploration of shame & guilt<br>Addressing shame & guilt with Compassionate Self |
| 8. Multiple Selves | Exploring multiple emotions in threat system<br>Addressing multiple emotions through Compassionate Self |

| | | |
|---|---|---|
| 9. | Compassion for Self | Cultivating compassion for self<br>Compassionate letter writing |
| 10. | Compassion for Others | Shifting from empathy to compassion<br>Compassionate forgiveness |
| 11. | Compassionate Communication | Understanding and expressing needs and feelings<br>Asking for needs & responding to requests compassionately |
| 12. | Continuing Compassion | Review and relapse prevention<br>Wrap-up and goodbyes |

**Measures of Feasibility and Acceptability**

We implemented several methods to assess the feasibility of implementing this manual and its acceptability to both therapists and participants.

**Therapist measures.**

***Fidelity checks.*** As part of the feasibility assessment, therapists completed fidelity checks to determine adherence to the manual as written. Fidelity checks were created for each session to assess the degree to which the therapist adhered to the protocol. Therapists rated adherence according to the checklist immediately following each session. Therapists also met each week as a treatment team to discuss adherence and acceptability with the primary researchers and to participate in CFT group supervision led by the three Gilbert-trained therapists.

***Therapist Acceptability.*** Therapist fidelity checks included free response space for therapists to give feedback on various elements of the session. These were reviewed and used in refining the therapist manual and participant workbook. Additionally, during the weekly group supervision meeting, therapists discussed feedback on the sessions with the research team.

**Participant Acceptability.** Participant acceptability was assessed through attendance data, feedback forms for each session, and practice diaries.

***Feedback forms.*** At the end of each session, participants were asked to complete a brief, paper questionnaire with five questions rated on a 5-point Likert scale (0 = "not at all"; 5 = "very much"):

- How much did you enjoy this session?
- How useful will this session be in your daily life?
- How useful was the educational portion?
- How clear was the educational portion?
- How useful was the experiential portion?

Each question had free response space to allow participants to add additional comments if they wished. The free response items were considered in revising the manual for future studies. A thematic analysis of these free responses is out of the scope of this current study, but may be the subject of a future analysis.

***Practice Diary.*** Included in the participant handouts for each week was a "Practice Diary" which participants filled out at home and submitted at each session. Participants were asked about meditations or activities they engaged in and were given a free response space to reflect on their experiences. These comments were incorporated into the consideration of manual revision and participant acceptability.

**Measures of Change**

This study measured a variety of constructs in order to verify the mechanisms of change at work in CFT and determine how they aligned with those proposed in the theory of CFT. Of interest for this study were the measures of proposed mechanisms of change (i.e. fears and flows of compassion), primary outcomes (i.e. self-criticism and shame), and distal outcome (i.e. psychiatric distress). Additional measures were collected that were analyzed for other studies of

potential moderators (i.e. attachment and perfectionism) and biomarkers (i.e. heart rate variability and blood pressure).

**Mechanisms of change.** The proposed mechanisms of change for CFT are (1) decreases in fears, blocks, and resistances to the three flows of compassion for the three flows of compassion and (2) increases in the ability to engage with and act on the three flows of compassion. These six are captured by two different measures created by Gilbert.

***Fears of Compassion*** *(FCS; Gilbert, McEwan, Matos, & Rivis, 2011).* The Fears of Compassion Scale is designed to assess the fears, blocks, and resistances an individual experiences to each of the three flows of compassion (e.g. "Being too compassionate makes people soft and easy to take advantage of", "I worry that people are only kind and compassionate if they want something from me", "I fear that if I become kinder and less self-critical to myself then my standards will drop"). The FCS has three self-reported subscales, one for each flow of compassion: Fear of Compassion for Self, Fear of Compassion from Others, and Fear of Compassion for Others. Each scale contains various items based on various fears of compassion and rated on a five-point Likert scale (0 = Don't agree at all, 4 = Completely agree). Cronbach's alpha was calculated at 0.85 for fear of compassion for self; 0.87 for fear of compassion for others, and 0.78 for fear of compassion for others. The reliable change index for each subscale was calculated from the literature as 8.39 for fears of compassion for self, 6.85 for fears of compassion for others, and 6.96 for fears of compassion from others.

***The Compassionate Engagement and Action Scales*** *(CEAS; Gilbert et al., 2017).* The Compassionate Engagement and Action Scales are a recently developed measure designed to assess each of the "three flows" of compassion separately with its own subscale: compassion for self, compassion for others, and compassion from others. Each scale includes six items

formulated to reflect the six compassion attributes in the CFT model: sensitivity to suffering, sympathy, non-judgement, empathy, distress tolerance, and care for wellbeing. These sections also include two reversed filler items. Each scale then has four more items which reflect specific compassionate actions to deal with distress and an extra reversed filler item. Participants rate each statement according to how frequently it occurs on a scale of 1 to 10 (1 = Never; 10 = Always). The items in the three scales are nearly identical, with slight wording changes (e.g. compassion for self scale "I am motivated to engage and work with my distress when it arises"; compassion for others "I am motivated to engage and work with other people's distress when it arises"; compassion from others "I feel others are motivated to engage and with my distress when it arises"). The scale has recently been validated with good Cronbach's alphas and factor structures. The CEAS was used to measure changes in participants' abilities to give compassion to self, give compassion to others, and receive compassion from others during the course of the study. The reliable change indices for each subscale were calculated as 12.42 for compassion for self, 7.24 for compassion to others, and 7.60 for compassion from others.

**Primary outcomes: CFT measures.** CFT targets the transdiagnostic constructs of self-criticism and shame. These were measured by both CFT-specific measures of self-criticism and independent measures of self-criticism and shame. From within the CFT literature we selected the Forms of Criticism and Self-Reassuring Scale, which was developed by Gilbert and has been used frequently in CFT studies to measure self-criticism and its counter, self-reassurance.

***Forms of Self Criticism and Self Reassuring Scale*** *(FSCRS; Gilbert et al., 2004).* The FSCRS is a 22-item self-report scale measuring critical and self-reassuring/self-evaluative responses to setbacks or disappointments. Using a five-point scale (ranging from 0 = not at all like me to 4 = extremely like me), participants rate how they might typically think and react

when things go wrong for them. The scale has two subscales for self-criticism: Inadequate self, which measures the sense of personal inadequacy (e.g. “I am easily disappointed with myself”) and Hated self, which focuses on the desire to hurt or persecute the self (e.g. “I have become so angry with myself that I want to hurt or injure myself”). A third subscale, Reassured Self, measures the individual’s ability to be self-reassuring and supportive when things go wrong (e.g. “I am able to care and look after myself”). Cronbach’s alphas for the subscales are .90 for inadequate self, .86 for hated self and .86 for reassured self (Gilbert et al., 2004). The FSCRS was used to measure changes in participants’ levels of self-criticism and self-reassuring during the course of the study. The reliable change indices for each subscale were calculated as 4.34 for reassured self, 5.23 for inadequate self, and 3.36 for hated self.

**Primary outcomes: Independent measures.** For independent measures, we used two measures from outside of the CFT literature: the Self-Criticism subscale of the Depressive Experiences Questionnaire and the Shame subscale of the Test of Self-Conscious Affect.

***Depressive Experiences Questionnaire 48 McGill Revision*** *(DEQ; Santor, Zuroff, & Fielding, 1997)*. The DEQ consists of two subscales: dependency and self-criticism. A revised and shortened version of the DEQ, the McGill revision, is composed of 48 items (instead of 66). The McGill revision not only reduced length, but also increased orthogonality between the two subscales. This study only used the self-criticism subscale. This subscale contains items that reflect concerns about feeling guilty, empty, hopeless, unsatisfied, and insecure and having failed to meet expectations and standards; feeling pressured by responsibilities; feeling threatened by change; feeling ambivalent about oneself and others; tending to assume blame and responsibility; and feeling critical toward oneself. Respondents are asked to endorse items on a seven-point

Likert scale ranging from 1 (strongly disagree) to 7 (strongly agree). Reliability coefficients were measured at .72 for men and .76 for women. The reliable change index was calculated as 15.58.

***Tests of Self-Conscious Affect*** *(TOSCA; Tangney, Dearing, Wagner, & Gramzow, 2000)*. This study measures shame and guilt with the Test of Self-Conscious Affect-3 Short. The full TOSCA-3 measures six dimensions of self-conscious affect: proneness to shame, proneness to guilt, externalization of blame, detachment unconcern, pride in self, and pride in behavior. The questions consist of brief scenarios of day-to-day life. Respondents rate the likelihood of their response on a five-point Likert scale ranging from 1 (“not likely”) to 5 (“very likely”) with higher scores indicating higher levels of the construct. Internal consistencies (Cronbach’s α) for the full 16-item TOSCA-3 were reported ranging from .70 to .83 for guilt-proneness and .76 to .88 for shame-proneness in three samples of university students (Tangney & Dearing, 2002). The short version eliminates the five positive scenarios and therefore does not measure pride in self and pride in behavior. The shame and guilt proneness scale scores of the short version correlate with the scores on the long version at .94 and .93 respectively. The reliable change index for shame was calculated as 7.20.

**Distal outcomes.** CFT focuses on reducing self-criticism and shame with the idea that as they reduce, so too will psychiatric distress. We measured psychiatric distress with the Outcome Questionnaire (OQ-45), a general measure of psychiatric distress which has large databases of normative data as well as established clinical cut-offs for various populations (Lambert et al., 1996).

***Outcome Questionnaire-45***. The Outcome Questionnaire-45 is a 45-question survey that measures participant distress on interpersonal relations, symptom distress, and social role. The OQ has a reported internal consistency of .93 and a test-retest reliability of .84 (Lambert &

Ogles, 2004). Participants answer questions on a 7-point Likert scale. The OQ is administered and scored using a web-based software program that supports several forms of administration (e.g. iPad, online, and paper). The OQ is currently being used to assess all clients receiving services at CAPS. The OQ was used to measure changes in participant distress during the course of the study. The reliable change index for the OQ has been calculated as 14 points.

**Moderators and biomarkers.** This study collected data for a number of hypothesized moderators and biomarkers of CFT (i.e. attachment style, perfectionism, heart rate variability, and blood pressure and heart rate). These are not analyzed in this study but will be examined in future studies.

***Adult Attachment Scale*** *(AAS; Collins & Read, 1990).* The Adult Attachment Scale is an 18-item self-report measure with three attachment dimensions. The "close" subscale measures the ease of forming close relations to others. The "depend" subscale measure the ability to depend on others. The "anxious" subscale measures the degree of worry about abandonment. Each is rated on a five-point Likert scale for how characteristic each statement is of the rater. Cronbach's alphas are 0.69 for Close, 0.75 for Depend, and 0.72 for Anxious.

***Almost Perfect Scale-Revised*** *(APS-R; Slaney, Rice, Mobley, Trippi, & Ashby, 2001).* The APS-R contains two subscales paralleling the commonly accepted construct of perfectionism: Strivings, which is based on levels of personal standards and striving to achieve these standards (e.g. I have high standards for my performance at work or at school); and Discrepancy, which measures distress caused by the discrepancy between performance and standards (e.g. "My best just never seems to be good enough for me").

***Paced Auditory Serial Addition Task.*** The Paced Auditory Serial Addition Task (PASAT; Gronwall, 1977) was used to induce stress for our measure of HRV. The PASAT is

thought to measure speed of information processing, auditory attention, and working memory (Tombaugh, 2006) and has previously been used to intentionally produce stress in a laboratory setting due to the speed and complexity of the task (e.g., Steffen & Larson, 2015). Participants listened to a recording of digits from 1 to 9 and were asked to consecutively add the last two digits. To increase difficulty and monotonically manipulate attention load and thus stress level, participants heard the recording with the shortest intervals between digits (1.6 seconds and 1.2 seconds).

***Blood pressure and heart rate data acquisition.*** Heart rate, diastolic, and systolic blood pressure data were collected using a Dinamp Model 8100 automated blood pressure monitor that capitalizes on the oscillometric method. Readings were taken using a cuff on the upper nondominant arm of the participant following manufacturer specifications. Heart rate variability was assessed using a Nexus 10 Mark II biofeedback device using a 3-lead EKG configuration and a strain gauge respiration belt.

**Procedures**

Participants were recruited during the normal course of intake and therapy by clinical faculty at CAPS. Participants were assigned to one of the CFT groups following typical CAPS procedure of matching schedule availability. Participants were sent a link to a Qualtrics survey to sign a consent form and complete the first round of assessments (CEAS, FCS, FSCSRS, TOSCA, APS-R, DEQ, ASQ, & PASAT). These surveys were sent prior to the first session and completed within three weeks of starting the group. Participants were also scheduled to complete an in-person biometric assessment of heart rate variability within the first 3 weeks of the study. New members were allowed to join the group for up to two weeks after the initial session. Groups met for 120 minutes once per week with a leader and co-leader. Participants were sent a

link to the OQ-45 once per week prior to each group session using the web-based software currently in use at CAPS. Participants were also assigned formal meditations and informal experiential practices between sessions and asked to fill out and submit a "Practice Diary" at the start of the following session. At the end of each session, participants were requested to complete a five-question survey about the session. Due to scheduling complications and member preference around holidays and final exam schedules, groups ran for 11-12 sessions. One group ran for 10 sessions due to a scheduling conflict that delayed the group start date, which required combining the first three sessions into two and the final two sessions into one to cover all material. Participants were considered dropouts if they missed three consecutive sessions. Participants that dropped out were further subdivided into "partial dropout" if they attended at least half of the sessions and "full dropout" if they attended less than half the sessions. Groups used the CFT protocol specifically developed for outpatient populations. Participants were sent a second Qualtrics link between sessions 6 and 7 for the mid-point assessment (CEAS, FCS, FSCSRS, & APS-R). Mid-assessments were completed up to 28 days after session 6. After the final session of group psychotherapy, participants completed a third Qualtrics assessment identical to the first and completed the second HRV assessment. Post-assessments were completed up to 43 days after Session 12. Participants received compensation in the form of a gift card up to $55 for completion of all assessments.

## Analyses

All analyses were done in SPSS 20. A significance level of .05 was selected.

**Feasibilty and acceptability.** Feasibility was assessed by analyzing therapist fidelity checks for each session. Means and standard deviations were calculated and reported. Acceptability was assessed using participant feedback forms for each session, session

attendance, and participant attrition. Means and standard deviations were calculated and reported for each of these. Qualitative responses from feedback forms were weighed in revising the manual, but a formal thematic analysis was outside the scope of this study.

**Measures of change.** Due to the nested nature of group therapy where individuals are situated within groups, scores from individuals cannot be assumed to be independent and data analysis must consider the effects of nesting. We calculated the variance due to groups to determine whether the group effects were significant and whether data analyses needed to account for nesting. This may be due to a variety of explanations, including the small sample size, the overlap in group leaders (each of the eight groups was co-facilitated by one of the three CFT trained therapists), of the strict focused paid to fidelity encouraged through fidelity checks and weekly meetings, which may have resulted in less focus on typical aspects like group climate.

We first investigated whether the group treatment protocol effected change in the predicted mechanisms of change and outcome variables. Each of the subscales related to the CFT literature (i.e. FCS, CEAS, and FSCRS) were measured at pre, mid, and post time points. For measures that can be evaluated at the overall and subscale level (i.e. FCS and CEAS) repeated measures MANOVAs were used to test for significant change in the whole scale and subscales. Wilks' lambda is reported for fully multivariate tests; Huynh-Feldt is reported for univariate tests. For measures that are assessed at the subscale level (i.e. FSCRS) a repeated measures ANOVA was used to test for significance and Wilks' lambda is reported. Next the independent measures of outcome (i.e. DEQ-SC and TOSCA Shame) which were assessed at pre and post time points were examined for change using paired t-tests. Finally, the distal outcome of

psychiatric distress (i.e. OQ) was measured at pre, mid, and post time points. A repeated measures ANOVA was used to test for significance and Wilks' lambda is reported.

Effect sizes were calculated using Cohen's d in order to compare the effect sizes of the changes in compassion in this study with those calculated in previous studies. Effect sizes used cut-offs suggested by Cohen (1988): small, $d = .2$, medium, $d = .5$, and large, $d = .8$.

Reliable change indices (RCI) are the number of points of change needed on a scale between administrations to show that real change has occurred (Jacobson, Truax, & Kazdin, 1992). The RCI uses the standard error of measurement ($SE_{meas}$) to determine the points of change needed between administrations to be confident that the difference is not due to measurement error at $p<0.05$ (RCI = (posttest – pretest) / $SE_{meas}$ where RCI is set to 1.96). Using RCIs, the number of participants who reliably improved, reliably deteriorated, or had no reliable change was calculated for each subscale.

Finally, the ability of change in compassion and fears of compassion to predict change in self-criticism, shame, and psychiatric distress was explored by correlating the change in compassion and fears of compassion scores with the change in self-criticism, self-reassurance, shame, and psychiatric distress between various timepoints. Effect sizes for Pearson's correlations follow the guidelines set out by Cohen (1988): small $r = 0.1$, medium $r = 0.3$, large $r = 0.5$.

## RESULTS

Participant data was included if they met inclusion / exclusion criteria and had a valid and complete pre-assessment within 21 days of the first session, resulting in 75 participants being included in these analyses. Missing data for mid and post assessments had the last observation carried forward. Data for the OQ had more missing data than other measures. Based on

recommendation from researchers who use the OQ frequently (D. Erekson, Ph.D., personal communication, August 30, 2018) a window of 30 days before and 15 days after the first session and 15 days before and 30 days after the final session was used to filter the OQ, resulting in 30 of the 75 participants being included in the OQ analyses.

### Hypothesis 1: Feasibility and Acceptability

**Feasibility Descriptives.** Feasibility was assessed by analyzing therapist fidelity checks for each session. Each question asked therapists to assess how completely they covered that component of the session material and was rated on a 4-point Likert scale from 0 to 3 where 0 = "not present in session" and 3 = "fully present in session". Means and standard deviations are reported in Table 4. Typically scores ranged between "mostly present" and "fully present," which suggests that therapists are generally able to cover components, while still allowing flexibility based on clinical judgment to adapt to the needs of a group to spend more or less time on a particular session topic. Session 12 was the only session to drop below the "mostly present" level.

During the weekly therapist meetings, therapists discussed their experiences with each session and how to approach the next session. A common point of discussion in these meetings was that there was too much material the in manual to be covered in the 2 hour groups, and therapists discussed which exercises they considered key and how to cover the core concepts of the session while leaving space for group members to process and relate with one another. Therapists thus selected exercises and material from the manual that would allow them to cover the core concepts of CFT with their participants without needing to use all the material as written. Key ideas and themes from these discussions were captured by research assistants and

this feedback was provided to the manual creation team and used in creating a revised version of the manual.

*Table 4: Self-reported therapist fidelity by session*

| Session | Session Topic | Mean (SD) | 95% CI |
|---|---|---|---|
| Session 1 | Compassion | 2.44 (0.21) | [2.33, 2.55] |
| Session 2 | Emotion Systems | 2.35 (0.30) | [2.20, 2.50] |
| Session 3 | Mindfulness & Attention | 2.46 (0.29) | [2.31, 2.61] |
| Session 4 | Safeness vs Safety | 2.41 (0.29) | [2.26, 2.56] |
| Session 5 | Compassionate Self | 2.20 (0.51) | [1.94, 2.47] |
| Session 6 | Self-criticism | 2.40 (0.26) | [2.25, 2.55] |
| Session 7 | Shame | 2.46 (0.17) | [2.37, 2.55] |
| Session 8 | Multiple Selves | 2.39 (0.45) | [2.16, 2.62] |
| Session 9 | Compassion for Self | 2.33 (0.22) | [2.21, 2.44] |
| Session 10 | Compassion for Others | 2.05 (0.63) | [1.69, 2.41] |
| Session 11 | Compassionate Communication | 2.42 (0.51) | [2.15, 2.68] |
| Session 12 | Continuing Compassion | 1.91 (0.88) | [1.43, 2.40] |
| Overall | | 2.33 (0.17) | [2.25, 2.41] |

**Participant Acceptability Descriptives**. Acceptability was assessed using participant feedback forms for each session, session attendance, and participant attrition.

***Session feedback forms.*** At the conclusion of each session, participants filled out a five-question feedback form about the enjoyment, usefulness, and clarity of various aspects of the session with each question being rated on a 5-point Likert scale (1 being “not at all” and 5 being “very much”). To determine acceptability of each of the 12 sessions, means and standard

deviations were calculated for each session and overall and are reported in Table 5. To determine if the gradual increase in mean score was related to gradual dropout of participants over time, means were also calculated only including those who were considered completers. However, the means generally followed the same trend.

*Table 5: Participant rating of sessions*

| Session | Session Topic | N | Mean (SD) | 95% CI |
|---|---|---|---|---|
| Session 1 | Compassion | 60 | 3.90 (0.61) | [3.74, 4.06] |
| Session 2 | Emotion Systems | 61 | 4.12 (0.56) | [3.98, 4.27] |
| Session 3 | Mindfulness & Attention | 54 | 4.03 (0.66) | [3.85, 4.21] |
| Session 4 | Safeness vs Safety | 44 | 4.30 (0.60) | [4.12, 4.48] |
| Session 5 | Compassionate Self | 45 | 4.06 (0.63) | [3.87, 4.24] |
| Session 6 | Self-criticism | 43 | 4.41 (0.74) | [4.19, 4.64] |
| Session 7 | Shame | 39 | 4.35 (0.52) | [4.18, 4.51] |
| Session 8 | Multiple Selves | 35 | 4.42 (0.53) | [4.24, 4.60] |
| Session 9 | Compassion for Self | 32 | 4.49 (0.47) | [4.33, 4.66] |
| Session 10 | Compassion for Others | 32 | 4.56 (0.45) | [4.40, 4.71] |
| Session 11 | Compassionate Communication | 23 | 4.53 (0.42) | [4.36, 4.71] |
| Session 12 | Continuing Compassion | 19 | 4.57 (0.55) | [4.32, 4.82] |
| Overall | | 75 | 4.11 (0.53) | [3.99, 4.24] |

Although most qualitative responses to the various CFT concepts made by participants are outside the scope of this study, it is interesting to note which concepts participants found most helpful, especially in light of the manual revision process. At the end of treatment, participants were presented with a list of 20 concepts or skills taught in the group and asked to

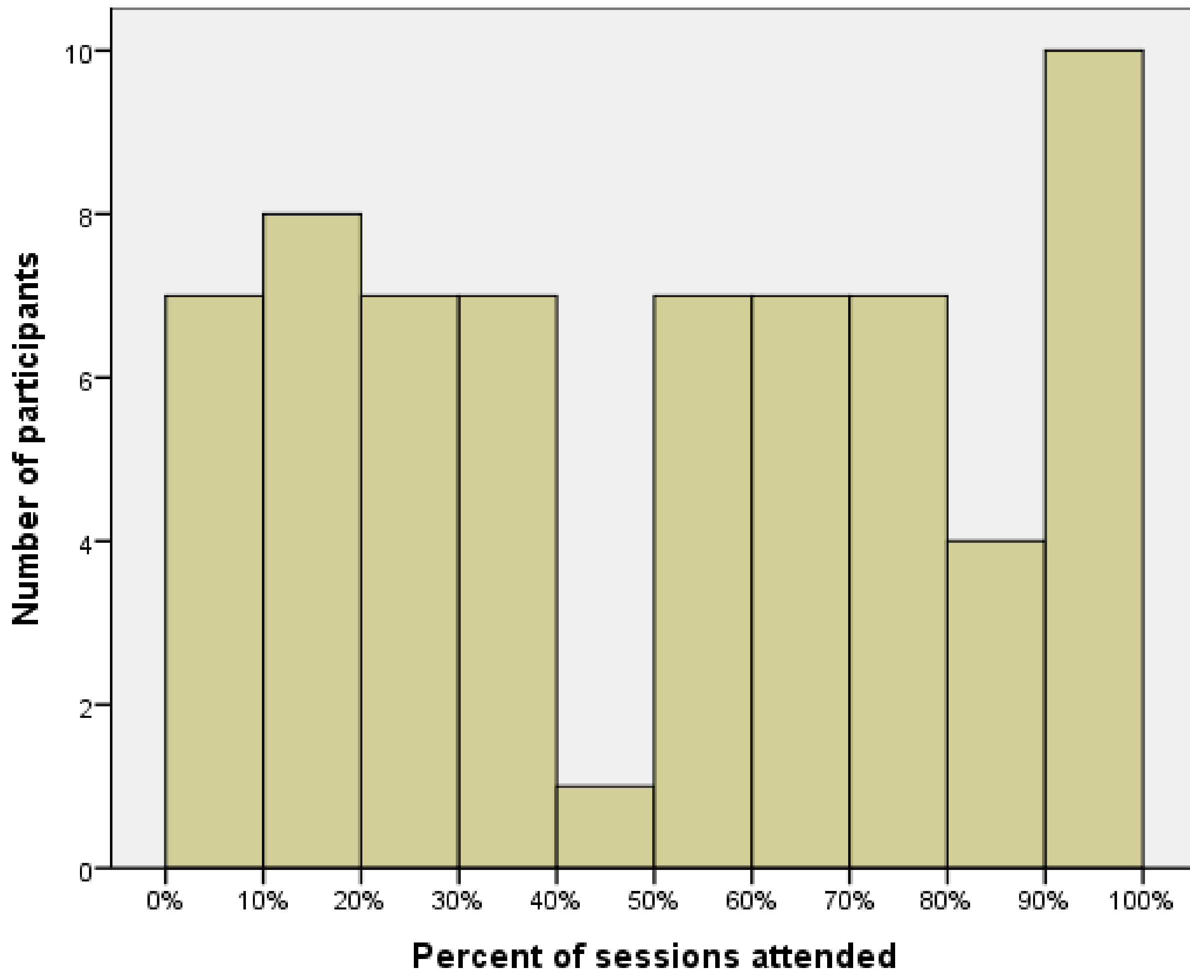
rate how useful this continued to be in their lives on a 7-point Likert scale from 0 to 6. Results are given in Table 6 and were incorporated in the manual revision.

*Table 6: CFT concepts rated for usefulness*

| CFT Concept | Mean (SD) | 95% CI |
|---|---|---|
| Tricky Brain | 4.90 (0.91) | [4.49, 5.31] |
| Compassion as a skill that can be cultivated | 4.90 (1.21) | [4.36, 5.44] |
| It's not your fault, but it is your responsibility | 4.70 (1.13) | [4.20, 5.20] |
| Balancing compassion for others and compassion for self | 4.50 (1.00) | [4.05, 4.95] |
| Compassionate Self | 4.44 (1.15) | [3.90, 4.99] |
| Shame vs Guilt | 4.40 (0.94) | [3.98, 4.82] |
| "Compassion for Voices" video | 4.39 (1.04) | [3.90, 4.88] |
| Three Circles of Emotion | 4.35 (0.81) | [3.99, 4.71] |
| Self-critic | 4.33 (1.03) | [3.85, 4.82] |
| Directing attention to influence emotions, thoughts | 4.32 (1.29) | [3.72, 4.91] |
| Compassionate Other | 4.26 (1.19) | [3.72, 4.81] |
| Compassionate assertiveness | 4.11 (1.28) | [3.51, 4.71] |
| Compassionate posture, facial expression, voice tone | 4.11 (0.99) | [3.65, 4.56] |
| Internal vs External Shame | 4.07 (1.10) | [3.50, 4.63] |
| Compassionate forgiveness | 4.00 (0.97) | [3.56, 4.44] |
| Safe Place | 3.95 (1.27) | [3.37, 4.53] |
| Multiple Selves | 3.78 (2.00) | [2.95, 4.62] |
| Safety vs Safeness | 3.68 (1.16) | [3.15, 4.22] |
| Compassionate letter writing | 3.00 (1.12) | [2.46, 3.54] |
| Self-compassion vs self-soothing | 2.52 (2.11) | [1.64, 3.40] |

***Participant Attendance.*** Participant attendance was viewed as one measure of acceptability of the protocol. Participant attendance ranged from no sessions attended (2 participants) to 12 sessions attended (5 participants). 73 participants attended at least one session. Excluding the 2 participants who completed the measures but never attended session, participants attended an average of 6.41 sessions (SD = 3.71).

Figure 3: Percentage of sessions attended by participants




However, a number of participants (30 of the 73) joined the group after the first session due to the nature of services at the counseling center, and therefore could not have attended all 12 sessions. Percentage of attendance was calculated by taking the number of sessions attended divided by the number of sessions that could have been attended by that participant based on

their start date. On average, participants attended 56% of sessions. As seen in Figure 3, a high number of participants attended 90-100% of sessions. There are no specific standards for interpreting attendance data. However, the 11 therapists who had previously run groups at CAPS indicated that the attendance patterns seemed similar to previous groups they had run at CAPS.

***Dropout.*** Dropout was used as another measure of participant acceptability. Participants who missed three consecutive sessions were considered to be dropouts (37 of the 73 who attended at least one session met this definition). However, a more careful analysis of these 37 participants revealed that a number of returned after a period of absence. This led to adding a new dropout category called “partial dropout”. Any participant who missed three consecutive sessions but attended at least half of the sessions overall was considered a partial drop out (9 of the 37 dropouts). Of note, all full dropouts (participants who missed three consecutive sessions and did not return) attended less than half of their possible sessions, suggesting they decided to discontinue early in the intervention. By contrast, all of the partial dropouts missed three consecutive sessions but attended at least six sessions, suggesting they continued attending through the second half of treatment. Therapists theorized that this pattern of intermittent attendance was likely due to the nature of university student’s exam schedules, trips out of town for holidays or family visits. Given this pattern, it can be determined that 61.6% of participants completed the protocol (see Table 7).

*Table 7: Participant dropout*

| Completion Status | N | Percent |
|---|---|---|
| Full Completer | 36 | 49.3 |
| Partial Dropout | 9 | 12.3 |
| Full Dropout | 28 | 38.4 |

## Group Effects

Given the nature of the data where individual participants are nested within the eight therapy groups, it was necessary to assess the intra-group dependency in the data (Janis, Burlingame, & Olson, 2018). A mixed model analysis in SPSS 20 showed that the variance due to group effects for each of the measures analyzed for hypotheses 2 and 3 (i.e. FCS, CEAS, FSCRS, DEQ, TOSCA, OQ) was either zero or non-significant. Given this result, the data can be treated as independent; all further analyses were therefore done at the individual member level.

## Descriptive Statistics

Means and standard errors were calculated for all subscales and are reported in Table 8. Total number of responses varied between administrations (Pre-assessment: N=72, mid-assessment: N=41, post assessment: N=38). To evaluate how our sample compared to previous studies, we collected comparable means from the literature. This was of particular interest given that this is the first CFT study to be used in a college counseling center population. The subscale means from this study's pre-assessment time point are compared to a variety of clinical (i.e. outpatient and inpatient) and non-clinical (i.e. undergraduate and community) means in Table 9.

In measures related to compassion, participants averaged higher fears than the non-clinical and lower fears than the clinical means for fears of self-compassion and compassion from others, but their fears of compassion to others was statistically indistinguishable from the nonclinical community standard, and significantly lower than the non-clinical undergraduate sample. Similarly, for measures of compassion, our participants again scored significantly lower than the non-clinical samples for self-compassion and compassion for others, but for compassion to others had similar scores to the non-clinical community scores and significantly higher scores than the undergraduate mean. Thus, they demonstrated more difficulties with self-compassion

and compassion from others, but unusually high abilities with compassion to others suggesting a "ceiling effect" for the latter.

*Table 8: Subscale means for pre, mid, and post time points*

| | Pre | | Mid | | Post | |
|---|---|---|---|---|---|---|
| Measure | Mean | SD | Mean | SD | Mean | SD |
| FCS | | | | | | |
| Fears of self-compassion | 28.08 | 11.68 | 24.21 | 11.46 | 21.81 | 12.47 |
| Fears of compassion from others | 24.20 | 9.84 | 22.49 | 9.96 | 20.97 | 10.33 |
| Fears of compassion to others | 13.63 | 6.03 | 12.79 | 5.69 | 12.07 | 5.72 |
| CEAS | | | | | | |
| Self-Compassion | 49.23 | 10.03 | 54.00 | 11.70 | 57.51 | 14.20 |
| Compassion from Others | 54.95 | 16.11 | 59.39 | 18.01 | 59.39 | 17.61 |
| Compassion to Others | 78.89 | 10.95 | 77.59 | 10.99 | 78.03 | 9.87 |
| FSCRS | | | | | | |
| Reassured Self | 10.77 | 5.57 | 11.91 | 6.06 | 13.27 | 6.81 |
| Hated Self | 9.65 | 5.04 | 8.68 | 5.19 | 7.93 | 5.19 |
| Inadequate Self | 28.61 | 5.32 | 26.09 | 6.90 | 23.65 | 8.36 |
| DEQ Self-Criticism | 139.11 | 11.99 | | | 131.92 | 16.32 |
| TOSCA Shame | 39.64 | 5.00 | | | 37.99 | 5.13 |
| Outcome Questionnaire | 75.72 | 22.57 | 74.88 | 24.20 | 70.69 | 24.77 |

Participant scores followed a similar pattern for the outcome measures. For the FSCRS, study participants had significantly more difficulty than the undergraduate sample for all subscales. Their scores on hated self were not as severe as the clinical populations, but the scores for reassured self and inadequate self were similar to the clinical populations. Our participants

had higher ratings of self-criticism than both the undergraduate and outpatient samples, although the latter may be due to the fact that the study was using individuals with remitted depression. Participants for this study also fell between the non-clinical and clinical samples for levels of shame. This fits with the expectation that a university environment would select for and increase levels of perfectionism, which then has the potential to deviate into self-critical and shaming behaviors. For psychiatric distress, our participants matched the norm for college counseling centers reported by the OQ.

*Table 9: Means from the literature compared to study means*

Fears of Compassion Scales from the Literature

| Study | Population | N | Self-Compassion | | from Others | | to Others | |
|---|---|---|---|---|---|---|---|---|
| | | | Mean | SD | Mean | SD | Mean | SD |
| Pilot | CCC | 75 | 28.08 | 11.68 | 24.20 | 9.84 | 13.63 | 6.03 |
| Gilbert, McEwan, Matos, & Rivis 2010 | Undergrad | 222 | 16.12* | 10.38 | 15.78* | 7.81 | 21.18* | 6.71 |
| Gilbert et al 2014 | Inpatient | 53 | 36.69* | 12.34 | 31.69* | 11.69 | 23.62* | 7.56 |
| Gilbert, McEwan, Catarino, & Baião 2014 | Outpatient | 52 | 39.18* | 14.34 | 32.60* | 13.09 | | |
| Matos et al. 2017 (intervention group) | Nonclinical | 56 | 10.00* | 9.63 | 15.95* | 7.86 | 14.20 | 10.33 |

Compassionate Engagement and Action Scales from the Literature

| Study | Population | N | Self-Compassion | | from Others | | to Others | |
|---|---|---|---|---|---|---|---|---|
| | | | Mean | SD | Mean | SD | Mean | SD |
| Pilot | CCC | 75 | 49.23 | 10.03 | 54.95 | 16.11 | 78.89 | 10.95 |
| Gilbert et al. 2017 | Undergrad | 1352 | 61.97* | 14.941 | 59.49* | 15.826 | 71.56* | 16.52 |
| Matos et al. 2017 (intervention group) | Nonclinical | 56 | 66.23* | 11.80 | 66.02* | 14.36 | 77.71 | 11.13 |

*Significantly different at $p<0.05$ with Bonferroni correction

Forms of Self Criticism and Self Reassuring Scales from the Literature

| | | | Reassured | | Hated | | Inadequate | |
|---|---|---|---|---|---|---|---|---|
| Study | Population | N | Mean | SD | Mean | SD | Mean | SD |
| Pilot | CCC | 75 | 10.77 | 5.57 | 9.65 | 5.04 | 28.61 | 5.32 |
| Gilbert et al 2014 | Inpatient | 53 | 10.44 | 6.27 | 13.35* | 5.48 | 29.65 | 5.82 |
| Gilbert et al. 2017 | Undergrad | 1352 | 19.69* | 6.26 | 2.85* | 3.60 | 14.29* | 7.91 |
| Judge, Cleghorn, McEwan, & Gilbert 2012 | Outpatient | 42 | 8.67 | 4.61 | 12.30* | 4.83 | 31.08* | 3.92 |

Independent Scales from the Literature

| | | | DEQ Self Critical | | TOSCA Shame | | OQ | |
|---|---|---|---|---|---|---|---|---|
| Study | Population | N | Mean | SD | Mean | SD | Mean | SD |
| Pilot | CCC | 75 | 139.11 | 11.99 | 39.64 | 5.00 | 75.72 | 22.57 |
| Grzegorek, Slaney, Franze, & Rice 2004 | Undergrad | 273 | 108.99* | 17.35 | | | | |
| Watson 2005[1] | Outpatient | 61 | 114.79* | 18.91 | | | | |
| Canter 2008 | Undergrad | 155 | | | 31.20* | 6.60 | | |
| Rüsch et al. 2007 | Inpatient | 60 | | | 43.57* | 6.30 | | |
| Zabari 2016 | Nonclinical | 84 | | | 28.96* | 7.62 | | |
| OQ Manual | CCC | 486 | | | | | 75.16 | 16.74 |

*Significantly different at $p<0.05$ with Bonferroni correction [1]Participants had remitted depression

**Hypothesis 2: Significant and Reliable Change**

In addition to creating a group protocol that was feasible and acceptable, it was also important that this intervention create change in the expected dimensions. Compassion Focused Therapy focuses on that reducing patients' fears of compassion and increasing their ability to engage and act in the flows of compassion, which is expected to lead to a decrease in the primary outcomes of self-criticism and shame, resulting in a decrease in the distal outcome of psychiatric distress. Accordingly, hypothesis 2 predicted that there would be significant increases in compassion and self-reassurance and decreases in fears of compassion, self-criticism, shame, and psychiatric distress after completion of the 12 sessions.

Changes in means between pre, mid, and post time points were calculated and are reported in Table 10 as early (pre to mid), late (mid to post) or overall (pre to post) change. Significant change was calculated for each of the measures and is reported in Table 11. The CFT mechanism of change measures (i.e. FCS and CEAS) were assessed at three time points and can be considered at total and subscale levels; thus, repeated measures MANOVAs were used to determine if there was significant change for the overall measure as well as the subscales. As expected, nearly all subscales showed significant change. The one subscale that was not significant was CEAS compassion to others which also showed a pre-treatment ceiling effect. The CFT outcome measure (i.e. FSCRS) is considered at the subscale level and was assessed at three time points; thus, a repeated measures ANOVA was used to determine if there was significant change. As expected, all three subscales were significant. The independent measures of primary outcomes (i.e. DEQ and TOSCA) were measured at pre and post time points; thus, paired t-tests were used to assess significant change. As predicted, there was significant change in the self-criticism and shame subscales. The distal outcome of psychiatric distress (i.e. OQ)

was measured at pre, mid, and post time points; a repeated measures ANOVA found there was significant change.

*Table 10: Change in Subscales*

| | Early | | Late | | Overall | |
|---|---|---|---|---|---|---|
| Measure | Mean | SD | Mean | SD | Mean | SD |
| FCS | | | | | | |
| Fears of self-compassion | -3.87 | 8.51 | -2.40 | 5.47 | -6.27 | 9.89 |
| Fears of compassion from others | -1.71 | 5.65 | -1.52 | 4.35 | -3.23 | 7.43 |
| Fears of compassion to others | -0.84 | 3.26 | -0.72 | 2.72 | -1.56 | 3.78 |
| CEAS | | | | | | |
| Self-Compassion | 4.77 | 9.12 | 3.51 | 7.32 | 8.28 | 11.09 |
| Compassion from Others | 4.44 | 11.84 | 0.00 | 8.61 | 4.44 | 12.21 |
| Compassion to Others | -1.31 | 7.03 | 0.44 | 5.32 | -0.87 | 6.33 |
| FSCRS | | | | | | |
| Reassured Self | 1.13 | 3.52 | 1.36 | 3.04 | 2.49 | 3.93 |
| Hated Self | -0.97 | 2.69 | -0.75 | 1.82 | -1.72 | 2.79 |
| Inadequate Self | -2.52 | 5.19 | -2.44 | 5.10 | -4.96 | 6.97 |
| DEQ Self-Criticism | | | | | -7.19 | 12.15 |
| TOSCA Shame | | | | | -1.65 | 3.41 |
| Outcome Questionnaire | -2.77 | 15.45 | -8.07 | 12.00 | -10.83 | 17.23 |

Previous literature on CFT has focused on pre-post effects, and thus reported effect sizes have typically been Cohen’s d. In order to facilitate comparison with our present study, Cohen’s d was calculated for each subscale (see Table 11). Cohen’s (1988) suggested guidelines are

commonly followed in interpreting these effect sizes: 0.2 for a small effect, 0.5 for a medium effect size, and 0.8 for a large effect size.

*Table 11: Significant change over time*

| Measure | df | F | Sig. | Cohen's d |
|---|---|---|---|---|
| FCS[1] | 6 | 5.41 | 0.00 | -0.60 |
| Fears of self-compassion | 1.50 | 22.48 | 0.00 | -0.63 |
| Fears of compassion from others | 1.50 | 11.06 | 0.00 | -0.43 |
| Fears of compassion to others | 1.80 | 8.50 | 0.00 | -0.41 |
| CEAS[1] | 6 | 7.86 | 0.00 | 0.54 |
| Self-Compassion | 1.68 | 29.94 | 0.00 | 0.75 |
| Compassion from Others | 1.77 | 8.13 | 0.00 | 0.36 |
| Compassion to Others | 1.87 | 1.69 | 0.19 | 0.14 |
| FSCRS[2] | | | | |
| Reassured Self | 2 | 15.67 | 0.00 | 0.63 |
| Hated Self | 2 | 15.33 | 0.00 | -0.62 |
| Inadequate Self | 2 | 18.76 | 0.00 | -0.71 |
| DEQ Self Criticism[3] | 74 | -2.26 | 0.00 | -0.59 |
| TOSCA Shame[3] | 74 | -2.05 | 0.00 | -0.48 |
| Outcome Questionnaire[2] | 2 | 8.26 | 0.00 | -0.63 |

[1]Repeated measures MANOVA, [2]Repeated measures ANOVA, [3]paired t-tests

A large effect was found for self-compassion. Medium effect sizes were found for fears of compassion, fears of self-compassion, compassion, reassured self, hated self, inadequate self, self-criticism, shame, and psychiatric distress. Small effects were found for fears of compassion

from others, fears of compassion to others, compassion from others, and guilt. No significant effects were found for compassion to others.

*Table 12: Reliable Change*

| | No Change | | Improvement | | Deterioration | |
|---|---|---|---|---|---|---|
| Measure | N | Percent | N | Percent | N | Percent |
| FCS | | | | | | |
| Fears of self-compassion | 50 | 66.7 | 25 | 33.3 | 0 | 0.0 |
| Fears of compassion from others | 53 | 70.7 | 18 | 24.0 | 4 | 5.3 |
| Fears of compassion to others | 64 | 85.3 | 10 | 13.3 | 1 | 1.3 |
| CEAS | | | | | | |
| Self-Compassion | 51 | 68.0 | 23 | 30.7 | 1 | 1.3 |
| Compassion from Others | 45 | 60.0 | 23 | 30.7 | 7 | 9.3 |
| Compassion to Others | 60 | 80.0 | 6 | 8.0 | 9 | 12.0 |
| FSCRS | | | | | | |
| Reassured Self | 56 | 74.7 | 19 | 25.3 | 0 | 0.0 |
| Hated Self | 56 | 74.7 | 19 | 25.3 | 0 | 0.0 |
| Inadequate Self | 47 | 62.7 | 28 | 37.3 | 0 | 0.0 |
| DEQ Self-Criticism | 56 | 74.7 | 18 | 24.0 | 1 | 1.3 |
| TOSCA Shame | 66 | 88.0 | 9 | 12.0 | 0 | 0.0 |
| Outcome Questionnaire | 14 | 46.7 | 14 | 46.7 | 2 | 6.7 |

The pre-post differences for each subscale were compared to the calculated reliable change index for that scale. Percentages of participants that had no change, reliable improvement, or reliable deterioration are reported in Table 12. Roughly a third of participants showed reliable increases in self-compassion and compassion from others and decreases in fears

of self-compassion and inadequate self. About a quarter showed reliable decrease in fears of compassion from others, hated self, and self-criticism and a reliable increase in reassured self. Shame showed only 12% with a reliable decrease. Nearly half of the sample showed significant improvement on psychiatric distress.

Of note, the percentage of individuals who show reliable improvement is higher when only considering participants who completed treatment (i.e. attended 6 or more sessions) and thus can be considered to have received an adequate dose of treatment. For example, responders who had a reliable improvement in fears of self-compassion rises to 53% and self-compassion and compassion from others increase to 49%. Similar increases occur in outcome measures, with responders who had a reliable improvement in DEQ Self-Criticism rising to 40%.

Taken together, it appears this hypothesis of significant and reliable changes in constructs was supported and thus it can be concluded that this protocol was successful at targeting the constructs intended by CFT.

**Hypothesis 3: Predictive Abilities of Changes in Compassion**

As noted above, we saw significant changes over time in most of the measures of compassion flows and fears, self-criticism, shame, and psychiatric distress. We also saw differences in the number of individual members who changed on the various measures, with reliable improvement ranging from 8 to 37% of all members; most members showed no reliable change (56.5–88% across the measures). To explore this variability, Hypothesis 2 predicted that as the mechanisms of change showed change in the desired direction (flows of compassion increase and fears of compassion decrease), the primary outcomes (self-criticism and shame) and distal outcome (psychiatric distress) would decrease. This follows the theory of Compassion Focused Therapy that reducing patients' fears of compassion and increasing their ability to

engage and act in the flows of compassion directly leads to a decrease in the primary outcomes of self-criticism and shame, resulting in a decrease in the distal outcome of psychiatric distress.

In interpreting the correlations there were a number of patterns we expected to find based on CFT theory (summarized in Table 13). We expected that early change (pre-mid) in the mechanisms of change would predict late change (mid-post) in the primary outcomes, indicating that change in the mechanisms of change preceded changes in outcome measures as predicted by the theory of CFT. Another expected change pattern that fits CFT theory is a simultaneous change in the mechanisms of change and primary outcomes, e.g., as fear of self-compassion decreases so might levels of self-criticism. A final pattern that fits CFT theory is a correlation between early change in mechanisms of change and overall change (pre-post) in primary outcomes. For instance, as patients shift in their flow of compassion, change in primary outcomes during the same time point could begin and this change might continue throughout CFT therapy. In a similar frame, overall change in CFT mechanisms of change and later change in primary outcomes also fits CFT theory. However, there are change patterns that do not fit CFT theory. Late change in the mechanisms of change in the presence of early change in the primary outcomes would be contrary to the predicted relationship. For instance, reduction of self-criticism before there in an increase in the flow of compassion runs contrary to the CFT predictions of mechanisms of change and primary outcomes. If this relationship occurred, it creates confusion in interpreting late changes in the mechanisms of change correlating with overall change in primary outcomes, or overall change in the mechanisms of change predicting early change in primary outcomes. Table 13 can be compared to the data reported in the remainder of this section to aid in interpreting results—in summary, significant relationships in 1a, 2a, 3a, 2b, and 3c are in line with predicted patterns; significant relationships in 1b are

contrary to prediction; and significant relationships in 1c and 3b depend on the pattern of significance in their row or column, respectively .

SPSS 20 was used to calculate Pearson correlations between the subscales measuring changes in compassion fears and flows and the subscales measuring changes in self-criticism and shame. Two-tailed significance is reported. In judging the effect sizes for Pearson's correlations, we followed the guidelines set out by Cohen (1988): small r = 0.1, medium r = 0.3, large r = 0.5. This section also takes the reliable change for each subscale reported above and reports the percentage of individuals who had reliable change on both of the subscales in question. Given that compassion to others did not show significant change across time points, it was not considered in the following correlations. Additionally, although the OQ did show significant change across timepoints, with an average decrease of 10.8 points, it did not have any significant correlations with the mechanisms of change and thus is not further discussed in this section.

*Table 13: Expected patterns of correlation*

| | | Mechanism of change | | |
|---|---|---|---|---|
| | | Early | Late | Overall |
| Primary outcome | Early | 1a) Relationship expected | 1b) Relationship NOT expected | 1c) Same as pattern in 1a and 1b. If 1a and 1b are both significant, relationship is confusing |
| | Late | 2a) Relationship expected | 2b) Relationship expected | 2c) Relationship expected |
| | Overall | 3a) Relationship expected | 3b) Same as pattern in 1b and 2b. If both 1b and 2b are significant relationship is confusing | 3c) Relationship expected |

**Fears of self-compassion.** Changes in fears of self-compassion showed substantial correlation with changes in the primary outcomes for the Gilbert measures of self-criticism (FSCRS), often with medium to large effect sizes (see Table 14). These patterns of relationship generally followed the hypothesized patterns. Changes in fears of self-compassion changed at the same time as the CFT specific measures of self-reassurance and self-criticism, with medium to large effect sizes for early, late, and overall time points. Early change in fears of self-compassion also had medium to large relationships for overall change in primary outcomes, suggesting that the primary outcomes changed at the same time as the mechanism of change and then continued to change over time. The largest effects were consistently found between decreases in fears of self-compassion and decreases in inadequate self. Of those who had reliable levels of change for fears of self-compassion (33.3%, see Table 12), 52.0% also had reliable change in reassured self, 48.0% had reliable change in hated self, and 88.0% had reliable change in inadequate self.

The independent measures of self-criticism (DEQ) and shame (TOSCA) also followed expected patterns, with medium to large relationships of overall change in primary outcomes for each of the three time points for fears of self-compassion. However, early change had large correlations while late change had medium correlations. Of participants showing reliable decrease in fears of self-compassion (33.3%), 52% also showed reliable decrease in DEQ self-criticism, and 28% also showed a reliable decrease in shame. This lower percentage for shame is likely due to the fact that 88% of participants did not show reliable change in shame.

The reassured self scale produced one unexpected relationship (indicated by an italicized bold font in the table): late change in fears of self-compassion predicted early change in reassured self, with a small effect in the opposite direction anticipated. This also makes the

relationship between overall change in fears of self-compassion and early change in reassured self difficult to interpret.

*Table 14: Correlations of fears of self-compassion with outcome measures*

| | | Fears of Self-Compassion | | |
|---|---|---|---|---|
| FSCRS Scales | | Early | Late | Overall |
| Reassured Self | Early | -.46** | ***.27**** | -.25* |
| | Late | -.24* | -.46*** | -.46*** |
| | Overall | -.60*** | -.12 | -.58*** |
| Hated Self | Early | .55*** | -.17 | .38** |
| | Late | -.05 | .51*** | .24* |
| | Overall | .50*** | .16 | .52*** |
| Inadequate Self | Early | .68*** | .01 | .60*** |
| | Late | -.067 | .78*** | .37** |
| | Overall | .46*** | .58*** | .72*** |
| DEQ Self-Criticism | Overall | .63*** | .30* | .70*** |
| TOSCA Shame | Overall | .45*** | .31** | .55*** |

*p < .05 **p < .01 ***p < .001.

**Self-compassion.** When considering the Gilbert measures of self-criticism (FSCRS), changes in the flow of self-compassion showed numerous significant correlations with changes in the primary outcomes, with mostly medium to large effect sizes (See Table 15). These relationships followed the hypothesized patterns. Changes in flows of self-compassion changed at the same time as the FSCRS scales of self-reassurance and self-criticism, with medium to large effect sizes for early, late, and overall time points. Early change in self-compassion also had medium relationships for overall change in primary outcomes, suggesting that the outcomes

began changing with self-compassion during the first half of the study and then continued to change over time. Of those who showed reliable improvement in flows of self-compassion scale (30.7%), 43.5% showed reliable increases in reassured self, 47.8% showed reliable decreases in hated self, and 69.6% showed reliable decrease in inadequate self.

*Table 15: Correlations of flow of self-compassion with outcome measures*

| | | Flow of Self-Compassion | | |
|---|---|---|---|---|
| FSCRS Scales | | Early | Late | Overall |
| Reassured Self | Early | 0.37** | -0.11 | 0.23* |
| | Late | 0.02 | 0.53*** | 0.36** |
| | Overall | 0.35** | 0.31** | 0.49*** |
| Hated Self | Early | -0.41*** | 0.13 | -0.25* |
| | Late | -0.09 | -0.27* | -0.25* |
| | Overall | -0.45*** | -0.05 | -0.41*** |
| Inadequate Self | Early | -0.59*** | -0.16 | -0.59*** |
| | Late | -0.02 | -0.41*** | -0.29** |
| | Overall | -0.46*** | -0.42*** | -0.65*** |
| DEQ Self-Criticism | Overall | -0.40*** | -0.46*** | -0.63*** |
| TOSCA Shame | Overall | -0.28* | -0.32*** | -0.44*** |

$^*p < .05$ $^{**}p < .01$ $^{***}p < .001$.

The correlations between change in self-compassion and change in independent measures of self-criticism (DEQ) and shame (TOSCA) also followed the expected patterns, with medium to large relationships of overall change in primary outcomes for each of the three time points of self-compassion. In examining individuals who showed reliable change on each measure, 56.5%

of those who had reliable increase in self-compassion showed reliable decrease in self-criticism on the DEQ, and 26.1% of those who had reliable decrease in self-compassion also showed improvement on TOSCA Shame. As noted, this lower percentage for shame is likely due to the fact that 88% of participants did not show reliable change in shame.

**Fears of compassion from others.** Changes in fears of compassion from others showed some relationships with changes in the Gilbert measures of primary outcomes (FSCRS), following the expected patterns (see Table 16). For self-reassurance, there were medium effects for measures changing together at late and overall time points. There was also a small effect for early changes in fears of compassion from others correlating with overall changes in reassured self. This suggests that while there is a relationship between decreases in fears of compassion from others and increases in self-reassurance overall, more of the change is occurring later in the intervention. 55.6% of those with a reliable decrease in fears of compassion from others had a reliable improvement on the reassured self subscale.

The relationship between fears of compassion from others and hated self also followed the expected patterns, with early change in both and overall change in both having small effects, suggesting that the constructs changed at the same time. There was a medium effect in early decreases in fears predicting overall decreases in self hatred. Of those who had a reliable decrease in fears of compassion from others, 44.4% had a reliable decrease on the hated self subscale.

Decreases in the inadequate self scale had the strongest relationship with fears of compassion from others. Changes in fears of compassion from others changed at the same time as inadequate self with medium to large correlations for early, late, and overall time points. Early changes in fears of compassion from others had a medium relationship for overall change in

inadequate self. 77.8% of those who had a reliable decrease in fears of compassion from others also had a reliable decrease on the inadequate self subscale.

*Table 16: Correlations of fears of compassion from others with outcome measures*

| | | Fears of Compassion from Others | | |
|---|---|---|---|---|
| FSCRS Scales | | Early | Late | Overall |
| Reassured Self | Early | -0.18 | 0.11 | -0.07 |
| | Late | -0.10 | -0.40*** | -0.31** |
| | Overall | -0.24* | -0.20 | -0.30** |
| Hated Self | Early | 0.26* | -0.11 | 0.13 |
| | Late | 0.15 | 0.16 | 0.20 |
| | Overall | 0.35** | -0.01 | 0.26* |
| Inadequate Self | Early | 0.43*** | 0.12 | 0.39*** |
| | Late | 0.03 | 0.45*** | 0.29* |
| | Overall | 0.34** | 0.42*** | 0.51*** |
| DEQ Self-Criticism | Overall | 0.44*** | 0.38** | 0.56*** |
| TOSCA Shame | Overall | 0.45*** | 0.22 | 0.47*** |

*p < .05 **p < .01 ***p < .001

The independent measures of self-criticism (DEQ) and shame (TOSCA) also followed expected patterns. Overall change in self-criticism had medium to large relationships for each of the three time points for fears of compassion from others. This paralleled the pattern in the Gilbert scale of inadequate self. 55.6% of those with reliable decreases in fear of compassion from others also showed a reliable decrease in self-criticism. For shame, early and overall change in fears of compassion from others had medium relationships, while late change was not

significant. 33.3% of those with reliable decreases in fears of compassion from others also had a reliable decrease in shame.

**Compassion from others.** Changes in flows of compassion from others showed some of the expected correlations with the Gilbert measures of self-criticism (FSCRS), with small to medium effect sizes (see Table 17). Early and overall changes in flows of self-compassion had a relationship with overall changes in Reassured Self, suggesting that early change covaries and Reassured Self continues to change over time. Of the individuals who showed reliable increases in compassion from others 43.5% showed a reliable increase in reassured self. For inadequate self, early change and overall change covaried between changes in flows of compassion from others and changes in Inadequate Self. Early changes in compassion also had a relationship with overall change in Inadequate Self, suggesting that the two measures decreased together early on and then Inadequate Self continued to decrease overtime. Of the individuals who showed reliable increases in compassion from others, 69.6% also showed a reliable decrease in Inadequate Self. Hated Self had no significant relationships with flow of compassion from others. However, Of the individuals who showed reliable increases in compassion from others, 43.5% also showed a reliable decrease in Hated Self.

*Table 17: Correlations of flow of compassion from others with outcome measures*

| | | Flow of Compassion from Others | | |
|---|---|---|---|---|
| FSCRS Scales | | Early | Late | Overall |
| Reassured Self | Early | 0.15 | 0.02 | 0.16 |
| | Late | 0.12 | -0.01 | 0.11 |
| | Overall | 0.23* | 0.01 | 0.23* |
| Hated Self | Early | -0.20 | 0.06 | -0.15 |
| | Late | -0.01 | 0.01 | 0.00 |
| | Overall | -0.20 | 0.07 | -0.15 |
| Inadequate Self | Early | -0.33** | -0.22 | -0.48*** |
| | Late | -0.04 | 0.04 | -0.01 |
| | Overall | -0.28* | -0.14 | -0.36** |
| DEQ Self-Criticism | Overall | -0.33** | -0.19 | -0.46*** |
| TOSCA Shame | Overall | -0.26* | -0.12 | -0.34** |

*p < .05 **p < .01 ***p < .001

The independent measures of self-criticism (DEQ) and shame (TOSCA) also followed expected patterns, with small to medium relationships of overall change in primary outcomes for early and overall change for flow of compassion from others. In considering the subset with reliable increases on compassion from others, 55.6% showed a reliable decrease in DEQ self-criticism and 33.3% had a reliable decrease in shame.

**Fears of compassion to others**. The changes in fears of compassion to others and changes in the Gilbert measures of primary outcome (FSCRS) showed some of the expected relationships with small to medium effect sizes (see Table 18). Late and overall decreases in

fears of compassion to others covaried with increases in reassured self. Early and overall changes in fears of compassion to others covaried with hated self. Early changes in fears of compassion to others also had a relationship with overall changes in hated self, suggesting that they began to change together and hated self continued to decrease over time. Decreases in fears of compassion to others covaried with decreases in inadequate self at early, late, and overall timepoints. Of individuals who showed a reliable decrease in fears of expressing compassion to others, and 50% had a reliable increase in reassured self, 70% had a reliable decrease in hated self, and 80% had a reliable decrease in inadequate self.

*Table 18: Correlations of fears of compassion to others with outcome measures*

| | | Fears of Compassion to Others | | |
|---|---|---|---|---|
| FSCRS Scales | | Early | Late | Overall |
| Reassured Self | Early | -0.22 | -0.03 | -0.21 |
| | Late | 0.03 | -0.33** | -0.21 |
| | Overall | -0.18 | -0.28* | -0.36** |
| Hated Self | Early | 0.37** | -0.09 | 0.26* |
| | Late | 0.05 | 0.21 | 0.20 |
| | Overall | 0.39** | 0.06 | 0.38** |
| Inadequate Self | Early | 0.29* | 0.04 | 0.28* |
| | Late | -0.21 | 0.37** | 0.08 |
| | Overall | 0.06 | 0.30** | 0.27* |
| DEQ Self-Criticism | Overall | 0.08 | 0.36** | 0.33** |
| TOSCA Shame | Overall | 0.13 | 0.19 | 0.25* |

*p < .05 **p < .01 ***p < .001

The independent measures of self-criticism (DEQ) and shame (TOSCA) also followed an expected pattern, with overall change in fears of compassion to others covarying with overall change in independent outcome measures with small to medium effect sizes. Late change in fears of compassion to others also had a relationship to overall change in self-criticism. Of those with a reliable decrease in fears of compassion to others, 50.0% showed a reliable decrease in DEQ self-criticism and 20% showed a reliable decrease in TOSCA shame.

# DISCUSSION

This was a pilot study testing a new manual of Compassion Focused Therapy for groups in preparation for anticipated randomized clinical trials as well as to assess the role of theorized mechanisms of change. We first considered aspects of feasibility and acceptability followed by measures of the constructs CFT intends to change: compassion, self-criticism, and shame.

## Feasibility

Overall, therapists reported being able to cover core CFT concepts from each session of the protocol. Scores from the self-report measures completed by therapists at the end of each session indicated that they delivered most session components. Therapists indicated missing components during a session was due to a combination of in-session clinical judgment and occasional confusion over protocol components. It was not unusual for a therapist to report that they had spent less time on certain components because they determined the group members needed to focus on another topic during the session. These judgment calls are constantly made by group therapists in responding to the needs of the group, and thus it is reasonable that good therapists will always fall slightly short of “perfect fidelity.” Therapists occasionally expressed confusion over psychoeducational or experiential content from sessions, making it difficult for

them to implement these components in session. This feedback has been used in revising the later versions of the manual. Additionally, therapists often felt that there was too much material in each session; reducing the content of each session would allow more flexibility in spending increased time on concepts of interest while still allowing therapists to cover all content. Thus, therapists felt they were able to teach and practice the core CFT concepts from each session by choosing material from the manual most appropriate for their participants. This is a common practice in manualized treatments used with a wide variety of populations, and good therapists much be able to flexibly tailor material in a way that resonates for their patients.

There were also some unavoidable scheduling difficulties inherent to the current practices of the university counseling center that interfered with ability to administer the protocol to fidelity. Groups are run on a semester basis and cannot start until a few weeks after the beginning of the semester to allow the group to fill, resulting in some of the groups having to decide whether to have their final session during final exams. Some groups requested to end early, requiring therapists to combine the last two sessions. While therapists reported they believed this had worked well enough, they had to remove some of the content to fit it all in, resulting in Session 12 having the lowest fidelity scores due to omitted items. Although this is not ideal, it is often an issue faced by real-world clinical situations and is more a reflection of the difficulties faced by this site than the feasibility of the manual itself.

Session 10 had the second lowest fidelity score after Session 12. However, rather than this being due to condensing sessions due to scheduling, therapists indicated this was due to the interaction between the session content and the participants themselves. Session 10 focuses on cultivating compassion for others and compassionate forgiveness. However, participant scores suggested markedly increased ability with compassion to others versus compassion from others

or self-compassion. At the same time, participants had also expressed feeling that compassion to others was an obligation, leading them to feel “burned out” and “drained” by constant giving. Thus, therapists reported spending less time on components of the session designed to cultivate compassion and more time focusing on helping participants develop balance between compassion for others and self-compassion. They also reported spending more time on compassionate forgiveness, which proved to be a challenging concept for many participants who viewed it as different from the concept of forgiveness they had been taught in religious settings. Thus, the lower fidelity score appears to be related to clinical judgment in responding to a unique feature of this population rather than a concern with the session content. As the intention is to use this manual across many populations in the future, this is a valuable example of how content needs to be adapted by skilled clinicians to meet the needs of different populations.

Finally, after feedback from therapists, Sessions 10 and 11 were switched. Therapists expressed that their participants benefitted from learning about compassionate communication and healthy boundary setting prior to discussing compassionate forgiveness. As previously noted, many participants expressed that they were already compassionate to others, but that this felt like a moral requirement and caused added strain. By first covering the material from Session 11 about holding appropriate boundaries and advocating compassionately for one’s needs, therapists felt participants were more able to engage in increasing compassion for others and forgiveness.

**Acceptability**

Acceptability was assessed by participant ratings of sessions, attendance, and dropout rates. The protocol is judged to be overall acceptable to the participants based on their self-report and observable behavior. On the feedback form completed at the end of each session, overall

scores for each session were consistently fairly high averaging 4.31 out of a possible 5 points, indicating that they found the sessions enjoyable, useful, and clear. These scores trended higher over the 12 sessions, which could be interpreted either as participants getting more out of sessions as they became more familiar with the concepts, as participants becoming more invested in the therapy and reporting higher levels of satisfaction, or of participant attrition resulting in the remaining participants being those who found the therapy most beneficial, and therefore were more likely to give higher ratings.

Given this trend toward higher ratings over time, it is not surprising that Session 1 had the lowest overall score on acceptability. However, it was also noted by all participating therapists that Session 1 felt like it had too much content and was too didactic with not enough experiential pieces compared with the rest of the protocol. This imbalance may have contributed to lower ratings by participants, although it is worth noting that ratings for Session 1 were not statistically different from ratings for Session 2 (participant attrition made it impossible to compare all sessions). Based on this feedback, Session 1 was revised in the next manual version to reduce the amount of content and improve the balance of psychoeducation to experiential material. From a broader perspective, therapists repeatedly voice a desire to reduce psychoeducational content and increase experiential exercises based on the observation that the experiential exercises were the points actually facilitating shifts in understanding, building skills, and creating corrective experiences for participants. Future versions of this manual as well as other therapists undertaking Compassion Focused Therapy groups would be well advised to work to minimize time spent on psychoeducation and maximize time spent on experiential exercises and group discussion of the exercises and their further application.

Attendance is also taken as a measure of acceptability, with the idea that if participants like the treatment they will keep coming. Attendance overall seemed to be good, with over a quarter of participants missing one or fewer groups and nearly 60% attending over half. Some missed sessions are expected given the setting: students frequently reported skipping groups for looming exams or project deadlines, going out of town to visit family, or other conflicts. Additionally, all services at the counseling center are free to students, leading to a common concern among clinicians that students feel less invested in therapy and are more likely to no show because there is no consequence and they feel less invested than they would if there were a fee associated. Given these factors, intermittent attendance is normative at CAPS. There was concern among therapists that significant dropout occurred after Session 1. However, it appears that a good portion of these students who did not return were students who did not sign up for the study to begin with, which may be interpreted as a signal of initial ambivalence and lack of commitment toward treatment.

The final factor of acceptability assessed was attrition rates. As there is no established standard for judging attrition, we relied on the clinical judgment of our experienced CAPS clinicians. Our clinicians judged the dropout rates to be similar to other groups they have run at CAPS. Participants were defined as dropouts if they missed three consecutive sessions. They were further subdivided into "partial dropouts" if they completed at least 6 sessions, suggesting that they either went to most of the protocol before stopping or came back after an absence. Again, our clinicians indicated this pattern is frequently observed among student populations receiving free services. With these considerations, 38% of participants were considered full dropouts, while the remaining attended the majority of sessions, if sometimes intermittently. As mentioned, some of this is an inherent issue with the population; it is unclear how much might be

related to acceptability of the protocol. In Leaviss and Utley's (2015) systematic review, they found attrition rates ranging from 10-80%. They noted that some of the reasons given for attrition were reduced distress or feeling upset in session. In another recent acceptability study of a transdiagnostic CFT group (McManus et al., 2018), 52% of participants dropped out before completion of the 16 session group. McManus theorized that this might be reflective of the difficulties many individuals encounter in CFT, particularly around fears and blocks of compassion (e.g. Lucre & Corten, 2013; Gilbert, 2014; Mayhew & Gilbert, 2008; McManus et al., 2018). Thus it is possible that higher attrition rates may also be an inherent risk of CFT protocols. Taking the feedback forms, attendance, and completion data together, it appears that overall participants found sessions enjoyable, useful, and understandable, and that they were willing to continue attending groups and return after absences. This suggests that the acceptability of the protocol is satisfactory.

**Descriptives**

As this is the first CFT study to be completed in a university counseling center population, we collected means from the literature to evaluate how our participants' scores compared to those of previous studies in other populations. Literature means were collected from studies using non-clinical undergraduate and community members, outpatient, and inpatient populations. The OQ was the only measure to have data from a university counseling center population. As seen in Table 9, our counseling center participants tended to occupy a unique position of more distress and difficulty than the non-clinical samples and generally less distress and difficulty than the clinical samples, as might be expected of participants from a college counseling center population (e.g. typically high functioning with high socioeconomic status). There are a few patterns worth noting which are detailed below.

Of particular note was the unusually affinity for compassion to others among our participants. While our participants showed notable deficits in their fears and abilities for self-compassion and compassion from others, they actually performed better than other non-clinical undergraduates on fears and abilities for compassion to others. This is likely the reason that there was significant change in measures related to self-compassion and compassion from others, but not in compassion to others—our participants were already performing above their peer group, leaving less room for observable change (a ceiling effect).

The anomaly of the unusually high compassion for others scale is worth exploring in more depth. The overall pattern of finding compassion to others easier than compassion from others for self-compassion is a common one (e.g. Gilbert et al., 2017). This is likely due to cultural influences: children are explicitly taught to be kind and helpful to others from an early age by parents, teachers, religious institutions, and society at large. They also see it modeled by those around them, and it is praised as a virtue to be kind and compassionate to others. With the idea of compassion as a skill, it makes sense that with this larger amount of practice, many individuals get rather good at it. The same, however, is not true of the other two flows. Self-compassion and receiving compassion from others are seldom taught; they are rarely modeled (in fact, the opposite is often modeled—people being distinctly uncomfortable receiving compassion); and rather than being perceived as virtues they are regarded as selfish, prideful, or weak. With such a cultural background, it is unsurprising that these skills remain undeveloped and have a negative stigma attached.

While our population follows this pattern, the magnitude of difference is striking: their self-compassion and compassion to others scores are below the non-clinical populations, but their compassion to others scores are at or above it. The most likely explanation for the increased

comfort with compassion to others is the culture and environment surrounding students at BYU. Even before the data were analyzed and the differences in means discovered, the therapists from CAPS had discussed the unusual levels of compassion to others as a consistent pattern observed among their clients and were considering its implications to the CFT treatment. The reason for this pattern at BYU is likely due to it being a highly religious population. In our sample, 100% of participants responding to a demographic question on religion during intake identified as religious, with 99% identifying as Christian. Additionally, BYU is a church-owned university, and the vast majority of its students actively attend weekly religious services, hold service roles in their congregations, and endorse religion as an important part of their lives. BYU reports that over 98% of its students are active members of the Church of Jesus Christ of Latter-Day Saints (colloquially referred to as "Mormons"). This faith tradition has a high degree of emphasis on service, kindness to others, and making personal sacrifices for the spiritual good of the community. This was supported by comments made by participants during treatment about their actions and beliefs around compassion to others. Thus, it is likely that this religious culture and environment contributed to their higher scores on compassion for others and lower scores on fears.

One interesting effect of this noted by the therapists was that despite participants' skill and comfort with compassion to others, they spoke repeatedly of their ambivalence towards it. On the one hand, they felt strongly that it was important and regularly engaged in it. On the other hand, they often felt that they kept giving until they were emotionally and physically drained. This resulted in a period of withdrawal to recover, which they often felt guilty for as it seemed "selfish". As a result, therapists emphasized the importance of balancing the flows of compassion and reframing self-compassion not as selfishness but as treating the self as well as

they treated others and as a way to meet their own needs, enabling them to better meet the needs of others. Among the CFT concepts rated for usefulness at the end of treatment, balancing compassion for others and self-compassion was the fourth highest rated out of 20 concepts, suggesting that it was indeed an important aspect of treatment.

This mixed emotional reaction to compassion to others may also explain why changes in compassion to others was not significant, but changes in fears of compassion to others was: participants had a large capacity for compassion to others and regularly engaged in it, but continued to have reservations due to its negative impacts when undertaken at the expense of the individual. Over the course of treatment, participants began learning to balance compassion to others with self-compassion and those fears reduced. Although this has not previously been a large point of emphasis in CFT, it is worth noting for further manual revisions and CFT interventions that therapists may need to watch for ambivalent reactions towards compassion to others and create more discussions and exercises around balancing the flows of compassion as needed.

**Significant and Reliable Changes in Constructs**

In addition to being a feasible and acceptable protocol, it was important that the treatment effect change in the constructs targeted by CFT. Specifically, it was hypothesized that there would be increases in the three flows of compassion and self-reassurance and decreases in fears of compassion, self-criticism, shame, and psychiatric distress. As expected, significant change in the expected direction was found in all subscales except for compassion to others. As previously noted, this is likely because scores on compassion to others were already remarkably high—roughly 30 points higher than their scores on self-compassion and compassion from others, and significantly higher than even non-clinical undergraduates. Their scores had less room (or

potentially less need) for improvement and were therefore not significant. In addition to there being significant change, many participants had enough points of change over the course of treatment for the change to be considered a reliable change for that scale. Thus, this hypothesis was supported, and it can be concluded that this protocol was successful at targeting the constructs intended by CFT.

Although the reduction in shame was significant, it is notable that only 12% of participants had enough decrease in shame to be considered reliable improvement, which is a much smaller percent than for other constructs. There are a number of possible explanations for the relatively small change in shame, including the reduced emphasis in the protocol, diminished distress in this sample, a more resistant-to-change construct, or a measurement difference.

Although self-criticism and shame are major targets of CFT interventions, both self-criticism and shame each have one session specifically focused on them in the 12 session protocol. Therapists noted that the concept of self-criticism seemed to come up repeatedly in discussion in other sessions, whereas shame was less frequently mentioned by group members. This could be a result of self-criticism being a more common issue among a perfectionistic undergraduate population, or it might due to the nature of shame—a construct we tend to avoid discussing or acknowledging. With less exposures to using compassion to address shame during the course of treatment, it logically follows that there would be less of a reduction in shame. In the future, therapists ought to be made aware of this potential bias and make a conscious effort to increase discussions of shame throughout the protocol.

Alternatively, it may have been that self-criticism was a more relevant concern for the participants than shame. This explanation finds support in the means of self-criticism matching clinical norms and being significantly higher than outpatients with remitted depression, while the

means for shame fell below the clinical norms. On the FSCRS, the means for inadequate self and reassured self were equivalent to clinical norms and worse than the undergraduate means. It is worth noting that hated self, which at face value appears to overlap with the construct of shame, fell between the clinical and undergraduate norms, suggesting less distress. In short, our sample "felt" more distress associated with self-criticism than shame. This fits the proposed model that university students with high standards use self-criticism as an unhealthy method of driving themselves to achieve. The heightened scores creating more room for change and the in-session focus on self-criticism collectively explain the larger drop in self-criticism.

Another possibility for the smaller change on shame is the possibility that it may be a more difficult construct to change. Shame does not want to be talked about—the primary behavior motivated by shame is staying quiet and withdrawing—and this action may perpetuate shame. Some therapeutic schools believe that the antidote to shame is to openly talk about it (e.g. Dialectical Behavior Therapy, Linehan, 2014). Almost all emotions are dealt with in therapy by talking about them, but few are so resistant to being spoken out loud (and potentially therefore resistant to being changed) than shame. It may be that shame's greater resistance to being discussed lead to smaller change.

Finally, there is a possibility of a measurement difference. While most of the questionnaires ask participants to respond about their general tendencies (e.g. "I worry that people are only kind and compassionate if they want something from me"), the shame scale presents a specific scenario and asks the participant how they would respond. It is possible this different style of question creates a different response from participants. Unfortunately, the TOSCA shame subscale has not been used in other CFT studies, so at this time it is not possible to compare our results on this subscale with those from other CFT researchers. It is thus

challenging to determine if measurement differences may have been a contributor to the small percentage of reliable change in shame.

**Effect Sizes**

Effect sizes were calculated to determine the magnitude of the significant change. Previous literature on CFT has focused on pre-post effects, and thus reported effect sizes have typically been Cohen's d, and we therefore calculated Cohen's d as well to facilitate comparison. As might be expected, the largest effect sizes were found for scales relating to self-compassion, followed by the CFT measures of self-criticism, and then the independent measures of self-criticism and shame.

In an attempt to compare our study with past compassion-based interventions, we used the effect sizes reported in a recent meta-analysis (Kirby et al., 2017b; refer to Table 1). It is important to note three important differences between our effect sizes and the ones contained in this meta-analysis. First, the meta-analysis examined several compassion-based interventions, not just CFT. Second, they report an overall change in compassion, while we further subdivide it into compassion to others and compassion from others. Third, their effect sizes compare active intervention to waitlist control, while ours reflect pre-post change. Thus, effect sizes comparisons should be considered with caution.

Published effect sizes for change in self-compassion (d = .70) were comparable with our study's effect size (d = .75). However, published effect sizes for changes in compassion were smaller in this study (d = .14-.36) than in the meta-analysis (d = .55). Effect sizes for decreases in psychiatric distress were slightly higher in this study (d = .63) compared with the meta-analysis (d = .47). Taken together, this suggests that the current CFT protocol produced comparable change to other compassion-based interventions, although stronger effects were

found on self-compassion. Perhaps with further revisions to the protocol, future randomized clinical trials with larger samples sizes will lead to effect sizes for compassion that are comparable to those reported in the literature.

**Predictive Abilities of Changes in Compassion**

The final goal of this study was to determine if the changes found in the hypothesized mechanisms of change in CFT (the three flows of compassion) were able to predict change in the targeted outcomes of self-criticism, shame, and psychiatric distress. Recent research (Cuppage et al., 2018; McManus et al., 2018) has found that changes in self-criticism, self-reassurance, and fears of self-compassion predict changes in psychiatric distress, but this is the first study to examine the relationship between the three flows of compassion and self-reassurance, self-criticism, and shame. It was hypothesized that as the mechanisms of change showed change in the desired direction (flows of compassion increase and fears of compassion decrease), the primary outcomes (self-criticism and shame) and distal outcome (psychiatric distress) would decrease. This follows the theory of Compassion Focused Therapy that reducing patients' fears of compassion and increasing their ability to engage and act in the flows of compassion directly leads to a decrease in the primary outcomes of self-criticism and shame, resulting in a decrease in the distal outcome of psychiatric distress. We thus expected to see patterns of changes in fears and flows of compassion either preceding or occurring concurrently with changes in the outcome measures.

**Overall Changes in Compassion.** Changes in the three fears of compassion scales, self-compassion, and compassion from others significantly predicted changes in both the CFT and independent measures of outcome. Increases in self-compassion were consistently the strongest predictors of changes in self-criticism and shame. This supports the CFT theory that increasing

abilities to cultivate compassion increases self-reassuring and decreases experiences of self-criticism and shame.

**Early and Late Changes in Compassion.** Early changes in fears of compassion, self-compassion, and compassion from others consistently predicted early changes in self-criticism on the FSCRS, but did not predict late changes. Conversely, late changes in self-compassion and fears of compassion predicted some late changes in self-criticism, but never predicted early changes. This suggests that changes in compassion and self-criticism are happening simultaneously rather than having a delayed effect. This is encouraging news from a clinical perspective, as it suggests that as clients develop increased capacities for compassion, they reap immediate benefits. However, as these assessments were done only every 6 sessions, more frequent assessments in a future study might be able to pick up on which changes are occurring first.

It is certainly exciting to see that overall, early, and late changes in compassion and fears of compassion predict the hypothesized changes in self-criticism and shame, especially considering the medium to large correlations for many of them. It suggests that not only are the expected changes occurring, but that they are related to each other and happening in expected ways. However, this study cannot prove causation in that changes in compassion are driving the changes in self-criticism and shame. It is, however, an intuitive hypothesis, and the hope is that future randomized clinical trials will be able to establish this causality.

**Similarities in Self-Compassion and Compassion from Others.** Changes in both fears and flows of self-compassion and compassion from others tended to predict self-criticism and shame in ways that were similar to each other. Due to the potential ceiling effect, it is unclear how compassion to others might compare. However, there are theoretical explanations

supporting a close link between self-compassion and compassion from others. Clinical populations nearly always have difficulty with both self-compassion and compassion from others. In CFT practices, it is common to increase self-compassion by creating a visualization of a compassionate being and practicing feeling and accepting compassion from this being, and then transition over time to giving the self-compassion more directly. This also parallels the mammalian pattern of being soothed by a caregiver while young, and then learning to self-soothe without the caregiver over time (Gilbert & Choden, 2013). In fact, when mammals do not have an attentive caregiver when young, it appears they are unable to learn the skills to self-soothe. Thus it seems that there is an inherent link between ability to receive compassion from others and self-compassion.

**CFT Measures Versus Independent Measures**. As this study used both measures of self-criticism from the CFT literature and an independent measure, it is interesting to see how they overlap in the way they are predicted by compassion. The FSCRS Inadequate Self subscales shows very similar correlations to the DEQ Self-Criticism scale; it correlates with all the same subscales and timepoints as well as having similar sizes of correlation. In contrast, the FSCRS Hated Self subscale has slightly fewer and weaker predictions by self-compassion than the DEQ Self-Criticism scale. Although both of these CFT subscales measure self-criticism, they address two different factors: Hated Self focuses on harming the self and viewing the self as despicable, whereas Inadequate Self focuses on self-correction and viewing the self as not measuring up. It seems likely that in this population of high functioning, perfectionistic students, Inadequate Self would be of greater concern than Hated Self. Thus, it would be logical for there to be more movement in Inadequate Self and for compassion to play a larger role. The parallel between

DEQ and Inadequate Self suggests that the DEQ, a more broadly used measure of self-criticism, may be tapping more closely into the construct of Inadequate Self than Hated Self.

**Psychiatric Distress.** Although there was significant change in psychiatric distress during the course of treatment, change in psychiatric distress was not significantly predicted by the mechanisms of change. This could be due to the smaller available data for psychiatric distress making it more difficult to detect change. It could also be that psychiatric distress is not directly impacted by the fears and flows of compassion, but rather is indirectly affected via the primary outcomes of self-criticism and shame. This fits with the CFT theory of change, which posits that self-criticism and shame are transdiagnostic factors that drive psychiatric distress, and by reducing fears of compassion and increasing flows of compassion, self-criticism and shame are alleviated, and by extension psychiatric distress is reduced. Treatment in CFT is highly focused on reduction of self-criticism and shame, not psychiatric distress generally; thus, it seems likely that the mechanisms of change have only an indirect effect on psychiatric distress, and therefore no significant correlations were found.

## Conclusion

Overall, this pilot study was deemed to be a successful first use of the new CFT group protocol. Therapists were able to administer the protocol with good fidelity, and their suggestions have been incorporated into revising the manual for the future randomized clinical trials. Participants reported finding the sessions enjoyable, useful, and clear. Attendance was sporadic at times, but there was a general pattern of returning to group even after missing several sessions, indicating that participants found value in the treatment. Significant changes were found as expected in various constructs: increases in compassion and self-reassurance and decrease in fears of compassion, self-criticism, shame, and psychiatric distress. Most of these

changes demonstrated medium to large effect sizes. Finally, the mechanisms of change for CFT (three flows of compassion) significantly predicted changes in self-criticism and shame, with most correlations being medium to large in size.

**Limitations**

Several limitations to this research should be considered. First, as a pilot study, there was only one treatment condition and no control or waitlist group. Thus, all changes had to be compared to previous assessment scores, and there is no way to determine how much change resulted from the intervention and how much would have otherwise occurred. However, given the relatively short time period during which the intervention occurred (12 weeks) and the clinical levels of distress, shame, and self-criticism that participants reported, it seems unlikely that such change would have occurred spontaneously. Experienced therapists from CAPS also noted that change at the end of the semester, when post-assessments were administered, is especially notable given that it coincides with final exams, when students otherwise tend to show an increase in distress, and the counseling center has a sharp increase in requests for appointments. Thus, the change in scores found in this study is likely to be evidence of real change for participants. Future studies with control or waitlist conditions will aid in clarifying the effectiveness of the intervention.

Additionally, participants were highly educated college students, white, young, religious, from mostly higher socioeconomic backgrounds. With such a homogenous sample, caution should be used in extending the results of this study to other populations. Given the number of CFT studies in the literature that have been conducted across a wide diversity of settings, ages, diagnoses, and countries, it is likely that this protocol, which is based on the same principles and employs similar exercises as many previous studies, would have similar results in other

populations, but caution is always advised with new interventions. Additionally, it is believed that there were a number of unusual aspects to this population, such as the high adherence to one specific religious sect and the notably elevated scores in compassion to others, which may have affected the outcomes of this study. This again makes it wise to use caution in extending these findings to other populations.

Another limitation of this study were all of the issues that arise from doing research in an active counseling center whose priority is first and foremost to help their students rather than create perfect research. One such notable issue was groups being cancelled for exam schedule or holidays, requiring sessions to be condensed. Another issue was the number of participants referred to the groups who did not meet the inclusion criteria, but who needed to be included to ensure appropriate clinical care. Additionally, students tended to skip groups and a number dropped out completely, which therapists commented was common in the college counseling center environment where students have many demands and have no fee for missed sessions. This creates issues with how much of a true “dose” of treatment they received. Such issues are common in clinical research, and while on the one hand they reduce fidelity and clarity in the research, they also show the ability of an intervention to succeed in a real world setting where flexibility is required and imperfection is inevitable. The results obtained in this study are a testament to the potential of this intervention to help clients even without ideal research conditions.

**Future Directions**

From this beginning, this pilot study was always meant to be the beginning of a larger program of research designed to create the first randomized clinical trials (RCT) for CFT group therapy. As such, it is anticipated that future research will use this manual to perform RCTs for a

variety of populations in different settings around the world. Shortly after completion of this intervention, feedback from all therapists was collected and integrated into revising the manual. The revised version of the manual is currently being used in a variety of locations, including the BYU Counseling and Psychological Services CAPS, in Australia for groups of veteran's and spouses, and a seriously mentally ill inpatient population at the Utah State Hospital. The manual is being used for various disorders including borderline personality disorder and eating disorders. It is also being used in various populations, such as seriously mentally ill, college counseling center, veteran, and LGBT+. These studies are occurring in various countries, including Italy, Australia, and the Netherlands. This series of studies using a common manual in various countries and populations will begin the process of building a strong foundation of empirical validation for the new CFT group manual. These RCTs will allow us to duplicate our findings related to significant change and correlations as well as extend our research into investigating causal relationships and applicability to broader populations.

Another area for future research would be follow up data to determine if gains were maintained or if they continue to make gains after treatment ends. Another option would be to have an option for continuing groups based on CFT. Near the end of the protocol, a number of participants asked if there were an option to continue attending CFT groups, and in fact two of the therapists did continue to run a CFT-based process group. Future studies could assess potential benefits of continuing to focus on CFT principles.

There are also a number of other relationships and constructs that could be explored through mediator and moderator analyses. For example, it has long been hypothesized that early attachment plays a role in development of self-criticism, shame, and compassionate abilities. It would be interesting to explore the relationship between attachment and theses constructs, as

well as how that predicts therapy outcomes. The relationship between the mechanisms of change (i.e. fears and flows of compassion), primary outcomes (i.e. self-criticism and shame), and distal outcome (i.e psychiatric distress) could also be explored to determine if in fact the primary outcomes mediate the relationship between mechanisms of change and psychiatric distress, rather than there being a direct connection.

Future research could also look for dose effects relating to compassion. For instances, do participants who attend more of the groups have better outcomes? Do participants who engage in compassion exercises outside of session show greater gains in compassion and decreases in distress? The idea of compassion as a skill than can be cultivated combined with compassion as the mechanism of change for decreasing self-criticism and shame would suppose that individuals who spend more time developing compassion should show greater gains. It is therefore hoped that future research can clarify the relationship between compassion practices and psychiatric improvements.

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**APPENDIX A: CFT Group Protocol**

| Session 1: Introduction | | | |
|---|---|---|---|
| **Min.** | **Main points** | **Psychoeducation** | **Practices** |
| 15 | Welcome participants and ground rules | ✓ Introduce ground rules | ✓ Eliciting participants' own rules and write them on the flip-chart<br>✓ Introductory game<br>✓ What brings you here?<br>o Asking them to reflect on it for two minutes and then share<br>o OR: in couple, they ask each other three times: "What brings you here?" |
| 25 | CFT definition of compassion | ✓ Differences between compassion and other "constructs" (misunderstandings)<br>✓ CFT definition of compassion (the qualities of the 2 psychologies of compassion)<br>✓ Compassion not as "getting rid of suffering" but more as strength and courage | ✓ Ask: "How would you want a compassionate person to be, who unconditionally supports and helps you?" Note answers on flipchart, elicit definition<br>✓ Group work (3 participants each): Assign the attributes on the flipchart to the two psychologies<br>✓ EXAMPLE: helping a friend in distress? What would this friend need? Would you be critical? Why not?<br>✓ What compassion is and what compassion is NOT: common misunderstanding<br>✓ WORKSHEET: PRO and CONS of developing compassion for you |
| 25 | INTRO: personal examples of compassion<br>and<br>"feeling compassion"<br><br>(just to give participants an initial "feeling" of the work and of the possible | ✓ Start by asking: "How would you feel with a person, who unconditionally supports and willing to help you?"<br>✓ OR: remember someone who has been very compassionate with you | ✓ Now, just to give you a felt sense of what we will be exploring, think of a moment when someone has been compassionate with you in your past<br>o Imagine it clearly<br>o What was in his/her mind?<br>o Why would you define it compassionate?<br>o How did it make you feel?<br>o Would you need the same treatment now? |

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|---|---|---|---|
| | resistance that will arise) | | ✓ Discussion on several characteristics and several feelings→ why would you need them now? What would it be your fear? |
| 10 | Homework | ✓ During the day, start noticing moments that you would define "compassionate" (you being compassionate, or somebody else – every day at least one)→be curious of why you noticed them.<br>✓ At least once a day think about the motivation: why would I need compassion, right now in my life? | |
| 10 | Wrap-Up | | ✓ One sentence: "What do I take home from today's session (because I feel it' going to be helpful)?"<br>✓ Little "stilling" exercise: "as we will discover, some of the practice we will use during this path are designed to still the mind→ brief mindfulness "closing" exercise without any particular instruction (maybe: just observe how what we have said today is landing for you")→ MP3 with a short track of "stilling and starting the compassionate path"<br>✓ acknowledging myself for just being here |

| Session 2: Three circles | | | |
|---|---|---|---|
| **Min.** | **Main points** | **Psychoeducation** | **Practices** |
| 5 | Soft landing | | |
| 10 | Homework Revision | ✓ Changes during the week?<br>✓ Possible resistances?<br>✓ Was it useful? | ✓ So, why do you think we need compassion? |
| 20 | CFT reality check<br>"why do we really need compassion?" | ✓ Not my fault but my responsibility<br>o Genes we did not choose<br>✓ The tricky brain<br>✓ Being socially constructed<br>✓ It's not your fault<br>✓ Brains responds to self-generated patterns | ✓ MAYBE: History of the young Buddha<br>✓ EXAMPLE: car<br>✓ EXAMPLE: zebra<br>✓ EXAMPLE: bowel<br>✓ EXAMPLE: car in the parking slot<br>✓ EXAMPLE: alcoholic friend<br>✓ IMAGERY: ice-cream-lemon-memory of a friend-memory of someone critical<br>✓ MAYBE: imagine that also others are on the "same boat" |
| 30 | The "balancing" effect of Compassion on our emotions | ✓ Explanation of the 3 circles<br>✓ Parasympathetic system?<br>✓ Safeness and safety<br>✓ Maybe the "Stuart" video | ✓ What would it be like if we were like computers and didn't have any emotions at all?<br>✓ VISUALIZATION: Imagine three types of emotions<br>✓ IN PAIRS: Drawing the circles and Couples interview<br>o With the final question: why do you feel the green system needs to be stronger?<br>o What are the resistances to make it stronger?<br>✓ EXAMPLE: cat<br>✓ IMAGERY: best possible self in the future. How much green in it? |
| 10 | INTRODUCING fears, blocks and resistances | ✓ Self-criticism and shame as resistance→ they stimulate the red system<br>✓ They will naturally arise: are you ready to work with them? | ✓ Do you feel any resistance to develop the green? What could block the process for you?<br>✓ On a flipchart write what the group says→ helping them realize how common self-criticism, and shame are. They will be explored and addressed in future session but for now just realize how everyone of us |

| | | | |
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| | | | will have to deal with these hindrances during this path. There is nothing wrong with that |
| 10 | Homework | | ✓ Read the handouts of reality check and three circle and how it lands for you<br>✓ Intention?<br>✓ The "green diary"<br>✓ One green activity a day?<br>✓ MP3 with a short track of "stilling and starting the compassionate path" |
| 5 | Wrap-Up | | ✓ Little "stilling" exercise<br>✓ Intention exercise<br>✓ One sentence: "What do I take home from today's session (because I feel it' going to be helpful)?"<br>✓ acknowledging myself for just being here |

<table>
<tr><th colspan="4">Session 3: Mindfulness and SRB</th></tr>
<tr><th>Min.</th><th>Main points</th><th>Psychoeducation</th><th>Practices</th></tr>
<tr><td>5</td><td>Soft landing</td><td></td><td>✓ landing<br>✓ intention exercise</td></tr>
<tr><td>10</td><td>Homework Revision & reflections</td><td>✓ Changes during the week?<br>✓ Possible resistances?<br>✓ Was it useful?</td><td>✓ Everyone shares at least one “green activity” during the week→notice the change when you talk about it (both in you and other participant)<br>✓ Compassionately share possible resistances (validating and de-shaming: it’s normal)</td></tr>
<tr><td rowspan="2">30</td><td rowspan="2">mindfulness</td><td>✓ Attention as a spotlight<br>✓ Attention as an amplifier</td><td>✓ moving attention (body)<br>✓ moving attention (memories)<br>✓ maybe some exercise on making them realize that when they “try to solve” the negative it might get bigger<br>✓ asking them to amplify something positive?</td></tr>
<tr><td>✓ mindfulness and mind awareness</td><td>✓ mindfulness of body sensations<br>✓ mindfulness of senses<br>✓ MAYBE: mindful eating<br>✓ MAYBE: Body awareness: the body scan<br>✓ EXAMPLES: emotions run the show”<br>✓ Emotions labelling (acknowledging the “good intention” of the thought</td></tr>
<tr><td>30</td><td>SBR and other CFT body-based practices</td><td>✓ Compassion focused body practices: how to prepare the body to compassion</td><td>✓ Body postures<br>o And working with them: imagine something negative and take that posture→then, gradually, assume a “compassionate power pose” while still thinking and feeling the negative: what happens to your emotions? What happens in general?<br>✓ Soothing breathing rhythm<br>✓ Using Facial Expression and voice tones<br>✓ MAYBE: Working with our memories/emotions through the body (see how things change when we move our body)</td></tr>
<tr><td>10</td><td>Homework</td><td></td><td>✓ Listening once a day to the MP3 of SBR & al.<br>✓ Focused once a day on the motivation<br>✓ One mindful eating during the week</td></tr>
</table>

| | | | |
|---|---|---|---|
| 5 | Wrap-Up | | ✓ Little “stilling” exercise: SBR + brief compassionate self→ compassion for the self<br>✓ One sentence: “What do I take home from today’s session (because I feel it’ going to be helpful)?”<br>✓ Intention exercise<br>acknowledging myself for just being here |

| Session 4: Compassion from Others | | | |
|---|---|---|---|
| **Min.** | **Main points** | **Psychoeducation** | **Practices** |
| 5 | Soft landing | | ✓ SBR<br>✓ Little practice with the facial expression<br>✓ Remembering 3 intentions |
| 10 | Homework Revision | ✓ Changes during the week?<br>✓ Possible resistances?<br>Was it useful? | ✓ discussion |
| 25 | Safeness – safety? | ✓ Safeness – safety?<br>✓ Note on imagination<br>o No clear pictures<br>o Chemical effects<br>o Imagination as exploration | ✓ What are the differences for you?<br>✓ Safe place<br>✓ Bringing people in and out of the safe place |
| 35 | STARTING PRACTICING<br>The flow of compassion | ✓ The flow of compassion | ✓ Brief discussion using the slides |
| | | ✓ Compassion from others | ✓ Using memory (and then share with the group?<br>✓ Build a compassionate image (write following the template)<br>✓ Visualize the compassionate image<br>✓ Imagining relating to inner compassionate images and figures<br>✓ Engaging with compassionate figures and images and noting fears blocks and resistances<br>✓ Compassionate Group and compassionate belonging |
| 10 | Homework | | ✓ SBR + Meeting with your compassionate image DAILY **(MP3)**<br>✓ MAYBE: Thinking about compassionate person during the day→ feeling gratitude<br>✓ MAYBE: remembering compassionate others in my life |
| 5 | Wrap-Up | | ✓ Little "stilling" exercise: SBR + brief compassionate self→ compassion for the self<br>✓ One sentence: "What do I take home from today's session (because I feel it' going to be helpful)?" |

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|---|---|---|---|
| | | | ✓ Intention exercise acknowledging myself for just being here |

| **Session 5: Compassionate Self** | | | |
|---|---|---|---|
| **Min.** | **Main points** | **Psychoeducation** | **Practices** |
| 5 | Soft landing | | ✓ stilling- SBR- say hello to your compassionate figure<br>✓ Little practice with the facial expression<br>✓ Remembering 3 intentions |
| 10 | Homework revision | ✓ Changes during the week?<br>✓ Possible resistances?<br>✓ Was it useful? | ✓ discussion |
| 30 | Compassion as a brain pattern | ✓ Recognising the different patterns that our brain makes and takes<br>✓ Compassion as a brain pattern→building the compassionate self<br>✓ Compassion intention without a feeling. | ✓ Using Memory for Compassion pattern<br>✓ Flourishing imagery<br>✓ Discussion on the big 3<br>✓ Acting and compassion focusing → with walking<br>✓ Compassionate self visualisation |
| 30 | Compassionate self at work | ✓ Using the Compassionate Self | ✓ Imagining coming here with the compassionate self<br>✓ Working in pairs with compassionate self.<br>✓ Putting the compassionate self to work<br>✓ Worksheet: where could I use it? |
| 10 | Homework | | ✓ Setting the independent practice for the week<br>✓ SBR + becoming your compassionate self DAILY **(MP3)**<br>✓ Diary: when I used it<br>✓ Sensory linkage |
| 5 | Wrap-up | | ✓ Little “stilling” exercise: SBR + brief compassionate self→ compassion for the self<br>✓ One sentence: “What do I take home from today’s session (because I feel it’ going to be helpful)?”<br>✓ Intention exercise acknowledging myself for just being here |

| Session 6: Self-Criticism | | | |
|---|---|---|---|
| **Min.** | **Main points** | **Psychoeducation** | **Practices** |
| 5 | Soft landing | | ✓ SBR<br>✓ Little practice with the facial expression<br>✓ Remembering 3 intentions<br>✓ Activating the compassionate self |
| 10 | Homework Revision | ✓ Changes during the week?<br>✓ Possible resistances<br>✓ what was useful? | |
| 10 | Self-Monitoring | ✓ Fear and resistances<br>✓ Process and functions of self-monitoring<br>✓ Exploring ideals and disappointments as SC triggers<br>✓ Comparing ourselves as triggers<br>✓ Working on internalisation | ✓ GROUP DISCUSSION: If you could be more supportive and helpful or kind to yourself would that help you: What would get in the way?<br>✓ EXPERIENTIAL EXERCISE: Game with juggling balls of various could<br>● Debriefing:<br>● "Where was your attention during the game?"<br>● What thoughts came up?"<br>● "How would you have ideally wanted to play?"<br>✓ MEDITATION: Switching to the compassionate mind |
| 25 | Functional analysis of self-criticism | ✓ Triggers, functions and effects of self-criticism<br>✓ Anticipatory and ruminative self-criticism | ✓ Flipchart: Triggers of self-criticism<br>✓ Worksheet and imagination for the inner critic<br>✓ Worksheet and imagination for the compassionate self<br>✓ Debriefing:<br>o Blocking and grief<br>o Use two schools example |
| 10 | | ✓ Differentiating between compassionate self-correction and shame-based self-criticism<br>✓ Coping with and changing self-critical processes | ✓ Example: School<br>✓ Write something frustrating that happened to you and then first write the Shame based self-criticism response and then the Compassionate self-correction response point by point<br>✓ PHYSICAL EXERCISE: maintain posture and facial expressions when you hear self-critical attacks<br>✓ Create Flashcards |
| 25 | Compassionate Self | ✓ Holding the critic with compassionate self | ✓ VISUALIZATION<br>✓ VISUALIZATION |

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| | | ✓ compassion for the criticised part of you | o Discussion, clarifications |
| 10 | Homework | | ✓ Diary of self-critical situations: what makes me self-critical?<br>o How many times I shifted to the compassionate self?<br>✓ SBR + becoming your compassionate self for self-critic and for the criticized parts DAILY **(MP3)** |
| 5 | Wrap-Up | | ✓ Little "stilling" exercise: SBR + brief compassionate self→ compassion for the self<br>✓ One sentence: "What do I take home from today's session (because I feel it' going to be helpful)?"<br>✓ Intention exercise<br>✓ acknowledging myself for just being here |

| Session 7: Shame | | | |
|---|---|---|---|
| **Min.** | **Main points** | **Psychoeducation** | **Practices** |
| 5 | Soft landing | | ✓ SBR<br>✓ Little practice with the facial expression<br>✓ Remembering 3 intentions<br>✓ Activating the compassionate self for the critic |
| 10 | Homework Revision | ✓ Changes during the week?<br>✓ Possible resistances what was useful? | ✓ discussion |
| 10 | Introduction of shame | ✓ Nature of shame: Evolutionary background, triggers, bodily experience, behavioural reactions | ✓ Experiential exercise: "Imagine that you have to reveal a shame experience in group"<br>✓ Debriefing:<br>o "What did you feel in your body?"<br>o What did you think?"<br>o What did you want to do?" |
| 25 | faces of shame | ✓ Ideal self – actual self – unwanted self | ✓ Group work (2-3 participants) with worksheet |
| | | ✓ Functional analysis of shame | ✓ Individual worksheet of shame triggers, shame reactions → how did shame impact my life |
| | | ✓ Shame vs. Guilt | ✓ Same scenarios and then shame response/ guilt response<br>✓ Quiz in small groups with examples like TOSCA |
| 25 | Healing Shame | ✓ Reconnecting with group | ✓ Activating the compassionate self in everyone and the, from that position: Sharing a real shame experience in group (not the worst of course) |
| | | ✓ Reconnecting with human nature→ the "power of vulnerability"<br>✓ The "cost" of not accepting our human vulnerability→dissociat ion | ✓ Imagination exercise: We all have shame experiences |

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| | | ✓ Self-Forgiveness | ✓ Think about something you are not forgiving yourself about<br>✓ Writing a compassionate note to myself specifically regarding a shameful experience → if you don't know how to forgive, write your willingness to forgive, your intention to do it. |
| 10 | Homework | | ✓ Practise reconnection and self-forgiveness→ diary<br>✓ SBR + becoming your compassionate self for things you would be ashamed of- DAILY **(MP3)**<br>✓ Compassionate self-forgiveness **(MP3)**<br>✓ reconnecting with the Compassionate Self and then "share" or "say" on purpose something to someone every day that you would naturally hide (not a major thing)→ focus on the compassionate goal to free yourself |
| 5 | Wrap-Up | | ✓ Little "stilling" exercise: SBR + brief compassionate self→ compassion for the self<br>✓ One sentence: "What do I take home from today's session (because I feel it' going to be helpful)?"<br>✓ Intention exercise<br>acknowledging myself for just being here |

| Session 8: Multiple Selves | | | |
|---|---|---|---|
| **Min.** | **Main points** | **Psychoeducation** | **Practices** |
| 5 | Soft landing | | ✓ SBR<br>✓ Little practice with the facial expression<br>✓ Remembering 3 intentions<br>✓ Activating the compassionate self for vulnerable parts of us |
| 10 | Homework Revision | ✓ Changes during the week?<br>✓ Possible resistances<br>✓ what was useful? | ✓ discussion |
| 10 | multiplicity | ✓ In interpersonal arguments, multiple emotions are present. | ✓ Ask: how many "self" do we have.? And what is "the real one"→showing natural multiplicity (from a "real self" to a self that I need in his moment")<br>✓ In pairs: Tell each other about an argument you had with a person you cared about.<br>✓ Flipchart: "What emotions were present?" |
| 35 | Aspects of different selves and their conflicts/interactions and compassionate healing | ✓ Each emotion has associated feelings and body states, behaviours and actions as well as underlying needs. | ✓ In small groups: Create a poster of the aspects of one emotion (Sadness, anxiety or anger) and present it to the large group – acting included.<br>✓ How compassionate self sees the other self?<br>o Both written and visualized<br>✓ VISUALIZATION: THEATRE |
| | | ✓ Helping the client identify conflicts<br>✓ Avoided emotions | ✓ Elicit anxious beliefs about emotions on the flipchart<br>✓ Which is your preferred emotion when coming under threat? Which emotions would you least like to have to feel or work with?<br>✓ Flipchart on: risks of feeling those emotions and risk of avoiding or suppressing those emotions |
| | | ✓ Discover conflicts between the emotions in the presented argument | ✓ Imagination exercise with individual worksheet<br>✓ How the compassionate self sees the conflicts? |

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| 15 | Compassionate healing through the body | ✓ Perspective of the compassionate self: empathetic bridging and mentalising | ✓ Individually: meditation on softening around the emotion in the body –creating space<br>✓ Creating compassionate mantras |
| 10 | Homework | | ✓ Awareness of multiplicity→ diary<br>✓ SBR + becoming your compassionate self for the different parts of us that struggle **(MP3)** |
| 5 | Wrap-Up | | ✓ Little "stilling" exercise: SBR + brief compassionate self→ compassion for the self<br>✓ One sentence: "What do I take home from today's session (because I feel it' going to be helpful)?"<br>✓ Intention exercise acknowledging myself for just being here |

| Session 9: Deepening self-compassion | | | |
|---|---|---|---|
| Min. | Main points | Psychoeducation | Practices |
| 5 | Soft landing | | ✓ SBR<br>✓ Little practice with the facial expression<br>✓ Remembering 3 intentions<br>✓ Activating the compassionate self for vulnerable parts of us<br>✓ |
| 10 | Homework Revision | ✓ Changes during the week?<br>✓ Possible resistances what was useful? | ✓ discussion |
| 20 | Introduction | ✓ Self-Compassion vs. Self-Soothing<br>✓ Misunderstandings about self-compassion | ✓ Reflection in pairs: What is your first impulse in difficult situations?<br>✓ Reflection in group: Is this impulse self-compassionate?<br>✓ IMAGERY: being in front of me when I struggle→ what would I wish to that person |
| 10 | | ✓ Intentions of self-compassion | ✓ Interviews in pairs: How do I want to be in ten years? |
| 30 | interventions to deepen self-compassion | ✓ Self-compassion in the body | ✓ Compassionate body scan<br>✓ Compassionate yoga postures<br>✓ VISUALIZATION: compassion for our emotions and/or pain |
| | | ✓ Compassionate letter writing | ✓ Write a letter covering the following topics:<br>- I acknowledge the difficulty of…<br>- I understand…<br>- My intention is…<br>To get there I could…<br>✓ Reading compassion in pairs |
| | | ✓ Self-compassion using pictures or mirrors or mantras | ✓ Self-compassion using picture "look at those eyes: what were the needs? What were the fears? Now imagine that you become your compassionate self and go there and talk with that child.<br>✓ OR: MIRROR EXPLORATIONS<br>✓ AND/OR creating mantras (like flash cards) to use when needed |
| 10 | Homework | | ✓ Moments of self-compassion→ diary |

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| | | | ✓ SBR + becoming your compassionate self for the different parts of us that struggle (MP3)<br>✓ Brief Mirror meditation daily using mantras: it's not the feeling but the intention of activating the compassionate self in front of your image |
| 5 | Wrap-Up | | ✓ Little "stilling" exercise: SBR + brief compassionate self→ compassion for the self<br>✓ One sentence: "What do I take home from today's session (because I feel it' going to be helpful)?"<br>✓ Intention exercise<br>✓ acknowledging myself for just being here |

| Session 10: Compassion for Others | | | |
|---|---|---|---|
| **Min.** | **Main points** | **Psychoeducation** | **Practices** |
| 5 | Soft landing | | ✓ SBR<br>✓ Little practice with the facial expression<br>✓ Remembering 3 intentions<br>✓ Activating the compassionate self for vulnerable parts of us |
| 10 | Homework Revision | ✓ Changes during the week?<br>✓ Possible resistances what was useful? | ✓ discussion |
| 10 | Introduction | ✓ Review compassionate intentions.<br>✓ High shame and self-criticism can result in a strong self-focus and dominant or submissive behaviour. | ✓ Experience dominance/submission: Tell each other about the last week with one standing on a chair.<br>✓ Debriefing:<br>✓ "How did you feel in your position?"<br>✓ "Compassion requires seeing each other at eye level."<br>✓ Discussing resistances to that |
| 5 | Compassion for others | ✓ Revisit the two psychologies of compassion and what blocks them<br>✓ The role of "deservingness" | ✓ Worksheet on deservingness of others—deservingness of ourselves—EXPANDING THE CONCEPT OF DESERVINGNESS→linking it to the reality checks of CFT |
| 10 | Empathy<br>shifting from empathy to compassion | ✓ Affective empathy as the capacity to recognize the emotions that are being experienced by others. | ✓ In groups of 4-5: Think of something emotional, group tries to detect the emotion. |
| 10 | | ✓ Cognitive empathy as perspective taking and mentalizing | ✓ Watch short video-clips and practice perspective taking in group.<br>✓ What does the person think?<br>✓ What does the person feel?<br>✓ What might her intentions be? |
| 20 | Compassion for others in difficult situations | ✓ Forgiveness?<br>✓ Forgiveness and self-forgiveness | ✓ In pairs: Tell each other about an argument you had with a person you cared about (see session 8).<br>✓ What might the feelings, thoughts, needs and intentions of the person have been?<br>✓ Shifting to Forgiveness or intention |

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| 10 | compassion in action | ✓ The importance of shifting during daily life | ✓ Going out for 20 minutes, see neutral people around us, focusing on the compassionate self→ sending them compassionate wishes |
| 10 | Homework | | ✓ Moments of compassion for others→ diary<br>✓ “people I’m willing to forgive”<br>✓ SBR + becoming your compassionate self → sending compassion to difficult people in our life **(MP3)** |
| 5 | Wrap-Up | | ✓ Little “stilling” exercise: SBR + brief compassionate self→ compassion for the self<br>✓ One sentence: “What do I take home from today’s session (because I feel it’ going to be helpful)?”<br>✓ Intention exercise<br>✓ acknowledging myself for just being here |

| Session 11: Compassionate Communication | | | |
|---|---|---|---|
| **Min.** | **Main points** | **Psychoeducation** | **Practices** |
| 5 | Soft landing | | ✓ SBR<br>✓ Little practice with the facial expression<br>✓ Remembering 3 intentions<br>✓ Activating the compassionate self for the self and others |
| 10 | Homework Revision | ✓ Changes during the week?<br>✓ Possible resistances what was useful? | ✓ discussion |
| 10 | Introduction | ✓ Basics for compassionate communication | ✓ Small groups: What blocks compassion in relationships? |
| 15 | Observe | ✓ Describe what does not contribute to your well-being: Observing Without Evaluating | ✓ In small groups: Tell each other about something you find difficult with a person you care about.<br>- Task for listeners: Listen mindfully and empathically<br>- Task for speaker: Find a way to non-judgementally describe what is difficult.<br>- Distinguishing Observations from Evaluations |
| 20 | Needs and feelings | ✓ Understand human needs and feelings as signals to express that needs are met/unmet. | ✓ In small groups: Create a poster of one need and present it to the large group |
| | | ✓ Expressing needs and feelings as a compassionate self<br>✓ Receiving requests from others compassionately | ✓ In small groups: Which needs are not met in the situation you shared earlier? Which emotions does this elicit?<br>o Expressing Feelings<br>o Acknowledging Needs |
| 15 | Request | ✓ Asking for what you need<br>✓ Requests Versus Demands | ✓ In small groups: Role play a situation, in which you express those needs/emotions and ask for what you need. |
| 10 | Homework | | ✓ SBR + becoming your compassionate self **(MP3)** |

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| | | | ✓ Using compassionate communication (DIARY) |
| 5 | Wrap-Up | | ✓ Little "stilling" exercise: SBR + brief compassionate self→ compassion for the self<br>✓ One sentence: "What do I take home from today's session (because I feel it' going to be helpful)?"<br>✓ Intention exercise<br>✓ acknowledging myself for just being here |

<table>
<tr><th colspan="4">Session 12: Wrap-Up</th></tr>
<tr><th>Min.</th><th>Main points</th><th>Psychoeducation</th><th>Practices</th></tr>
<tr><td>5</td><td>Soft landing</td><td>✓</td><td>✓ SBR<br>✓ Little practice with the facial expression<br>✓ Remembering 3 intentions<br>✓ Activating the compassionate self for the self and others</td></tr>
<tr><td>10</td><td>Homework Revision</td><td>✓ Changes during the weeks?<br>✓ Possible resistances what was useful?</td><td>✓</td></tr>
<tr><td>15</td><td>Prevention Strategies</td><td>✓ Self-Compassion is taking care of oneself in daily life and not occasional wellness (e.g. doing sports, getting enough sleep, taking breaks).</td><td>✓ Interview in pairs: What do I need to get there? What helps me to a greater well-being?<br>✓ Worksheet: List individual prevention strategies.</td></tr>
<tr><td>15</td><td>Emergency Strategies</td><td>✓ Self-Compassion in difficult situations sometimes requires actions in opposite to the impulse.</td><td>✓ Reflection in pairs: Which are the situations in which you need self-compassion the most?<br>✓ What would a compassionate behaviour be?</td></tr>
<tr><td>15</td><td>envisioning a compassionate future</td><td>✓ The importance of motivation</td><td>✓ compassion self-the purpose worksheet</td></tr>
<tr><td>15</td><td></td><td>✓</td><td>✓ In the group each person is given the opportunity to share:<br>o What were your expectations and what did you learn<br>o What did you find difficult in the training<br>o What can help you to continue to practice<br>o Is there a symbol or an object that expresses what has been valuable for you</td></tr>
<tr><td>10</td><td>Feeling related</td><td></td><td>✓ Self-gratitude letter→ Reading out loud<br>✓ Reading of poems or reflections collected during the path<br>✓ compassionate wishes in circle</td></tr>
<tr><td>5</td><td colspan="3">Wrap-Up & goodbye</td></tr>
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# APPENDIX B: Journal Article

An exploration of mechanisms of change in Compassion Focused Therapy groups:

A pilot study in a college counseling center population

Jennifer Jensen

ABSTRACT

**Objectives.** This study explored mechanisms of change for Compassion Focused Therapy (CFT) groups. The feasibility and acceptability of a new group therapy protocol were assessed in a college counseling center population.

**Method.** Seventy-five participants engaged in eight transdiagnostic CFT groups. Group CFT consisted of 12 weekly sessions. Participants completed measures of fears of compassion, flows of compassion, self-reassurance, self-criticism, shame, and psychiatric distress at pre, mid, and post time points. Significant and reliable change was assessed. Potential mechanisms of change were examined using correlations. Self-report feasibility and acceptability data were collected from therapists and participants respectively.

**Results.** Significant and reliable change was found for fears of self-compassion, fears of compassion from others, fears of compassion to others, self-compassion, compassion from others, self-reassurance, self-criticism, shame, and psychological distress. Improvements in fears and flows of compassion predicted improvements in self-reassurance, self-criticism, shame, and psychiatric distress. The protocol was judged to be feasible and acceptable.

**Conclusion.** The new CFT group protocol appears to be feasible, acceptable, and effective in a transdiagnostic college counseling center population. The identified mechanisms of change supports the theory of CFT that transdiagnostic pathological constructs of self-criticism and shame can be decreased by decreasing fears and increasing flows of compassion.

Compassion Focused Therapy is a 3rd wave therapy which combines traditional Buddhist teachings about mindfulness and compassion with aspects of cognitive behavioral therapy and functional analytic psychotherapy (Gilbert & Irons, 2005). CFT has theoretical underpinnings include attachment theory, evolutionary psychology, and social mentality theory (Gilbert 2014). Compassion is defined as sensitivity to suffering combined with a commitment to alleviate it, and CFT focuses on cultivating each of these to components. First, patients must have a motivation to engage with suffering and the ability to approach and tolerate it. Second, patients must have a corresponding commitment to act in a way to alleviate and prevent suffering along with the skills to do this successfully (Gilbert, 2014). CFT uses psychoeducation, emotional modeling, meditative and imagery practices, and experiential therapy to help patients gain insight and build compassionate capacity (Gilbert & Irons, 2005).

CFT was developed to address the transdiagnostic pathological processes of self-criticism and shame that can contribute to and maintain a range of mental health problems (Gilbert & Procter, 2006). The association between shame, self-criticism, and psychopathology has been well-established by research (e.g., Allan & Gilbert, 1997; Gilbert et al., 2010; Kelly & Carter, 2012; Lucre & Corten, 2013; Pinto-Gouveia, Matos, Castilho, & Xavier, 2014), particularly depression (e.g. Kelly, Zuroff, & Shapira, 2009; Marshall, Zuroff, McBride, & Bagby, 2008). Self-criticism is the perception of the self as inadequate or inferior leading to internal dialogue directed at self-correction or self-attacking (Castilho, Pinto-Gouveia, & Duarte, 2016). Shame is the perception of our self as unattractive, undesirable, incompetent, or inadequate in some way and creating negative emotions in the mind of the other—anger, disgust, contempt, ridicule (Gilbert, 2007). CFT counteracts self-criticism and shame by helping patients build the capacity to experience compassion, thus activating the caregiving system to regulate and reassure the self.

CFT is transdiagnostic in nature and research has found a significant reduction in symptoms such as anxiety, depression, self-criticism, shame, inferiority, submissive behavior, and overall distress as well as increases in self-compassion, self-esteem, and self-reassurance (e.g. Gilbert & Procter, 2006; Laithwaite et al., 2009; Mayhew & Gilbert, 2008; Heriot-Maitland, Vidal, Ball, & Irons, 2014; Braehler et al., 2013; Judge, Cleghorn, McEwan, & Gilbert, 2012, 2012; Lucre & Corten, 2013).

CFT is also an effective group intervention (e.g., Ashworth, Gracey, & Gilbert, 2011; Gale, Gilbert, Read, & Goss, 2014, 2014; Lucre & Corten, 2013; Mayhew & Gilbert, 2008; Braehler et al., 2013). Recent research has also begun to explore the effectiveness of CFT with transdiagnostic groups (Heriot-Maitland et al., 2014; Judge et al., 2012; Cuppage et al., 2018; McManus, Tsivos, Woodward, Fraser, & Hartwell, 2018). This is beneficial in many settings as it allows clients with more complex or multiple difficulties to be included because the treatment targets underlying psychological constructs (i.e. shame and self-criticism) rather than symptoms. It also allows clients to benefit from effective interventions without needing to restrict group participation to a single diagnosis or wait for enough referrals of a specific type for a group to be started.

Despite the significant research base for CFT, it has yet to be assessed in a college counseling center (CCC) population. A few studies have been done in non-clinical student populations, showing CFT increases self-compassion and decreases negative thoughts and emotions (Arimitsu, 2016) and that self-compassion was negatively correlated with eating disorder pathology in college samples (Ferreira, Pinto-Gouveia, & Duarte, 2013; Wasylkiw, MacKinnon, & MacLellan, 2012). However, no studies have directly implemented CFT interventions into a college counseling center.

Although CFT has been studied for decades, several limitations have prevented it from producing high quality, adequately powered randomized controlled trials (RCT). The largest and most pressing concern is the lack of a consistent manual. Researchers trained in CFT by Dr. Gilbert created and tested various treatment protocols for compassion focused therapy (e.g. Gilbert & Procter, 2006; Braehler et al., 2013, Judge et al., 2012; Lucre & Corten, 2013). However, there is no consistency among these protocols in content presented, exercises used, number of sessions, etc., and each protocol was typically used for a single study. Additionally, many compassion studies fail to measure protocol adherence to determine the fidelity of intervention delivery (Kirby, Tellegen, & Steindl, 2017). Without a consistent manual, research on Compassion Focused Therapy has been unable to get past the feasibility stage and into the RCT stage.

Another limitation in the CFT research base is inadequate evidence of the mechanisms of change. The underlying theory of CFT posits that reducing an individual's fears of compassion and increasing their ability to engage with and enact compassionate will reduce the transdiagnostic effects of shame and self-criticism, leading to decreases in psychiatric distress. A few studies have begun investigating mechanisms of change and have found evidence that changes in self-reassurance, self-criticism, and fears of self-compassion predict changes in psychological distress (Sommers-Spijkerman, Trompetter, Schreurs, & Bohlmeijer, 2018; Cuppage et al., 2018). However, to this point most studies have used measures that failed to measure the multiple dimensions of compassion (i.e. they either measure "compassion" as a whole or only "self-compassion"), and few measured the fears and resistances to compassion. To our knowledge, no studies have looked at how the three flows of compassion predict outcomes.

***Current Study***

The current study strives to address these concerns by creating a CFT group manual in close collaboration with Paul Gilbert that can be consistently used over many studies, verifying the feasibility and acceptability of this manual, and confirming the proposed mechanisms of change by using measures that specifically measure each construct of interest. Additionally, outcomes were measured using both measures specifically designed for CFT and independent measures.

The primary aims of the current study were (1) to assess the feasibility and acceptability of a new 12-session transdiagnostic group CFT protocol in a college counseling center; (2) to determine its effects on levels of compassion, fears of compassion, self-reassurance, self-criticism, shame, and psychiatric distress; and (3) to explore the predictive abilities of the proposed mechanisms of change (i.e., fears and flows of compassion) on primary outcomes (i.e., self-criticism and shame) and distal outcome (i.e., psychiatric distress).

## Method

### *Participants*

Participants were students presenting for treatment at a university counseling center. Inclusion criteria included a primary presenting concern related to shame or self-criticism, willingness to have group be their primary mode of treatment during the study, and a psychiatric distress score above the clinical cutoff. Loss of participants over time occurred due to students choosing to discontinue in the study, failing to complete measures, or dropping out of groups. Clinicians registered 109 students for CFT groups; 91 signed up to participate in the study; 81 attended at least one group; 75 completed measures at the first time point; and 45 completed.

Of the 75 participants who completed measures, 73.5% were female. Race was 85.5% Caucasian, 7.2% Hispanic, 3.6% multiracial, 2.4% Native Hawaiian or Pacific Islander, and

1.2% Asian. Participants ranged in age from 18 to 29 with a mean of 22.7 years of age at the start of treatment. Primary presenting complaints were depression (28%), perfectionism (20%), anxiety (11%), interpersonal (9%), stress (4%), identity development (4%), trauma (4%), adjustment (2%), self-harm (2%), OCD (2%), emotional dysregulation (2%), and assorted others (12%). 99% identified as Christian.

***Treatment***

Participants were referred to the CFT groups by their individual therapists. Participants were assigned to groups based on their schedule availability. As group was the primary form of treatment during the study, participants were asked to meet with their individual therapists no more than once every three weeks. Participants engaged in a 12-session weekly outpatient CFT group. Each group was led by 2 doctoral-level psychologists experienced in group therapy. The primary leader in each group attended at least one CFT training with Dr. Paul Gilbert and co-leaders did self-study on the theory and practice of CFT. Groups had 7 to 14 participants with an average of 9.37 participants per group. Groups met from 120 minutes each session. Groups ran an average of 11.5 session as four groups combined sessions due to holidays and final exams. Participants were sent a link to a Qualtrics survey to sign a consent form and complete the first round of assessments. Additional Qualtrics surveys were sent after the 6th session (mid-treatment) and after the final session (post-treatment). Participants were sent a link to the OQ-45 once per week. Participants were considered dropouts if they missed three consecutive sessions. Participants that dropped out were further subdivided into "partial dropout" if they attended at least half of the sessions and "full dropout" if they attended less than half the sessions.

***Treatment***

Treatment first uses psychoeducation to help participants understand the nature of the human mind and the benefits of mindfulness and compassion. Participants then build the compassion skills through exercises, imagery, and guided meditation. These skills are then used to address psychopathology. Each session includes didactic, experiential, and discussion portions. Participants were also provided with handouts and worksheets for compassion practices as well as audio recordings of meditations and imagery exercises to be completed between sessions. Table 1 briefly overviews the topics and key elements of each session.

Table 1: Overview of group sessions

| Session Topic | Key Elements |
|---|---|
| 13. Compassion | Exploration of compassion: definition, fears of compassion |
| 14. Emotion Systems | Influences of evolved brain, genetics, and social context on behavior<br>Three emotion systems |
| 15. Mindfulness & Attention | Using attention intentionally for awareness and amplification<br>Use of soothing system to regulate activating systems |
| 16. Safeness vs Safety | “Safe place” imagery<br>“Compassionate Other” imagery |
| 17. Compassionate Self | “Compassionate Self” imagery |
| 18. Self-criticism | Exploration of self-criticism—purpose and effects<br>Using “compassionate self” imagery to address self-critic |
| 19. Shame | Exploration of shame & guilt<br>Addressing shame & guilt with Compassionate Self |
| 20. Multiple Selves | Exploring multiple emotions in threat system<br>Addressing multiple emotions through Compassionate Self |
| 21. Compassion for Self | Cultivating compassion for self<br>Compassionate letter writing |
| 22. Compassion for Others | Shifting from empathy to compassion<br>Compassionate forgiveness |

| | |
|---|---|
| 23. Compassionate Communication | Understanding and expressing needs and feelings<br>Asking for needs & responding to requests compassionately |
| 24. Continuing Compassion | Review and relapse prevention<br>Wrap-up and goodbyes |

### ***Measures***

*Feasibility and Acceptability*

*Fidelity Checks.* Fidelity checks were created for each session and were completed by therapists immediately following each session asking therapists to rate how well they covered each component of that session. Therapists also met each week as a treatment team to discuss adherence and acceptability with the primary researchers and to participate in CFT group supervision led by the three Gilbert-trained therapists.

*Participant Feedback.* At the end of each session, participants were asked to complete a brief, paper questionnaire with five questions rated on a 5-point Likert scale (0 = "not at all"; 5 = "very much"):

- How much did you enjoy this session?
- How useful will this session be in your daily life?
- How useful was the educational portion?
- How clear was the educational portion?
- How useful was the experiential portion?

*Mechanisms of Change*

***Fears of Compassion*** *(FCS; Gilbert, McEwan, Matos, & Rivis, 2011).* The FCS is designed to assess the fears, blocks, and resistances to compassion. The FCS has three subscales: Fear of Compassion for Self, Fear of Compassion from Others, and Fear of Compassion for

Others. Items are rated on a five-point Likert scale (0 = Don't agree at all, 4 = Completely agree). Gilbert gave Cronbach's alpha as 0.85 for fear of compassion for self; 0.87 for fear of compassion for others, and 0.78 for fear of compassion for others. The reliable change index for each subscale was calculated as 8.39 for fears of compassion for self, 6.85 for fears of compassion for others, and 6.96 for fears of compassion from others.

***The Compassionate Engagement and Action Scales*** *(CEAS; Gilbert et al., 2017).* The CEAS measures ability to engage with and act on compassion for self, compassion for others, and compassion from others. Participants rate each statement according to how frequently it occurs on a scale of 1 to 10 (1 = Never; 10 = Always). The scale has recently been validated with good Cronbach's alphas and factor structures. The reliable change indices for each subscale were calculated as 12.42 for compassion for self, 7.24 for compassion to others, and 7.60 for compassion from others.

*Primary Outcomes – CFT measures*

***Forms of Self Criticism and Self Reassuring Scale*** *(FSCRS; Gilbert et al., 2004).* The FSCRS has two subscales for self-criticism: Inadequate self, which measures the sense of personal inadequacy, and Hated self, which focuses on the desire to hurt or persecute the self. A third subscale, Reassured Self, measures the individual's ability to be self-reassuring and supportive when things go wrong. Items are scored using a five-point scale (ranging from 0 = not at all like me to 4 = extremely like me). Cronbach's alphas for the subscales are .90 for inadequate self, .86 for hated self and .86 for reassured self (Gilbert et al., 2004). The reliable change indices for each subscale were calculated as 4.34 for reassured self, 5.23 for inadequate self, and 3.36 for hated self.

*Primary Outcomes – Independent measures*

***Depressive Experiences Questionnaire 48 McGill Revision – Self Criticism Subscale*** *(DEQ; Santor, Zuroff, & Fielding, 1997)*. The self-criticism subscale assesses various aspects of self-criticism on a seven-point Likert scale ranging from 1 (strongly disagree) to 7 (strongly agree). Reliability coefficients were measured at .72 for men and .76 for women. The reliable change index was calculated as 15.58.

***Tests of Self-Conscious Affect – Shame Subscale*** *(TOSCA; Tangney, Dearing, Wagner, & Gramzow, 2000)*. This subscale asks respondents rate the likelihood of their shame response to brief scenarios on a five-point Likert scale ranging from 1 (“not likely”) to 5 (“very likely”). Internal consistencies (Cronbach’s α) for the full 16-item TOSCA-3 were reported ranging from.76 to .88 for shame-proneness in three samples of university students (Tangney & Dearing, 2002). The reliable change index for shame was calculated as 7.20.

*Distal Outcome*

***Outcome Questionnaire-45***. The OQ measures participant distress on interpersonal relations, symptom distress, and social role questions on a 7-point Likert scale. The OQ has a reported internal consistency of .93 and a test-retest reliability of .84 (Lambert & Ogles, 2004). The reliable change index for the OQ has been calculated as 14 points.

***Data Analyses***

Participant data was included if they met inclusion criteria and had a valid and complete pre-assessment within 21 days of the first session, resulting in 75 participants being included in these analyses. Missing data for mid and post assessments had the last observation carried forward. Data for the OQ had more missing data than other measures. Based on recommendation from researchers who use the OQ frequently (D. Erekson, Ph.D., personal communication, August 30, 2018) a window of 30 days before and 15 days after the first session and 15 days

before and 30 days after the final session was used to filter the OQ, resulting in 30 of the 75 participants being included in the OQ analyses. All analyses were done in SPSS 20. A significance level of .05 was selected.

**Feasibilty and acceptability.** Feasibility was assessed using means and standard deviations. Acceptability was assessed using means and standard deviations for participant feedback forms for each session, session attendance, and participant attrition.

**Measures of change.** Due to the nested nature of group therapy where individuals are situated within groups, we calculated the variance due to groups to determine whether the group effects were significant and whether data analyses needed to account for nesting. There were no significant group effects. This may be due to a variety of explanations, including the small sample size, the overlap in group leaders (each of the eight groups was co-facilitated by one of the three CFT trained therapists), of the strict focused paid to fidelity encouraged through fidelity checks and weekly meetings, which may have resulted in less focus on typical aspects like group climate.

All measures were assessed for change between timepoints. Each of the subscales related to the CFT literature (i.e. FCS, CEAS, and FSCRS) were measured at pre, mid, and post time points. For measures that can be evaluated at the overall and subscale level (i.e. FCS and CEAS) repeated measure MANOVAs were used to test for significant change in the whole scale and subscales. Wilks' lambda is reported for fully multivariate tests; Huynh-Feldt is reported for univariate tests. For measures that are assessed at the subscale level (i.e. FSCRS) a repeated measures ANOVA was used to test for significance and Wilks' lambda is reported. Independent measures of outcome (i.e. DEQ-SC and TOSCA Shame) which were assessed at pre and post time points were examined for change using paired t-tests. Finally, the distal outcome of

psychiatric distress (i.e. OQ) was measured at pre, mid, and post time points. A repeated measures ANOVA was used to test for significance and Wilks' lambda is reported. Effect sizes were calculated using Cohen's d in order to compare the effect sizes of the changes in compassion in this study with those calculated in previous studies.

Reliable change indices (RCI) are the number of points of change needed on a scale between administrations to show that real change has occurred rather than chance fluctuation (Jacobson et al., 1992). It is calculated using sample N, Cronbach's alpha, and the standard (RCI = (posttest – pretest) / $SE_{meas}$). Using RCIs, the number of participants who reliably improved, reliably deteriorated, or had no reliable change was calculated for each subscale.

Pearson correlations were used to explore the ability of change in compassion and fears of compassion to predict change in self-criticism, shame, and psychiatric distress.

## Results

### *Hypothesis 1: Feasibility and Acceptability*

The first aim of this study was to establish the feasibility and acceptability of this new protocol. Therapist fidelity scores ranged between "mostly present" and "fully present" (M=2.33 out of 3.00, SD=0.17). This suggests that therapists are generally able to cover the core concepts of CFT, while still allowing flexibility based on clinical judgment to adapt to the needs of a group to spend more or less time on a particular session topic.

Participant feedback about the enjoyment, usefulness, and clarity of each session averaged 4.11 out of 5.00 possible (SD = 0.53). This suggests that the treatment was generally well-received and acceptable.

On average, participants attended 56% of sessions. Of the 73 participants who attended at least one group, 61.6% completed the protocol (49.3% full completers and 12.3% partial

completers). Clinicians from the counseling center indicated that the attendance patterns seemed similar to previous groups they had run there and was likely due to the nature of university student's exam schedules, trips out of town for holidays or family visits.

***CCC compared to other literature means***

Given this was the first study to use a CFT intervention in a CCC population, we collected means from the literature and compared them to our pre-intervention means.

In measures related to both fears and flows of compassion, participants averaged scores between non-clinical and clinical means for self-compassion and compassion from others. However, for compassion to others their fears and flows were significantly better than the non-clinical undergraduate samples. Thus, they demonstrated more difficulties with self-compassion and compassion from others, but unusually high abilities with compassion to others suggesting a "ceiling effect" for the latter.

Participant scores followed a similar pattern for the outcome measures. For the FSCRS, study participants had significantly more difficulty than the undergraduate sample for all subscales. Their scores on hated self were not as severe as the clinical populations, but the scores for reassured self and inadequate self were similar to the clinical populations. Our participants had higher ratings of self-criticism than both the undergraduate and outpatient samples, although the latter may be due to the fact that the study was using individuals with remitted depression. Participants for this study also fell between the non-clinical and clinical samples for levels of shame. For psychiatric distress, our participants matched the norm for college counseling centers reported by the OQ.

***Hypothesis 2: Significant and Reliable Change***

The second aim of this study was to assess whether this intervention would create change in the expected dimensions. As expected, significant change was found for nearly all subscales. The one subscale that was not significant was CEAS compassion to others, likely due to a pre-treatment ceiling effect.

Previous literature on CFT has focused on pre-post effects, and thus reported effect sizes have typically been Cohen's d. In order to facilitate comparison with our present study, Cohen's d was calculated for each subscale (see Table 3). Cohen's (1988) suggested guidelines are commonly followed in interpreting these effect sizes: 0.2 for a small effect, 0.5 for a medium effect size, and 0.8 for a large effect size. A large effect was found for self-compassion. Medium effect sizes were found for fears of compassion, fears of self-compassion, compassion, reassured self, hated self, inadequate self, self-criticism, shame, and psychiatric distress. Small effects were found for fears of compassion from others, fears of compassion to others, compassion from others, and guilt. No significant effects were found for compassion to others.

Table 3: Significant change over time

| Measure | df | F | Sig. | Cohen's d |
|---|---|---|---|---|
| FCS[1] | 6 | 5.414 | 0.00 | -0.60 |
| Fears of self-compassion | 1.50 | 22.48 | 0.00 | -0.63 |
| Fears of compassion from others | 1.50 | 11.06 | 0.00 | -0.43 |
| Fears of compassion to others | 1.80 | 8.50 | 0.00 | -0.41 |
| CEAS[1] | 6 | 7.86 | 0.00 | 0.54 |
| Self-Compassion | 1.68 | 29.94 | 0.00 | 0.75 |
| Compassion from Others | 1.77 | 8.13 | 0.00 | 0.36 |
| Compassion to Others | 1.87 | 1.69 | 0.19 | 0.14 |
| FSCRS[2] | | | | |

| | | | | |
|---|---|---|---|---|
| Reassured Self | 2 | 15.67 | 0.00 | 0.63 |
| Hated Self | 2 | 15.33 | 0.00 | -0.62 |
| Inadequate Self | 2 | 18.76 | 0.00 | -0.71 |
| DEQ Self Criticism[3] | 74 | -2.26 | 0.00 | -0.59 |
| TOSCA Shame[3] | 74 | -2.05 | 0.00 | -0.48 |
| Outcome Questionnaire[2] | 2 | 8.26 | 0.00 | -0.63 |

[1]Repeated measures MANOVA, [2]Repeated measures ANOVA, [3]paired t-tests

The pre-post differences for each subscale were compared to the calculated reliable change index for that scale. Roughly a third of participants showed reliable increases in self-compassion and compassion from others and decreases in fears of self-compassion and inadequate self. About a quarter showed reliable decrease in fears of compassion from others, hated self, and self-criticism and a reliable increase in reassured self. Shame showed only 12% with a reliable decrease. Nearly half of the sample showed significant improvement on psychiatric distress.

***Hypothesis 3: Predictive abilities of changes in compassion***

The third aim of this study was to explore potential mechanisms of change from CFT theory. This was done by correlating our proposed mechanisms of change (i.e., fears and flows of compassion) with primary outcomes (i.e., self-criticism and shame) and distal outcome (i.e., psychiatric distress). Given that compassion to others did not show significant change across time points, it was not be considered in the following correlations. Additionally, although the OQ did show significant change across timepoints, with an average decrease of 10.8 points, it did not have any significant correlations with the mechanisms of change and thus is not further discussed in this section. In judging the effect sizes for Pearson's correlations, we followed the guidelines set out by Cohen (1988): small r = 0.1, medium r = 0.3, large r = 0.5.

In interpreting the correlations there were a number of patterns we expected to find based on CFT theory that improvements in compassion leads to changes in self-criticism, shame, and psychiatric distress. Based on this theory, we expected that either early changes in compassion would lead to ongoing or late change in outcomes or that change would be more immediate, creating a simultaneous shift in mechanisms and outcome. Finding that changes in outcome preceded changes in compassion would be contrary to our hypothesis.

As predicted, both the fears and flows of compassion to self and from others had medium to large correlations with shame and both CFT and independent measures of self-criticism. These followed the predicted trend of changing simultaneously (e.g., early change in self-compassion predicted early change in self-criticism). Typically the largest correlations were between overall change in both mechanisms of change and outcomes; these are reported in Table 4.

Table 4: Correlations between overall change in compassion and outcomes

| | to Self | | to Others | | from Others |
|---|---|---|---|---|---|
| | Fears | Flows | Fears | Flows | Fears |
| Reassured Self | -.58*** | 0.49*** | -0.30** | 0.23* | -0.36** |
| Hated Self | .52*** | -0.41*** | 0.26* | -0.15 | 0.38** |
| Inadequate Self | .72*** | -0.65*** | 0.51*** | -0.36** | 0.27* |
| DEQ Self-Criticism | .70*** | -0.63*** | 0.56*** | -0.46*** | 0.33** |
| TOSCA Shame | .55*** | -0.44*** | 0.47*** | -0.34** | 0.25* |

*p < .05 **p < .01 ***p < .001.

**Discussion**

The first aim of this study was to assess the feasibility and acceptability of a new 12-session transdiagnostic group CFT protocol in a college counseling center. Overall, scores from the self-

report fidelity measures indicated that they delivered most session components. Therapists indicated that lack of total adherence was typically due to in-session clinical judgment to focus in on a particular topic most relevant to participants' needs. Thus, therapists felt they were able to teach and practice the core CFT concepts from each session by choosing material from the manual most appropriate for their participants. This is a common practice in manualized treatments used with a wide variety of populations, and good therapists much be able to flexibly tailor material in a way that resonates for their patients.

Acceptability was assessed by participant ratings of sessions, attendance, and dropout rates. Based on the average session ratings of 4.31 out of a possible 5 points, it appears participants found the sessions enjoyable, useful, and clear. Attendance overall seemed to be good, with over a quarter of participants missing one or fewer groups and nearly 60% attending over half. Some missed sessions are expected given the setting: students frequently reported skipping groups for looming exams or project deadlines, going out of town to visit family, or other conflicts, and free services tend to lead to lower levels of commitment. In terms of attrition, 388% of participants were considered full dropouts. In Leaviss and Utley's (2015) systematic review, they found attrition rates ranging from 10-80%. They noted that some of the reasons given for attrition were reduced distress or feeling upset in session. McManus (2018) theorized that high attrition might be reflective of the difficulties many individuals encounter in CFT, particularly around fears and blocks of compassion (e.g. Lucre & Corten, 2013; Gilbert, 2014; Mayhew & Gilbert, 2008; McManus et al., 2018). Thus it is possible that higher attrition rates may also be an inherent risk of CFT protocols. Taking the feedback forms, attendance, and completion data together, it appears that overall participants found sessions enjoyable, useful,

and understandable, and that they were willing to continue attending groups and return after absences. This suggests that the acceptability of the protocol is satisfactory.

***CCC compared to the CFT literature***

As this is the first CFT study to be completed in a university counseling center population, we compared our means to those of previous studies in other populations. Our counseling center participants tended to occupy a unique position of more distress and difficulty than the non-clinical samples and generally less distress and difficulty than the clinical samples, as might be expected of participants from a college counseling center population (e.g. typically high functioning with high socioeconomic status). Of note, while our participants showed notable deficits in their fears and abilities for self-compassion and compassion from others, they actually performed better than other non-clinical undergraduates on fears and abilities for compassion to others. This is likely the reason that there was significant change in measures related to self-compassion and compassion from others, but not in compassion to others—our participants were already performing above their peer group, leaving less room for observable change (a ceiling effect).

The most likely explanation for this unusual ability in compassion to others is that our participants attend a church-owned and operated university where over 98% of students are active in their faith and a heavy emphasis is placed on service, kindness, and sacrifice for the good of all. Thus, the culture and environment of our participants likely have given them unusually amounts of practice and motivation for compassion to others, leading them to have unusual abilities in this flow of compassion.

***Significant and Reliable Change in Constructs***

The next aim of this study was to determine CFT's effects on levels of compassion, fears of compassion, self-reassurance, self-criticism, shame, and psychiatric distress. As expected, significant change in the expected direction was found in all subscales except for compassion to others. As previously noted, this is likely because scores on compassion to others were already remarkably high and likely suffered a ceiling effect. Thus, this hypothesis was supported, and it can be concluded that this protocol was successful at targeting the constructs intended by CFT.

***Effect Sizes***

Effect sizes were calculated to determine the magnitude of the significant change and compare them to previous literature on compassion-based interventions (Kirby et al., 2017). It is important to note three important differences between our effect sizes and the ones contained in this meta-analysis. First, the meta-analysis examined several compassion-based interventions, not just CFT. Second, they report an overall change in compassion, while we further subdivide it into compassion to others and compassion from others. Third, their effect sizes compare active intervention to waitlist control, while ours reflect pre-post change. Thus, effect sizes comparisons should be considered with caution.

Published effect sizes for change in self-compassion (d = .70) were comparable with our study's effect size (d = .75). However, published effect sizes for changes in compassion were smaller in this study (d = .14-.36) than in the meta-analysis (d = .55). Effect sizes for decreases in psychiatric distress were slightly higher in this study (d = .63) compared with the meta-analysis (d = .47). Taken together, this suggests that the current CFT protocol produced comparable change to other compassion-based interventions, although stronger effects were found on self-compassion.

***Predictive Abilities of Changes in Compassion***

The final aim of this study was to explore the predictive abilities of the proposed mechanisms of change (i.e., fears and flows of compassion) on primary outcomes (i.e., self-criticism and shame) and distal outcome (i.e., psychiatric distress). To our knowledge, this is the first study to examine the relationship between the three flows of compassion and self-reassurance, self-criticism, and shame. We hypothesized that changes in mechanisms would precede changes in outcomes, or that they would occur somewhat simultaneously if the changes in compassionate abilities created a rapid reduction in self-criticism and shame. And in fact, the correlations nearly all supported a change occurring at the same time and in some cases the mechanisms changing before. This was true of both the CFT measures of self-criticism and the independent measures of self-criticism and shame. Of note, the largest correlations were found in the fears and flows of self-compassion. Thus, there is evidence in support of the theory of CFT that reducing patients' fears of compassion and increasing their ability to engage and act in the flows of compassion directly leads to a decrease in the primary outcomes of self-criticism and shame.

***Limitations***

Several limitations to this research should be considered. First, as a pilot study, there was only one treatment condition and no control or waitlist group. Thus, there is no way to determine how much change resulted from the intervention and how much would have otherwise occurred. However, given the relatively short time period during which the intervention occurred and the clinical levels of distress, shame, and self-criticism that participants reported, it seems unlikely that such change would have occurred spontaneously. This is especially true as interventions ended during final exams when students typically express higher distress. Future studies with control or waitlist conditions will aid in clarifying the effectiveness of the intervention.

Additionally, participants were highly educated college students, white, young, religious, from mostly higher socioeconomic backgrounds and caution should be used in extending the results of this study to other populations. However, given the consistent success of CFT across a wide diversity of settings, ages, diagnoses, and countries, it is likely that this protocol would have similar results in other populations.

A final limitation were the difficulties inherent in doing research in a real world clinical setting (e.g., groups being cancelled for exam schedule or holidays, requiring sessions to be condensed). Such issues are common in clinical research, and while on the one hand they reduce fidelity and clarity in the research, they also show the ability of an intervention to succeed in a real world setting where flexibility is required and imperfection is inevitable. The results obtained in this study are a testament to the potential of this intervention to help clients even without ideal research conditions.

### *Future Directions*

From this beginning, this pilot study was always meant to be the beginning of a larger program of research designed to move CFT group therapy into the realm of RCTs. A revised manual was created using feedback from our therapists and it is currently being used for various disorders (e.g., borderline personality disorder and eating disorders) in various populations (e.g., seriously mentally ill, college counseling center, veteran, and LGBT+) in various countries (e.g., USA, Italy, Australia, and the Netherlands). This series of studies using a common manual will begin the process of building a strong foundation of empirical validation for future RCTs.

There are also a number of other relationships and constructs that could be explored through mediator and moderator analyses. For example, the relationship between the mechanisms of change (i.e. fears and flows of compassion), primary outcomes (i.e. self-criticism

and shame), and distal outcome (i.e psychiatric distress) could be explored to determine if in fact the primary outcomes mediate the relationship between mechanisms of change and psychiatric distress, rather than there being a direct connection.

Future research could also look for dose effects relating to compassion, such as the impact of attendance or outside practice on compassion or outcomes. The idea of compassion as a skill than can be cultivated combined with compassion as the mechanism of change for decreasing self-criticism and shame would suppose that individuals who spend more time developing compassion should show greater gains. It is therefore hoped that future research can clarify the relationship between compassion practices and psychiatric improvements.

### *Conclusion*

Overall, this pilot study was deemed to be a successful first use of the new CFT group protocol. Therapists were able to administer the protocol with good fidelity, and their suggestions have been incorporated into revising the manual for future randomized clinical trials. Participants reported finding the sessions enjoyable, useful, and clear. Attendance was sporadic at times, but there was a general pattern of returning to group even after missing several sessions, indicating that participants found value in the treatment. Significant changes were found as expected in various constructs: increases in compassion and self-reassurance and decrease in fears of compassion, self-criticism, shame, and psychiatric distress. Most of these changes demonstrated medium to large effect sizes. Finally, the mechanisms of change for CFT (three flows of compassion) significantly predicted changes in self-criticism and shame, with most correlations being medium to large in size.

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