

Using Compassion Focused Therapy as an adjunct to Trauma-Focused CBT for Fire Service Personnel suffering with symptoms of PTSD

Elaine Beaumont MSc¹

Mark Durkin MSc²

Sue McAndrew PhD³

Colin Martin PhD⁴

¹Cognitive Behavioural Psychotherapist, EMDR Europe Approved Practitioner and Lecturer in Counselling and Psychotherapy, School of Nursing, Midwifery, Social Work & Social Sciences. University of Salford, Frederick Road, Salford, Greater Manchester, UK, M6 6PU. E-mail: E.A.Beaumont@salford.ac.uk

²Group therapy co-ordinator at MhIST, Psychology graduate. University of Bolton BL3 5AB. (MAD1HSS@bolton.ac.uk)

³Reader in Mental Health Care. School of Nursing, Midwifery, Social Work & Social Sciences. University of Salford, Frederick Road, Salford, Greater Manchester, UK, M6 6PU. S.McAndrew@salford.ac.uk

⁴Professor Colin Martin. The Director of the Institute of Mental Health. Bucks New University. C.Martin@bucks.ac.uk

Corresponding author

Elaine Beaumont, School of Nursing, Midwifery, Social Work & Social Sciences. Mary Seacole (Room MS3.17), University of Salford, Frederick Road, Salford, Greater Manchester, UK, M6 6PU. E-mail: E.A.Beaumont@salford.ac.uk

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Abstract

Background: Individuals working for the emergency services often bear witness to distressing events. This outcome study examines therapeutic interventions for Fire Service Personnel (FSP) experiencing symptoms of trauma, depression, anxiety and low levels of self-compassion.

Aims: To investigate the effectiveness of using compassion focused therapy (CFT) as an adjunct to trauma-focused cognitive behavioural therapy (TF-CBT) in reducing symptoms of trauma, anxiety and depression and increasing self-compassion.

Method: A convenience sample (n=17) of participants, referred for therapy following a traumatic incident, were allocated to receive twelve sessions of either TF-CBT or TF-CBT coupled with CFT. The study employed a repeated measures design. Data were gathered pre and post-therapy, using three questionnaires (1) Hospital Anxiety and Depression Scale; (2) Impact of Events Scale; (3) Self Compassion Scale-SF. **Results:** TF-CBT combined with CFT was more effective than TF-CBT alone on measures of self-compassion. Significant reductions in symptoms of depression, anxiety, hyper-arousal, intrusion and avoidance and a significant increase in self-compassion occurred in both groups post-therapy. **Conclusion:** The study provides some preliminary evidence to suggest that FSP may benefit from therapeutic interventions aimed at cultivating self-compassion. Further research is warranted using a larger sample size and adequately powered randomised controlled trial, to detect statistically significant differences and to negate the risk of confound due to low numbers resulting in significant differences between groups at baseline. Using CFT as an adjunct to TF-CBT may help FSP, who bear witness to the distress of others, cultivate compassion for their own suffering.

Key words: Trauma-focused CBT, self-compassion, compassionate mind training, Fire Brigade, Fire Service Personnel, compassion focused therapy

Introduction

Emergency work whilst rewarding, for many can also be a hazardous occupation, with staff often facing traumatising situations, long working hours and shift work. Personnel working for the emergency services either bear witness to distressing events, memories, sights, smells and/or sounds *or* vicariously are exposed to trauma. Individuals who respond to disasters and threats of terror may be more at risk of developing psychological, social and physical reactions (Fullerton et al., 1992; Harris et al., 2002), with shame, fear and guilt being common reactions (Lee, 2009).

One of the psychological sequelae of exposure to trauma for emergency service personnel is post-traumatic stress disorder (PTSD). The lifetime prevalence of PTSD is estimated to be 6.8% (Kessler et al., 2005), however, for emergency personnel, such as firefighters, the chance of developing PTSD has been estimated to range from 8% to 24.5% (Del Ben et al., 2006; Haslam & Mallon, 2003; Wagner et al., 1998).

More recently, a systematic review undertaken by Berger et al. (2012) and an in-depth review carried out by Skogstad et al. (2013), demonstrated the importance of preventive work and a thorough follow-up of employees after a critical event. Berger et al. (2012) aimed to estimate the worldwide pooled current prevalence of PTSD in rescue workers and concluded they have a much higher prevalence of PTSD than the general public. The authors suggest that there is a need for pre-employment strategies which aim to select the most resilient individuals for rescue work, and a need to implement preventative and educational measures through which resilience can be built.

PTSD symptoms can include hyper-arousal, intrusive thoughts, fear, avoidance of feared situations, flashbacks and nightmares. The DSM-5 (2013) now recognises that negative emotions, in addition to fear, may play a role in PTSD (Badour et al., 2015).

For example, shame, guilt and self-focused disgust may contribute to the development and maintenance of PTSD. Individuals exposed to traumatic events may report feelings of shame, self-criticism and guilt (Jonsson & Segesten, 2004; Lee et al., 2001; Leskela et al., 2002), particularly if they have failed in their attempt to rescue or help the victim (Jonsson & Segesten, 2004).

Evidence Regarding Therapeutic Approaches in Addressing Trauma

Trauma-focused CBT therapies (TF-CBT), for example, Prolonged Exposure (Foa et al., 2005), Cognitive Processing Therapy (Resick & Schnicke, 1993) and Cognitive Therapy for PTSD (Ehlers & Clark, 2000; Ehlers et al., 2005), are effective in the treatment of PTSD (Bisson et al., 2007; Bradley et al., 2005) and are currently recommended as first line treatments for this condition (National Institute of Clinical Excellence, (NICE) 2005).

All trauma-focused CBT treatment programmes require the individual to confront trauma memories. Research however, has highlighted high drop-out rates of between 20% and 35% with trauma-focused PTSD therapies that include exposure to trauma memories (Foa et al., 2005; Resick, et al., 2002). Also, between a third and a half of individuals receiving empirically supported treatments for PTSD do not fully respond to treatment (Bradley et al., 2005). Regardless of the above, other studies have demonstrated the effectiveness of TF-CBT and its acceptability to those who experience PTSD (Ehlers et al., 2005; Smith et al., 2007). The present study was specifically designed to explore the impact of introducing Compassion Focused Therapy (CFT) into a highly effective version of trauma-focused CBT (Ehlers et al., 2005).

Ehlers and Clark's (2000) cognitive model of PTSD suggests that individuals with PTSD perceive a serious current threat which includes; excessively negative appraisals of the trauma and/or its sequelae, negative appraisals of oneself, for example, 'I could have prevented this', and characteristics of trauma memories that lead to re-experiencing symptoms, such as flashbacks. Therapy aims to modify negative appraisals, correct autobiographical memories that lead to disturbance and remove maladaptive behavioural and cognitive coping strategies (Ehlers et al., 2005).

Ehlers and Clarke (2000) suggest idiosyncratic appraisals can maintain the sense of current threat, and associated distress underlying PTSD symptoms. This can include guilt from appraisals/ruminations about one's perceived actions or failings, and/or shame about how one reacted during or after the trauma and what such reactions mean about them as a person and in the views of others. For example, negative ruminations about how colleagues may perceive them. This is relevant to the present study as emergency personnel are exposed to critical incidents on a regular basis and may be more susceptible to feelings of guilt and shame (Jonsson & Segesten, 2004), especially if they feel that they have failed in their attempt to help or rescue. Within this population stakes are high and the risk of making a mistake may ignite a threat response and a fear that colleagues will reject them, which makes considering an intervention that develops self-compassion and compassion for others relevant. Shame can make the individual feel inferior, socially unattractive and powerless (Harmen & Lee, 2010), which can lead to self-criticism, isolation and self-blame. Therefore, for some individuals PTSD symptoms may be maintained by shame rather than fear (Lee et al., 2001), because individuals may persistently re-shame themselves, maintaining a sense of ongoing current threat (Lee, 2009).

Thompson and Waltz (2008) found that students ($n = 210$), who had experienced a traumatic event were more self-judgemental and self-critical. The researchers suggest that trauma survivors may benefit from incorporating techniques into treatment, which will help them address self-criticism, shame and increase affiliative feelings. Fire Service Personnel (FSP) face life and death situations and therefore integrating compassion based approaches into trauma-focused CBT, may help FSP create self-supportive voices in response to shame and self-criticism and may help them cultivate compassion for the suffering they have experienced (Gilbert, 2010; Leahy, 2001).

Compassion Focused Therapy

Compassion Focused Therapy (CFT) describes the process and theory of Gilbert's (2000; 2010) model and was developed specifically to help individuals who experienced high levels of self-criticism and shame (Gilbert, 2000; 2010). Compassionate Mind Training (CMT) is an element of CFT, which focuses on activating the self-soothing system using a variety of compassion focused interventions. Gilbert's model of CFT suggests that compassion is a flow, we can feel compassion from other people, we can direct compassion to other people and we can direct compassion towards ourselves (Gilbert, 2010). The model incorporates elements of attachment and evolutionary theory, the latter focusing on the evolution of the mammalian affiliative system (Gilbert 2010). Interventions aim to increase awareness and understanding of human reactions to internal and external threats. Hence, the idea of incorporating an intervention into TF-CBT to enhance self-compassion could improve FSP's capacity to manage distress through reducing levels of self-criticism, self-blame and shame.

To achieve this, compassion focused interventions are used which focus on helping individuals to employ self-soothing techniques and create affiliative feelings

towards themselves and others (Gilbert, 2010; Gilbert & Irons, 2004; Gilbert & Proctor, 2006). Recent research suggests compassion focused practice can be beneficial for a range of client groups. Particularly, assisting individuals with enduring mental health problems (Braehler et al., 2012; Gilbert & Proctor, 2006; Mayhew & Gilbert, 2008), eating disorders (Gale et al., 2012), social anxiety (Boersma et al., 2014), alcohol dependency (Brooks et al., 2012) and trauma symptom reduction (Beaumont et al., 2012; Beaumont & Hollins Martin, 2013; Bowyer et al., 2014).

Bowyer et al. (2014) used CMT as an intervention to enhance TF-CBT with a 17-year-old girl, who had suffered sexual assault at the age of 13. Results indicated a significant increase in self-reassurance and reduction in trauma, depression, shame and self-attacking symptoms post-therapy. Likewise, Beaumont et al. (2012) found that individuals (n = 32) developed more self-compassion post-therapy when compassionate mind training was used as a therapeutic intervention.

Further evidence from case study research suggests that compassion focused therapy may be a useful resource in Eye Movement Desensitisation and Reprocessing (EMDR) (Beaumont & Hollins Martin, 2013). Beaumont and Hollins Martin (2013) present a case report of a 58 year old man who presented with psychological and somatic symptoms following a traumatic incident. The individual had struggled to engage with cognitive behavioural interventions and therefore a combined treatment approach was employed to help increase levels of compassion and tackle the 'bully within'. Thus, the application of a compassion-focused EMDR approach produced a post-therapy reduction in trauma-related symptoms and an elevation in mood and self-compassion. However, the limitation of a case study involving one person raises

ambiguity about whether or not adding CFT to EMDR actually added benefit over and above standard EMDR.

Compassion focused interventions examine the interaction and link between three human affect regulation systems: (1) threat and protection system (2) seeking and acquiring system and (3) soothing and contentment system. Therapy aims to help restore balance between the affect regulation systems, with individuals learning to access their self-soothing system in response to threat. Responding to self-criticism by accessing the contentment/self-soothing system therefore helps individuals develop self-compassion in response to their traumatic experience. Within therapy, individuals learn through a variety of interventions, to cultivate a compassionate mind and learn to develop understanding for the suffering they feel (Gilbert, 2010). Learning to help individuals manage self-criticism, develop a motivation for change and incorporate self-soothing techniques into daily life, plays an important role in therapy. Within therapy individuals learn the key skills required to develop compassionate attributes which include, being motivated to care for and alleviate distress (care for well-being), having a sensitivity to distress, responding to suffering with empathy, learning to tolerate difficult emotions (distress tolerance) and responding to distress with non-judgement (Gilbert, 2010). Therapeutic interventions focus on the skills of compassion which include, compassionate reasoning, compassionate behaviour, compassionate imagery, compassionate feeling and compassionate sensation (Gilbert, 2010).

Rationale for the study

Early research findings suggests that psychotherapists may find benefit from incorporating CFT into a CBT approach. This is the first study that has investigated CFT

as a therapeutic intervention for FSP. The study aimed to explore the effectiveness of using CFT as an adjunct to TF-CBT (Ehlers et al 2005) in reducing symptoms of PTSD, anxiety and depression and increasing self-compassion.

Method

The study used was a 2 x 2 mixed-group design with repeated measures on the second factor (data collected from FSP pre-therapy and post-therapy).

Participants

Seventeen participants referred for therapy with symptoms of PTSD took part in this study. A Fire Service in England referred participants for therapy. FSP were allocated to one of the two groups prior to the start of therapy. One group (n = 8) received TF-CBT (treatment as usual) for up to 12 weeks and the second group (n = 9) received a combination of TF-CBT and CFT for up to 12 weeks. The initial and final sessions lasted 90 minutes, with all other sessions lasting 60 minutes. In the TF-CBT group 7 of the 8 participants attended 12 sessions of psychotherapy and 1 participant attended 11 sessions. In the combined group 7 participants completed 12 sessions of therapy, 1 completed 11 sessions and 1 completed 9 sessions. Individuals who received fewer sessions did so because they were ready to be discharged. The sample in the TF-CBT group consisted of 6 males and 2 females with a mean age of 41.3 (range 27 to 55) years and the combined group consisted of 6 males and 3 females with a mean age of 43.2 (range 25 to 54).

Procedure

Following the cognitive model of PTSD (Ehlers et al., 2005), all individuals received TF-CBT from an EMDR Europe Approved and BABCP-accredited cognitive behavioural psychotherapist (First Author). In addition, those in the combined therapy group were taught to use interventions that help provide a supportive and affiliative response to

suffering. Psycho-education was used in both groups. In the combined group individuals were introduced both to TF-CBT psycho-education and to the CFT model. The combined group were given explanations regarding how the human brain has evolved to respond to threat and Gilbert's (2009) three circle model was introduced and diagrams presented explaining the model (see Gilbert, 2014 for an overview of the model). Individual formulations were conducted for all participants in both groups. For example, in the combined group compassion-focused formulations were introduced to explain how early life experiences impact on the development of the threat system, how human beings cope with threat and how following trauma the coping strategies utilised may be unhelpful and lead to unintended consequences. Compassion focused thought records were used in the combined group with a focus on creating encouraging thoughts using warmth and a compassionate tone. Individuals in both conditions wrote accounts of the trauma and focused on 'hot spots'. However, individuals in the combined group also spent time focusing on compassionate letter writing by connecting with a compassionate self (a compassionate self that understands, supports and validates unconditionally). Table 1 provides examples of some of the interventions used in both conditions.

Insert table one here

Measures

The Hospital Anxiety and Depression Scale (Snaith & Zigmond, 1994)

This 14-item questionnaire measures symptoms of anxiety and depression. The scale is easy to administer and is a useful tool to measure symptoms of change over time.

The Impact of Events Scale – Revised (Horowitz et al., 1979; Weiss & Marmar, 1996)

This questionnaire measures symptoms of trauma and consists of 22 items, which measure avoidance, intrusion and hyper-arousal.

The Self-Compassion Scale (SCS) – Short Form (Raes et al., 2010)

This 12 item questionnaire uses a Likert scale of 1 (almost never) to 5 (almost always) to measure 'how I typically act toward myself in difficult times'. The SCS – short form is an alternative to the 26-item questionnaire (Neff, 2003).

All three scales are reliable measuring tools, having high internal validity (Neff, 2003; Snaith & Zigmond 1994; Weiss & Marmar, 1996).

Ethical Considerations

The Research Governance and Ethics Committee (RGEC) gave ethical approval. The first author received monthly supervision from a clinical supervisor throughout the study as per the Ethical Guidelines of the British Association for Behavioural and Cognitive Psychotherapies.

Data Analysis

To examine outcome measures comparing the efficacy for both conditions, analysis of covariance (ANCOVA) was performed for each outcome measure using post-therapy scores as the dependent variable, group as the independent variable and pre-therapy scores as the covariate. Partial eta squared (η^2) was calculated as a measure of the effect size. Data were analysed using SPSS 20.

Results

Table 2 reveals the mean and standard deviation scores for both group's pre and post-therapy. The mean scores suggest a greater improvement in the combined group for symptoms of anxiety, depression, avoidance, intrusion and self-compassion. However, as both groups started with different pre-therapy scores analysis of covariance (ANCOVA) was implemented to control for any possible differences in post-therapy scores and reduce the chance of within-group error variance. When analysing outcomes between groups where differences in the independent variable at the pre intervention stage could affect the dependent variable outcome ANCOVA is recommended, as it can control for such differences (Lord, 1967). Tests of normality and skewness across clinical variables were within acceptable limits. Data was tested for homogeneity of regression and linear relationships. Scores for anxiety and hyperarousal violated the assumptions and therefore were excluded from the analysis. All other variables met the assumptions to proceed with ANCOVA.

Insert Table 2 here

After controlling for pre-test scores there was a significant effect of the between groups factor for self-compassion [$F(1,14) = 7.014, p = .05, \text{partial } \eta^2 = .334$]. This suggests that TF-CBT combined with CFT was more effective than TF-CBT alone at increasing self-compassion among this present sample of firefighters.

Although not statistically significant, results from the ANCOVA revealed a trend towards greater reduction in estimated marginal means in the combined TF-CBT + CFT group for scores of depression (TF-CBT $M=5.6, S.D=.60$, TF-CBT+CFT $M=5.1, S.D=.56$), intrusion (TF-CBT $M=7.6, S.D=1.4$, TF-CBT+CFT $M=6.6, S.D=1.3$),

avoidance (TF-CBT M=7.3, S.D=1.0, TF-CBT+CFT M=5.3, S.D=.96) and the total Impact of Events Scales (TF-CBT M=19.9, S.D=2.6, TF-CBT+CFT M15.5, S.D= 2.5). The estimated marginal means scores control for the effect of the covariate for pre intervention measures by providing an estimate for adjusted means (Field, 2013). This gives an overall average for the pre stage scores on all independent variables to further control for extreme differences in pre-therapy scores between the two groups. We must stress that, as the results did not achieve statistical significance, they are reported here only as an indicator of a possible trend warranting further study.

Discussion

The results indicate a statistically significant reduction in symptoms of hyper-arousal, avoidance, intrusion, depression and anxiety post-therapy and a significant increase in self-compassion for both groups, with effect sizes high. Analysis of the comparative efficacy of both treatment groups indicates that the combined group was more effective for increasing self-compassion. Indeed, a large effect size was observed in the combined group post-therapy. Both the TF-CBT alone group, and the CFT adjunct group, showed large and statistically significant improvements post-therapy in PTSD intrusion, avoidance and hyperarousal symptoms, as well as in anxiety and depression. Analysis of comparative efficacy of the treatment groups found that CFT in adjunct to TF-CBT improved self-compassion more than TF-CBT alone. However, in this study, CFT in addition to TF-CBT did not improve outcomes in PTSD or depression symptoms. There was, however, some evidence of a non-significant trend favouring the combined CFT group, suggesting a larger study with greater power may be worthwhile in order to clarify the findings.

The present findings are consistent with the results of Thompson and Waltz (2008), who suggest that incorporating techniques into therapy that help create affiliative feelings may benefit individuals suffering with symptoms of trauma develop self-compassion. The results are in keeping with the findings of previous studies suggesting that when CFT is incorporated into psychotherapy it can be effective in helping individuals who experience mental health problems (Beaumont et al., 2012; 2013; Boersma et al., 2014; Bowyer et al., 2014; Braehler et al., 2012; Brooks, et al., 2012; Gale et al., 2012; Gilbert and Proctor, 2006; Mayhew & Gilbert, 2008).

A strength of the study was that participants in both groups completed therapy which is consistent with the findings from Ehlers et al., (2005). TF-CBT, as a stand-alone therapy, was shown to be acceptable for those experiencing symptoms of PTSD, though as highlighted the absolute therapeutic value of adding CFT **for such symptoms has not been demonstrated in the present study. Nevertheless the findings suggest that CFT may be a helpful intervention**, that can be integrated into traditional treatments for symptoms of PTSD and that FSP may benefit from utilising techniques that help them to develop inner caring and compassion for the suffering they have experienced.

Limitations of the study

Within this preliminary study there were a number of methodological challenges. Firstly, participants in the TF-CBT group started their therapeutic journey with fewer symptoms of depression, anxiety, avoidance and intrusion, and this could be viewed as a methodological flaw. This highlights the problems of allocating participants into two separate groups prior to collecting baseline measures, as both groups can start with different pre intervention scores. A statistical strategy to address this in the current study was to use ANCOVA within the analysis plan. However, a more erudite solution to this

fundamental problem is to conduct an adequately powered randomised controlled trial (RCT), with sufficient sample size to detect statistically significant differences between groups and to negate the risk of confound due to low N resulting in significant differences between groups at baseline. An RCT as suggested, would require robust randomisation procedures and consider carefully the role of blinding procedures within the study paradigm. A further limitation is that this study did not encompass a 'no treatment' comparison group. However, we did have a 'treatment as usual group'. The sample size was adequate for this preliminary pilot and feasibility study, however, the small sample size limits generalisability and may have also occluded potentially meaningful effects of the intervention as highlighted earlier by non-statistically significant improvements in some of the sub-scale scores. Another limitation is that it is difficult to determine which aspects of TF-CBT and CFT led to the improvements. Consideration also needs to be given to potential 'dosage' issues because the therapeutic interventions in both conditions varied, which meant that participants in the combined group received a different dose of TF-CBT than the TF-CBT group. This issue would need to be addressed in larger scale study, particularly if data is collected from a variety of psychotherapists. A potential solution is that a more uniform structure of therapy be delivered and a framework followed that can achieve high implementation fidelity as this may be the best way of replicating success. Carroll et al. (2007) developed one such framework, which the authors suggest enables better evaluation of intervention outcomes, improves the credibility and validity of the research and may protect against intervention variation. This should be considered in future research studies.

Further Research

The addition, of a qualitative arm of inquiry to understand the client's experience of the intervention might illuminate a greater understanding of the impact of CFT at an

individual level. This would also help clinicians to evaluate CFT as a stand-alone therapy. Follow-up data is essential for future research as this would help researchers to examine the impact cultivating self-compassion has on relapse rates. Further research investigating the impact CFT has on self-criticism, and the negative coping associated with emergency personnel's experience of trauma (Cicognani et al., 2009), would be beneficial to the Fire Service and the therapeutic community.

Conclusion

This study aimed to compare outcome measures from two groups of FSP referred with symptoms of PTSD and low levels of self-compassion. **The results indicated that TF-CBT significantly reduced symptoms of PTSD whether or not combined with CFT. Adding CFT had no statistical significant effect on symptoms of PTSD or depression, but did improve self-compassion relative to TF-CBT alone.** Nevertheless, the study provides some preliminary evidence to suggest that FSP may benefit from therapeutic interventions aimed at cultivating self-compassion. A full-scale adequately powered and with sufficient sample size RCT is recommended to address the limitations inherent in the current preliminary pilot investigation. However, proof of concept would seem to have been demonstrated to a significant degree in the current study thus providing support and justification for such an RCT.

This the first study to examine the effectiveness of incorporating CFT into a TF-CBT programme using a sample FSP. There is a growing body of evidence within the therapeutic community, which suggests that developing feelings of compassion can aid mental well-being. Compassion focused therapy can lead to higher levels of compassion for others, compassion for oneself and a sensitivity to suffering. Learning to self-soothe in response to threat, shame and self-criticism may help FSP who bear

witness to suffering on a daily basis. Using CFT as an adjunct to TF-CBT may enhance the use of CBT for Fire Service Personnel. This inaugural paper opens this discussion.

Acknowledgements

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Summary

- Compassion focused interventions focus on helping individuals to employ self-soothing techniques and create affiliative feelings towards themselves and others
- TF-CBT combined with CFT was more effective than TF-CBT alone on measures self-compassion.
- CFT as an adjunct to TF-CBT may be a useful intervention for Fire Service Personnel

Follow-up reading

Ehlers, A., & Clark, D.M. (2000). A cognitive model of posttraumatic stress disorder. *Behaviour Research and Therapy*, 38, 319–345.

Gilbert, P. (2010). *Compassion Focused Therapy*. London: Routledge.

Lee, D. (2012). *The Compassionate Mind Approach to Recovering from Trauma using Compassion Focused Therapy*. Routledge: London

Learning objectives

- (1) To understand that CFT was developed specifically to help individuals who experienced high levels of self-criticism and shame
- (2) To increase knowledge of the number of challenges FSP face in their day-to-day work which may lead to symptoms of shame, guilt, blame and self-criticism
- (3) To recognise that incorporating compassion focused interventions into TF-CBT may enable FSP to employ self-soothing techniques and create affiliative feelings toward themselves and others
- (4) To identify the interaction and link between three human affect regulation systems the (1) threat and protection system (2) seeking and acquiring system and (3) soothing and contentment system
- (5) To consider that no one therapy is panacea for all. Incorporating interventions that aim to cultivate compassion for self and others into psychotherapy may help individuals who bear witness to the suffering of others and as a result may develop symptoms of PTSD

References

- American Psychiatric Association. (2013). *Diagnostic and statistical manual of mental disorders* (5th ed.). Arlington, VA: American Psychiatric Publishing.
- Badour, C. L., Resnick, H. S., & Kilpatrick, D. G. (2015). Associations between specific negative emotions and DSM-5 PTSD among a national sample of interpersonal trauma survivors. *Journal of interpersonal violence*, 1-12. DOI: 10.1177/0886260515589930.
- Beaumont, E., Galpin, A., & Jenkins, P. (2012). Being kinder to myself: A prospective comparative study, exploring post-trauma therapy outcome measures, for two groups of clients, receiving either Cognitive Behaviour Therapy or Cognitive Behaviour Therapy and Compassionate Mind Training. *Counselling Psychology Review*, 27(1), 31-43
- Beaumont, E., & Hollins Martin, C. J. (2013). Using compassionate mind training as a resource in EMDR: A case study. *Journal of EMDR Practice and Research*, 7(4), 186-199. doi:10.1891/1933-3196.7.4.186
- Beaumont, E., & Hollins Martin, C. J. (2015). A narrative review exploring the effectiveness of Compassion-Focused Therapy. *Counselling Psychology Review*, 30(1), 21-32.
- Berger, W., Coutinho, E. S. F., Figueira, I., Marques-Portella, C., Luz, M. P., Neylan, T. C., Mendlowicz, M. V. (2012). Rescuers at risk: a systematic review and meta-regression analysis of the worldwide current prevalence and correlates of PTSD in rescue workers. *Social Psychiatry and Psychiatric Epidemiology*, 47(6), 1001–1011. <http://doi.org/10.1007/s00127-011-0408-2>
- Bisson, J., & Ehlers, A., Mathews, R., Pilling, S., Richards, D., & Turner, S. (2007). Psychological treatments for chronic post-traumatic stress disorder. Systematic review and meta-analysis. *The British Journal of Psychiatry* 190: 97-104.
- Boersma, K., Hakanson, A., Salomonsson, E., & Johansson, I. (2014). Compassion Focused Therapy to Counteract Shame, Self-Criticism and Isolation. A Replicated Single Case Experimental Study for Individuals with Social Anxiety *Journal of Contemporary Psychotherapy*. doi: 10.1007/s10879-014-9286-8
- Bowyer, L., Wallis, J., & Lee, D. (2014). Developing a Compassionate Mind to Enhance Trauma-Focused CBT with an Adolescent Female: A Case Study. *Behavioural and Cognitive Psychotherapy*, 42, 248-254. doi:10.1017/S1352465813000362

- Bradley, R., Greene J., Russ E., Dutra L., & Westen, D. (2005). A multidimensional meta-analysis of psychotherapy for PTSD. *American Journal of Psychiatry*, 162:214–217
- Braehler, C., Gumley, A., Harper, J., Wallace, S., Norrie, J., & Gilbert, P. (2012). Exploring change processes in compassion focused therapy in psychosis: Results of a feasibility randomized controlled trial. *British Journal of Clinical Psychology*, 52, 199 –214. doi:10.1111/bjc.12009
- British Association for Behavioural Counselling and Psychotherapy (BABCP). Standards of Conduct [http://www.babcp.com/About/Documents.aspx\[22/05/2015\]](http://www.babcp.com/About/Documents.aspx[22/05/2015])
- Brooks, M., Kay-Lambkin, F., Bowman, J., & Childs, S. (2012) Self-Compassion Amongst Clients with Problematic Alcohol Use. *Mindfulness*: doi: 10.1007/s12671-012-0106-5
- Cicognani, E., Pietrantonio, L., Palestini, L., & Prati, G. (2009). Emergency workers' quality of life: The protective role of sense of community, efficacy beliefs and coping strategies. *Social Indicators Research*, 94(3), 449-463.
- Carroll, C., Patterson, M., Wood, S., Booth, A., Rick, J., & Balain, S. (2007). A conceptual framework for implementation fidelity. *Implementation Science* 2, 1–9.
- Del Ben, K.S., Scotti, J.R., Chen, Y., & Fortson, B.L. (2006). Prevalence of posttraumatic stress disorder symptoms in firefighters. *Work and Stress*, 20, 37-48.
- Ehlers, A., & Clark, D.M. (2000). A cognitive model of posttraumatic stress disorder. *Behaviour Research and Therapy*, 38, 319–345.
- Ehlers, A., Clark D. M., Hackmann A., McManus F., & Fennell M. (2005). Cognitive therapy for PTSD: development and evaluation. *Behaviour Research and Therapy*. 43:413–431
- Field, A. P. (2013). *Discovering statistics using IBM SPSS statistics: And sex and drugs and rock 'n' roll* (4th ed.). Los Angeles: SAGE.
- Foa, E. B., Hembree, E. A., Cahill, S. P., Rauch, S. A. M., Riggs, D. S., Feeny, N. C., & Yadin, E. (2005). Randomized trial of prolonged exposure for post-traumatic stress disorder with and without cognitive restructuring: outcome at academic and community clinics. *Journal of Consulting and Clinical Psychology*.73:953–964.
- Fullerton, C. S., McCarroll, J. E., Ursano, R. J., & Wright, K. M. (1992). Psychological responses of rescue workers: Fire fighters and trauma. *American Journal of Orthopsychiatry*, 62, 371-379.

- Gale, C., Gilbert, P., Read, N., & Goss, K. (2012). An evaluation of the impact of introducing compassion focused therapy to a standard treatment programme for people with eating disorders. *Clinical Psychology & Psychotherapy*, doi.org/10.1002/cpp.1806.
- Gilbert, P. (2000). *Social mentalities: Internal 'social' conflicts and the role of inner warmth and compassion in cognitive therapy*. In, P. Gilbert & Bailey K.G (eds.) *Genes on the Couch: Explorations in Evolutionary Psychotherapy* (p.118-150). Hove: Brenner-Routledge.
- Gilbert, P., & Irons, C. (2004). A pilot exploration of the use of compassionate images in a group of self-critical people. *Memory*, 12, 507-516. doi:10.1080/09658210444000115
- Gilbert, P., & Procter, S. (2006). Compassionate mind training for people with high shame and self-criticism: Overview and pilot study of a group therapy approach. *Clinical Psychology & Psychotherapy*, 13, 353-379. doi:10.1002/cpp.507
- Gilbert, P. (2010). *Compassion Focused Therapy*. London: Routledge.
- Harman, R., & Lee, D. (2010). The Role of Shame and Self-Critical Thinking in the Development and Maintenance of Current Threat in Post-Traumatic Stress Disorder. *Clinical Psychology and Psychotherapy* 17, 13-24. doi:10.1002/cpp.636
- Harris, M. B., Baloglu, M., & Stacks, J. (2002). Mental Health of Trauma-Exposed Firefighters and Critical Incident Stress Debriefing. *Journal of Loss and Trauma* (7) 223-238.
- Haslam, C., & Mallon, K. (2003). A preliminary investigation of posttraumatic stress symptoms among firefighters. *Work and Stress* 17, 277-285.
- Horowitz, M, Wilner, N., & Alvarez, W. (1979). Impact of Event Scale: A measure of subjective stress. *PSYC Medicine*, 41, 209-218.
- Jonsson, A., & Segesten, K. (2004). Guilt, shame and need for a container: a study of post-traumatic stress among ambulance personnel. *Accident Emergency Nursing* 12(4): 215 -223.
- Kessler, R. C., Berglund, P., Demler, O., Jin, R., Merikangas, K. R., & Walters, E. E. (2005). Lifetime Prevalence and Age-of-Onset Distributions of *DSM-IV* Disorders in the National Comorbidity Survey Replication. *Archives of General Psychiatry*, 62, 593-602.
- Leahy, R. (2001). *Overcoming Resistance in Cognitive Therapy*. New York: Guilford Press.

- Lee, D.A (2009). Compassion Focused Cognitive Therapy For Shame-based Trauma Memories and Flashbacks in PTSD. In Grey, N. (Eds.) *A Casebook of Cognitive Therapy for Traumatic Stress Reactions*. Chapter 15. London: Routledge.
- Lee, D. A., Scragg, P., & Turner, S. W. (2001). The role of shame and guilt in reactions to traumatic events: A clinical formulation of shame-based and guilt based PTSD. *British Journal of Medical Psychology*, 74(4), 451–466.
- Leskela, J., Dieperink, M., Thras, P. (2002). Shame and post-traumatic stress disorder. *Journal of Traumatic Stress* 15(3), 223-226.
- Lord, F.M. (1967). A paradox in the interpretation of group comparisons. *Psychological Bulletin*, 68(5), 304-305.
- Mayhew, S., & Gilbert, P. (2008) Compassionate mind training with people who hear malevolent voices. A case series report. *Clinical Psychology and Psychotherapy*, 15, 113–38. doi:10.1002/cpp.566
- National Institute for Health and Clinical Excellence (NICE). Guidelines for - Post-traumatic stress disorder (PTSD): The management of PTSD in adults and children in primary and secondary care <http://www.nice.org.uk/CG26> [12/5/15]
- Neff, K. D. (2003). The development and validation of a scale to measure self-compassion. *Self and Identity*, 2, 223-250. doi:10.1080/15298860309027
- Raes, F., Pommier, E., Neff, K., & Van Gucht, D. (2010). Construction and Factorial Validation of a Short Form of the Self-Compassion Scale. *Clinical Psychology & Psychotherapy*. doi: 10.1002/cpp.702
- Resick, P. A., Nishith P., Weaver T. L., Astin M. C., & Feuer C. A. (2002). A comparison of cognitive-processing therapy with prolonged exposure and a waiting condition for the treatment of chronic posttraumatic stress disorder. *Journal of Consulting and Clinical Psychology*. 70:867–879.
- Resick, P., & Schnicke M. (1993). *Cognitive Processing Therapy for Rape Victims: a treatment manual*. Newbury Park, CA.
- Skogstad, M., Skorstad, M., Lie, A., Conradi, H. S., Heir, T., & Weisæth, L. (2013). Work-related post-traumatic stress disorder. *Occupational medicine*, 63(3), 175-182.
- Smith P., Yule W., Perrin S., Tranah T., Dalgleish T. & Clark D. M. (2007). Cognitive-behavioral therapy for PTSD in children and adolescents: a preliminary randomized controlled trial. *Journal of the American Academy of Child and Adolescent Psychiatry*. 46:1051–1061.
- Snaith, R. P., & Zigmond, A. S. (1994). *The Hospital Anxiety and Depression Scale Manual*. Berkshire: Nelson Publishing.

Thompson, B., & Waltz, J. (2008). Self-Compassion and PTSD Symptom Severity. *Journal of Traumatic Stress, Vol 21(6)*, 556 -558.

Wagner, D., Heinrichs M, Ehler U. (1998). Prevalence of symptoms of posttraumatic stress disorder in German professional fire-fighters. *American Journal of Psychiatry*155:1727–32.

Weiss, D. S., & Marmar, C. R. (1996). The Impact of Event Scale - Revised. In J. Wilson & T. M. Keane (Eds.), *Assessing psychological trauma and PTSD* (pp. 399-411). New York: Guilford.

Table 1: Some of the treatment interventions incorporated into both conditions

Trauma-focused CBT (Ehlers et al., 2005)	Compassion-focused therapy (Gilbert, 2010)
<p>Identifying relevant appraisals, memory characteristics and triggers</p> <p>Identifying behavioural and cognitive strategies that maintain PTSD</p> <p>Examining “hot spots”</p> <p>Socratic questioning</p> <p>Identifying an alternative new appraisal – e.g., by adding it to a written account or by using imaginal reliving</p> <p>Revisiting the scene of the trauma to: - (1) obtain evidence that helps explain why or how an event occurred. This is helpful for FSP who have appraisals such as “I could have prevented this from happening” and (2) focusing on what was different between “then” and “now”</p> <p>Reclaiming work – reintroducing social and behavioural activities that have been avoided or given up following the trauma</p> <p>Develop a narrative account - starting before the trauma and ending after the individual is safe again. Events are placed in the past</p> <p>Cognitive restructuring - focusing on the personal meanings of the trauma and its sequelae</p> <p>Examination of maintaining strategies - rumination, hypervigilance and/or safety behaviours</p>	<p>Developing sympathy, acceptance and insight into one’s own difficulties through self-reflection and mindfulness</p> <p>Learning to notice and experience physiological and psychological reactions with compassion, empathy and kindness</p> <p>Developing breathing techniques – e.g., Soothing Rhythm Breathing</p> <p>Creating an imaginary safe place in the mind’s eye that provides a sense of calm and peace</p> <p>Imagining and using acting skills to experience a compassionate self</p> <p>Experiencing compassion as a flow which can flow in three ways: - (1) from other people to oneself, (2) from oneself to other people and (3) from and to self</p> <p>Using thought records to explore the role played by self-critical rumination</p> <p>Learning to respond compassionately to the ‘bully within’</p> <p>Thinking about and responding to the anxious, sad, angry and critical self</p> <p>Compassionate letter writing which focuses on being kind, supportive and nurturing as opposed to being self-critical.</p> <p>Creating a ‘step by step’ approach to cope with trauma symptoms such as avoidance</p>

Table 2: Pre and Post-therapy Mean Scores and Standard Deviations for the CBT only and the combined group

	Therapy Type											
	CBT Group (<i>n</i> = 8)						CBT + CFT Group (<i>n</i> = 9)					
	Pre		Post		Diff		Pre		Post		Diff	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
HADS												
Anxiety	10.3	2.7	4.4	1.9	6.0	2.6	14.8	4.5	5.3	1.1	9.5	4.7
Depression	10.6	3.5	4.9	2.0	5.7	3.0	15.9	3.3	5.9	1.4	10.0	2.6
IES												
Avoidance	19.7	6.2	7.7	3.4	12.0	4.4	22.1	5.0	5.0	3.5	17.1	6.3
Hyper-arousal	15.4	5.1	5.1	3.3	10.3	2.9	13.2	5.6	3.4	2.9	9.8	4.4
Intrusion	20.9	5.0	7.4	3.9	13.5	5.2	23.0	5.9	6.9	4.6	16.1	5.9
Total IES	56.0	7.5	20.2	6.4	35.8	7.7	54.0	15.3	15.3	9.1	38.7	13.0
SCS												
	1.9	0.5	3.1	0.4	1.3	0.7	2.2	0.8	3.9	0.6	1.7	0.9

HADS = Hospital Anxiety and Depression Scale; IES = Impact of Events Scale; SCS = Self-Compassion Scale