



UNIVERSIDADE D
COIMBRA

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**UNDERSTANDING AND WORKING WITH SHAME MEMORIES:
THE EFFECTS OF A BRIEF COMPASSION FOCUSED IMAGERY
INTERVENTION**

**Dissertação no âmbito do Mestrado Integrado em Psicologia, área de
especialização em Psicologia Clínica e da Saúde, subárea de especialização em
Intervenções Cognitivo-Comportamentais nas Perturbações Psicológicas e
Saúde, orientada pela Professora Doutora Maria do Céu Salvador e pela
Professora Doutora Marcela Matos e apresentada à Faculdade de Psicologia e
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Julho de 2020

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“Behind you, all your memories,

Before you, all your dreams,

Around you, all who love you,

Within you, all you need.”

– Lilli Vaihere

Agradecimentos

À Professora Doutora Maria do Céu Salvador, obrigada por toda a disponibilidade, apoio, compressão e encorajamento ao longo deste percurso. Obrigada pelo exemplo de bondade e generosidade e por me ter ajudado a crescer, enquanto profissional e pessoa. Obrigada por ter despertado em mim o gosto pela investigação.

À Professora Doutora Marcela Matos, obrigada pela disponibilidade, imensa ajuda e partilha de conhecimento. Obrigada pelo excelente exemplo de profissionalismo, e ainda pelas palavras tranquilizadoras, compassivas e motivadoras.

Às minhas colegas de tese: foi um prazer conhecer-vos melhor e partilhar esta experiência convosco. Um especial obrigada à Sara, companheira em dias de trabalho árduo. Obrigada pelo apoio, espírito de entreaajuda, partilha e paciência durante este percurso. Obrigada ainda à Diana, pela disponibilidade e ajuda sempre que necessário.

A todos os que se disponibilizaram para participar neste estudo, o meu mais sincero obrigada. Agradeço profundamente a partilha, muitas vezes dolorosa, de experiências e sentimentos tão pessoais, que tornaram esta investigação possível.

Aos amigos que fiz ao longo deste percurso, que me acompanharam nos bons e maus momentos, e que ocuparam os meus dias com gargalhadas e boa disposição, obrigada. Em particular, à Diana, ao Dinis, ao Francisco, à Maria e à Mariana, obrigada pela amizade, pelos momentos de descontração e diversão e por simplesmente serem quem são. Um especial obrigada à minha Carol, por ser a melhor colega de casa e amiga, incondicionalmente disponível para me apoiar. Agradeço por ter preenchido os meus dias com o brilho que lhe é tão característico.

Ainda, à Maria e à Mariana, além da amizade, agradeço o companheirismo e verdadeiro espírito de entreaajuda. Obrigada por serem uma inesgotável fonte de suporte durante este ano, pelas palavras motivadoras e momentos de desabafo. Obrigada por nunca me terem deixado sozinha com as minhas dúvidas e inseguranças. Foi um prazer crescer convosco.

À minha família de praxe, obrigada por me fazerem sentir integrada e acompanhada desde o início deste percurso. À Sara, por me receber de coração e braços abertos. À Joana (a minha “Zuana”), pela amizade genuína, pela disponibilidade incondicional e, acima de tudo, por nunca deixar de estar perto, mesmo que longe. À

minha Bárbara, a minha afilhada de coração, por encher a minha vida de luz e bom humor desde o dia em que a conheci e por ter sempre uma palavra de força a dar.

Ao David, obrigada pela inesgotável paciência, compreensão e carinho. Obrigada pela inigualável capacidade de me arrancar um sorriso, mesmo em momentos de maior desânimo. Estou profundamente grata por todas as palavras de força e por nunca ter deixado de acreditar em mim.

Às minhas amigas de sempre, Rita, Sara e Vanessa, obrigada por me mostrarem que não existem diferenças de percurso que se sobreponham a uma amizade genuína. Estou imensamente grata por toda a ajuda, preocupação e apoio incondicional. Obrigada por serem a minha verdadeira claqué e por nunca me terem permitido duvidar de mim própria.

À minha família, que contribuiu para moldar a pessoa que sou hoje, obrigada. Um especial obrigada ao Tio João, à Tia Fátima, ao Tio Silvino e ao Tio Virgílio, pela ajuda e braços abertos que apaziguaram, não só o meu, como o coração apertado dos meus pais no início deste percurso. Obrigada ainda à minha prima Ju, pela garra de viver contagiante e por nunca perder uma oportunidade de me fazer rir, mesmo que, muitas vezes, à distância.

À minha Mamã Luísa, obrigada pelos valores transmitidos e pelos valiosos ensinamentos. Obrigada pelo exemplo de coragem, resiliência e positividade perante a vida, que tantas vezes me incentiva a ultrapassar as minhas dificuldades e a lutar pelas minhas ambições. Obrigada pela presença calorosa, pela tranquilidade transmitida e pela infundável bondade. Obrigada ainda ao André, por ser o irmão que nunca tive, e à Sara, pela amizade e pela sua tão genuína e humilde forma de ser.

Apesar de não se agradecer o amor, a profunda gratidão que sinto não cabe em mim nem nestas meras palavras. Dedico este trabalho, com todo o meu coração, aos meus pais, Rui e Manuela. Obrigada pelo esforço árduo e contínuo que fazem para que consiga alcançar os meus objetivos e por nunca terem baixado os braços perante as adversidades, sempre com vista na minha felicidade. São uns lutadores. Espero orgulhar-vos, e que um dia consiga retribuir-vos.

E porque a verdadeira felicidade só existe quando partilhada, partilho esta vitória com todos vós. Obrigada a todos, por tudo.

Understanding and Working with Shame Memories: The Effects of a Brief Compassion Focused Imagery Intervention

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Abstract

There is increasing evidence that early shame experiences can operate as traumatic and autobiographical memories with crucial implications to one's sense of self and personal identity and are associated with several psychopathological outcomes, including depression, anxiety, external shame and self-criticism. Previous research has demonstrated that improving one's compassionate competences may constitute an important target for the treatment of these shame memories characteristics. Particularly, Compassion Focused Imagery (CFI) has been shown to be effective in increasing compassionate skills and positive emotions and reducing negative affect associated with autobiographical memories and psychopathological symptoms. The present study aimed to assess the effectiveness of a brief CFI meditation intervention on reducing centrality and self-reported traumatic qualities of shame experiences, as well as their impact on psychological adjustment and well-being. Sixty-four participants were randomly assigned to one of two conditions – experimental (CFI; $N = 35$) or neutral control ($N = 29$). Compassionate competences, fears of compassion, shame memory characteristics and psychopathology and well-being indices were assessed at baseline (T1), after two weeks (T2) and after four weeks (T3) of intervention. Participants in the CFI group revealed significant decreases in fears of compassion from others, traumatic qualities of shame memories, external shame, self-criticism and depression. Some of the other variables under study changed in predicted directions, although these changes did not reach statistical significance. Participants in the control group revealed some unexpected significant increases in self-compassion and significant decreases in traumatic qualities of shame memories across the four weeks. Nonetheless, the findings of the present study seem to generally support the usefulness of CFI in the treatment of centrality and traumatic qualities of shame memories and in its impact on psychological distress and well-being. Future replications with methodological refinement might further support our conclusions.

Keywords: shame memories, centrality and traumatic qualities, compassion focused imagery, psychological adjustment, well-being

Resumo

Existem cada vez mais estudos que demonstram que experiências precoces de vergonha podem atuar enquanto memórias traumáticas e autobiográficas, com implicações cruciais na autoidentidade, estando associadas a diversos sintomas psicopatológicos, nomeadamente de depressão, ansiedade, vergonha externa e autocriticismo.

Investigações prévias têm evidenciado que o desenvolvimento de competências de compaixão poderá constituir um foco importante do tratamento destas características das memórias de vergonha. Em particular, exercícios de imaginação focada na compaixão têm revelado ser eficazes no desenvolvimento de competências de compaixão, no aumento de emoções positivas e na redução de afeto negativo associado a memórias autobiográficas e sintomatologia psicopatológica. O presente estudo teve como objetivo avaliar a eficácia de uma intervenção breve baseada em exercícios de imaginação focada na compaixão na redução da centralidade e qualidades traumáticas das memórias de vergonha, assim como no seu impacto no ajustamento psicológico e bem-estar. Sessenta e quatro participantes foram aleatoriamente distribuídos por uma de duas condições – experimental (CFI; $N = 35$) ou controlo neutro ($N = 29$).

Competências de compaixão, medos da compaixão, características das memórias de vergonha e índices de psicopatologia e de bem-estar foram avaliados no início do estudo (T1) e duas (T2) e quatro semanas (T3) depois do início da intervenção. O grupo experimental revelou decréscimos significativos nos medos de receber compaixão dos outros, qualidades traumáticas das memórias de vergonha, vergonha externa, autocriticismo e depressão. Outras variáveis tenderam em direções previstas, apesar de não terem atingido significância estatística. O grupo de controlo revelou alguns resultados significativos inesperados, nomeadamente um aumento na autocompaixão e uma redução das qualidades traumáticas das memórias de vergonha. Não obstante, as descobertas deste estudo parecem comprovar a utilidade de exercícios de imaginação focada na compaixão no tratamento das qualidades centrais e traumáticas das memórias de vergonha, bem como no seu impacto negativo no ajustamento psicológico e bem-estar. Futuras réplicas com aperfeiçoamentos metodológicos poderão suportar ainda mais as conclusões deste estudo.

Palavras-chave: memórias de vergonha, centralidade e qualidades traumáticas, imaginação focada na compaixão, ajustamento psicológico, bem-estar

Introduction

From an evolutionary point of view, particularly according to the biopsychosocial approach (Gilbert, 1998, 2002, 2007), evolution plays a powerful role on human's proneness to be highly regulated within social relationships (Matos et al., 2013). In order to feel safe, fit in, belong and engage in desirable social roles, humans are motivated to stimulate positive affect and create positive images of themselves in the mind of others (Matos et al., 2011). This requires a complex set of cognitive abilities such as symbolic representation, theory of mind, self-awareness and meta-cognition (Gilbert, 2002, 2003; Schore, 1998; Tangney & Fischer, 1995). Shame emerges from these cognitive abilities as a warning signal that we exist in the mind of others as someone with negative qualities (e.g. inferior, defective, inadequate), or lack of positive ones, and thus stand at risk of being rejected, excluded, ignored or even harmed or persecuted (Gilbert, 1998, 2003). For this reason, shame is something unique that only human species share; only humans, in the realm of social dynamics, can feel shame and shame others (Matos et al., 2013).

Feelings of shame can be categorized as external or internal, and despite being separable, they can also be experienced concurrently (Gilbert, 1998). While in external shame one's attention is focused on how the self exists in the mind of others (e.g. as unattractive, defective, inferior, inadequate), in internal shame the attention is focused on the self. In this case, one may start shaming oneself, by perceiving and evaluating the self in the same way others have, as being worthless, inadequate, inferior, defective, rejectable and globally self-condemning (Gilbert, 1998, 2002; Mikulincer & Shaver, 2005). This internalization of negative judgements and criticism from others, such that the person self-devalues, is also known as self-criticism (Gilbert, 1998). Thus, internal shame and self-criticism are highly fused processes, making self-criticism an internal shaming process (Gilbert & Irons, 2009).

Shame Memories: Centrality and Traumatic Qualities

Shame has been conceptualized as one's experience of feeling inferior, worthless, inadequate, unlovable or powerless in some way, as having flaws or inadequacies, and of being exposed as an unattractive and undesirable self (Gilbert, 1998, 2007; Lewis, 1992; Lindsay-Hartz et al., 1995; Tangney and Dearing, 2002). Therefore, shame is a self-conscious and socially shaped emotion that is linked to threats to (social) self-identity, playing a fundamental role in the formation of one's sense of self and self-identity as a

social agent (Dearing & Tangney, 2011; Gilbert, 1998, 2007; Tracy et al., 2007). This emotion evolved as a strategy to keep the self safe, by adopting defensive submissive responses along with self-monitoring and self-blaming, in an attempt to minimize possible attacks from the shamers and to restore one's image in their eyes (Gilbert, 1997, 1998).

Usually, shame arises from our early interactions with significant others, so shame experiences can occur very early in life and involve a primary threat to the self (e.g. criticism from a parent, bullying, failing at something important or being physically or sexually abused) (Gilbert, 1998, 2003). Furthermore, early shame interactions with attachment figures were found to be key in the way shame memories are structured and impact upon mental well-being (Matos et al., 2011; Matos & Pinto-Gouveia, 2011a). In fact, when interactions and experiences characterized by shame, neglect and fear of withdrawal of love and support occur early in life, children are unable to develop secure attachments and are left in a threatened state, where safety defensive and damage limitation behaviors are over stimulated (Bowlby, 1969, 1973; Mikulincer & Shaver, 2005; Perry et al., 1995).

These early experiences may be recorded in autobiographical memory, which refers to memories of events that have merged with self-conceptualization (Conway et al., 2004; Conway & Pleydell-Pearce, 2000), as conditioned emotional memories. Thus, these memories will function as traumatic ones, characterized by intrusion, hyperarousal and avoidance symptoms and can texture the whole sense of self, becoming central to one's personal identity and life narrative (Pinto-Gouveia & Matos, 2011) and having a powerful impact on self-schema, emotional and attentional processing and neurophysiologic systems (Baumeister et al., 2001; Dickerson & Kemeny, 2004; Gilbert, 2003; Schore, 1998, 2001). Furthermore, they can deeply impact on the way and with whom one engages socially (Gilbert, 2007) since these can influence the development of negative internal working models of self (e.g. as defective, inferior, weak or unworthy) and others (e.g. as agents of a threatening and hostile world, who may reject, criticize or harm the self). In this case, these memories become central to one's identity, structuring autobiographical knowledge and guiding emotional, attentional and cognitive processing and social behavior (Berntsen & Rubin, 2007; Conway, 2005; Matos et al., 2013).

As a matter of fact, shame has been recognized by researchers as the most harmful of self-conscious emotions (Gilbert, 1989; Lewis, 1992; Tangney & Dearing, 2002).

There is strong empirical evidence showing that shame experiences damage brain development (e.g., of caring behavior and cognitive abilities) in a drastic and lasting way and are one of the most powerful elicitors of stress responses (e.g., cortisol and serotonin) (Dickerson & Kemmeny, 2004; Eisenberger, 2011; Eisenberger et al., 2003; Perry, 2002; Perry, et al., 1995; Taylor et al., 2006, 2011). Following a shame event, individuals may experience dysfunctional emotions, cognitions and behaviors, which can lead to several psychopathological outcomes. So, during the past two decades, numerous empirical studies have shown that shame is associated to a wide variety of psychopathological symptoms and disorders such as depression, social anxiety, post-traumatic stress disorder, eating disorders, personality disorders (specially borderline personality disorder) and dissociation (Pinto-Gouveia & Matos, 2011).

Compassion Focused Imagery as a Treatment for Shame Memories

Compassion has been defined as a sensitivity to our and other's suffering, with a deep commitment to try to prevent and alleviate it (Gilbert, 2000; 2014).

Gilbert (2009, 2010) proposed different flows of compassion: compassion from ourselves to others, from others to ourselves, and from self to self (self-compassion). High levels of compassion for others and for self have been found to be associated with better mental and physical health and well-being, as well as improved interpersonal relationships (Kirby, 2017). On the other hand, low levels of compassion and self-compassion have been associated with high levels of self-criticism, guilt, rumination, and worry (Gilbert et al., 2011; Raes, 2010). Regarding compassion from others, Seppala and col. (2013) had demonstrated the existence of a protective effect of social support and connection in mental health outcomes. Additionally, Hermanto and col. (2016) found that being open to the compassion from others buffers the effect of self-criticism on depression.

Fears of compassion have been revealed to be another aspect worth working with (Gilbert, 2010). Research has found that individuals, particularly those high in self-criticism and shame, can find all three flows of compassion difficult, aversive or anxiety-provoking (Gilbert et al., 2011, 2012;). Furthermore, fears of compassion, for the self and from others, have been found to mediate the effects of the traumatic qualities and centrality of shame memories (or early memories of safeness), on depressive, anxious and paranoid symptoms (Matos, Duarte & Pinto Gouveia, 2017).

The human mind is comprised by three-basic emotion regulation systems: the threat/protection system, the drive-reward system, and the affiliative/soothing system. People tend to find themselves trapped between the threat and the reward systems, which can often bring feelings of failure and high levels of self-criticism and shame (Gilbert, 2014). Shame experiences seem to activate the threat/protection system by creating a sense of a threatened social self and may also inhibit the development of the affiliative soothing system, and therefore one's ability to regulate threat and negative emotions through affiliative, affective and motivational states, such as compassion (Gilbert, 2009; Liotti, 2004; Matos et al., 2015). These findings seem to be complemented with Steindl and col. (2018) study, which supports the idea that competencies to engage with and act on receiving compassion from others or from the self may be facilitated by early experiences of warmth and safeness and related affiliative system activation. It is also noteworthy that this study had corroborated the notion that competences to be self-compassionate when facing life difficulties may protect against the detrimental effects of traumatic shame memories (or lack of early memories of warmth and safeness), on negative affect. Instead, it can promote feelings of safeness and contentment.

For these reasons, psychological interventions that aim to cultivate compassion have been considered promising in the treatment of psychopathology (Kirby et al., 2017).

One compassion-based intervention is Compassion Focused Therapy (CFT; Gilbert, 2009, 2014), a transtheoretical psychotherapeutic approach specifically designed to help people suffering from high levels of self-criticism and shame (Gilbert 2014). Since the affiliative/soothing system helps facilitate compassion, CFT exercises intend to develop this motivational system (Kirby, 2016), through the development of the individual's own compassionate self. Some of these exercises use imagery to achieve these aims.

Imagination has been used across human history to regulate physiological states including excitement, self-confidence, and calmness (Leighton & Halifax, 2012). A technique called imagery was demonstrated to provide an effective route for accessing and modifying emotional states since the neural processes which support imagery overlap with perceptual processing (O'Craven & Kanwisher, 2000). There is increasing evidence that Compassion Focused Imagery (CFI) impacts on a range of physiological and neurophysiological processes (Klimecki et al., 2012). For instance, Selcuk and col. (2012) showed that bringing to mind caring attachment figures, in the context of a stressful

autobiographical memory, significantly reduced the negative affect associated with that memory. Furthermore, imagining a compassionate other being compassionate to oneself is associated with improved heart rate variability (an index of adaptive emotion regulation and higher levels of “safety-based” positive emotions; Rockliff et al., 2008, Thayer et al., 2012) and increases in the effects of oxytocin on feelings of affiliation and connectedness (Rockliff et al., 2011). This effect produced significant improvements, particularly in self-critical people who practice these CFI exercises over time (McEwan & Gilbert, 2015). Exercises involving the practice of imagining one’s best possible self and engaging in different life issues from that position are related to emotional change and increased optimism (Meevissen et al., 2011; Peters et al., 2010). This is corroborated by Matos, Duarte, Duarte, Gilbert and col. (2017) study that found that the embodiment of the compassionate self in everyday situations or life difficulties was associated with being more compassionate to others and oneself and to increases in positive emotions. Also, in line with McEwan and Gilbert (2015) study involving a 2-week training of this practices, Matos, Duarte, Duarte, Pinto Gouveia and col. (2017) findings showed that the development of the compassionate self, through a brief compassionate mind training, is associated with increases in positive emotions and in the three flows of compassion, as well as significant decreases in shame, self-criticism and fears of compassion.

Hence, considering the reviewed literature, Compassion Focused Imagery as a treatment for traumatic characteristics and centrality of shame memories, as well as for detrimental effects of shame, seems to be a field worth exploring.

The Present Study

The current study is part of a broader transcultural research project, that includes Portugal (University of Coimbra, research coordination by Dr. Matos), Australia (University of Queensland, research coordination by Dr. Steindl) and United States (Prof. Dr. Douglas Gentile, Iowa State University, USA). The aim of this project is to analyze and compare the effectiveness of two different meditation interventions (compassion-focused imagery and mindfulness) on reducing the self-reported traumatic qualities and centrality of shame experiences and their impact on psychological adjustment and well-being in a non-clinical sample across different countries.

Particularly regarding the aim of assessing the effectiveness of compassion-focused imagery in a non-clinical Portuguese sample, which is the purpose of the present

study, an earlier study, similar to this one, had been conducted at the University of Queensland with a 2-week CFI intervention. Results showed that participants did not report significant decreases in centrality or traumatic characteristics of shame memories, neither significantly lower negative attributions or affect nor significantly higher positive affect compared to the control group (Watson, 2019). Considering the limitations of the previous study, we decided to carry out an investigation with a 4-week CFI intervention that, to the best of our knowledge, had not yet been explored.

The study's findings may contribute to better understand how to work with shame memories characteristics within a non-clinical population and will add useful information to the research of the effectiveness of CFI in general.

Thus, the current investigation is comprised by two major studies, each one with its specific aim.

Study 1. The Effects of a Brief CFI Meditation Intervention: Intra and Inter-Group Changes Across Time

First, we intend to assess the effects of a 4-week CFI meditation online intervention on participants' subjective experience of shame memories and its impact on psychological adjustment, as measured by indices of shame, self-criticism, depression, anxiety and social anxiety; or, on the other hand, by participants' levels of positive affect and life satisfaction.

Hence, considering pre to post intervention changes in the CFI group (intra-group changes across time), it is expected that participants:

H1: will show significant improvements in the compassion flows (self-compassion and openness to compassion of others), as well as significantly lower fears of compassion (for self and from others);

H2: will show significant decreases in centrality and self-reported traumatic qualities of the recalled shame experience;

H3: will indicate significantly lower external shame, self-criticism, depression, anxiety and social anxiety;

H4: will show significantly higher positive affect and life satisfaction.

Additionally, considering inter-group changes across time, it is expected that, immediately following the intervention, participants in the CFI group:

H5: will reveal significant improvements in the compassion flows (self-compassion and openness to compassion of others), as well as significantly lower fears of compassion (for self and from others), compared to the control group;

H6: will show significant decreases in centrality and self-reported traumatic qualities of the recalled shame experience, compared to the control group;

H7: will report significantly lower external shame, self-criticism, depression, anxiety and social anxiety, compared to the control group;

H8: will report significantly higher positive affect and life satisfaction, compared to the control group;

Study 2. The Impact of Self-Criticism and Fears of Compassion on Participants' Response to a Brief CFI Meditation Intervention

There are important individual differences in how people experience compassion, since its development seems to be rooted in people's background. For instance, people with early life experiences lacking of warmth or caring tend to be very self-critic and can find it difficult to engage with the flows of compassion, to the point that even imagining receiving compassion from others or being self-compassionate can be frightening (Gilbert & Irons, 2005; Gilbert & Procter, 2006). This is further supported by Rockliff and col. (2008) study, which assessed individuals' responses to CFI through heart rate variability and salivary cortisol measures. In this study, some people revealed a clear increase in HRV through CFI, whereas others showed a more threat-like response associated with a reduction in HRV. Additionally, Rockliff and col. (2008), found that those with a more threat-like response to CFI were higher in self-criticism. Self-critic individuals often report feeling reluctant to quit their self-criticism and may also fear compassion since they can feel unworthy of compassion, may find it unfamiliar, fear that it triggers sadness, or find threatening to let others get close (Gilbert & Procter, 2006). Thus, we find it pertinent to explore the impact of participants' baseline levels of self-criticism and fears of compassion on their response to the CFI intervention. In line with previous studies findings, we expect that:

H9: baseline levels of self-criticism will significantly influence participants' response to the CFI intervention;

H10: baseline levels of fears of compassion for self will significantly influence participants' response to the CFI intervention;

H11: baseline levels of fears of compassion from others will significantly influence participants' response to the CFI intervention.

Method

Sample

Considering the purpose of this study, we carried out an experimental online study with an adult population. Inclusion criteria were age between 18 and 65 years old and Portuguese nationality or living in Portugal since at least the age of 6.

There were 171 participants initiating their participation at the first assessment moment (T1); 81 of them completed it and 65 participants completed T2. The total final sample consisted of 64 participants who completed the three assessment moments (Time 1, 2 and 3) entirely, of which 45 (70.3%) were female and 19 (29.7%) were male, with a mean age of 25 ($M = 24.63$; $SD = 7.62$). Forty-two (65.6%) participants were college students. The majority of the sample had Portuguese nationality (96.9%), Caucasian ethnicity (98.4%) and was single (92.2%). Regarding previous meditation experience, 40.6% of the sample had none, 39.1% had minimal, 18.8% had some and 1.6% had substantial experience. There were no statistically significant gender differences in age ($t_{(62)} = .60$; $p = .549$) or marital status ($\chi^2_{(4)} = 2.29$; $p = .683$). However, there were statistically significant gender differences in meditation experience ($\chi^2_{(3)} = 11.20$; $p = .011$), with women ($M = 1.96$; $SD = .77$) reporting higher previous meditation experience than men ($M = 1.47$; $SD = .77$). Cramer's V for meditation experience revealed to be medium ($\phi_c = .24$).

Procedure

As previously mentioned, the aim of the current study is to assess the effectiveness of compassion focused imagery in a non-clinical Portuguese sample. Thus, it will contribute with useful information to a broader transcultural research project that intends to compare the effectiveness of two different meditation interventions (compassion-

focused imagery and mindfulness) on reducing traumatic qualities and centrality of shame memories and their impact on psychological adjustment and well-being.

This study was previously approved by the Ethics Committee of the Faculty of Psychology and Educational Sciences of the University of Coimbra (CEDI, November 28th, 2019). Following this approval, it was advertised online, mostly through social networks. The recruitment occurred between January and May.

The participation was fully online, and the study encompassed three assessment moments (Times 1, 2 and 3), two weeks apart from each other, making a total of four weeks of intervention. Prior to the application of the research protocol, participants were given a written explanation of the research's purposes, its confidentiality and their voluntary participation and provided their informed consent. The study began with a first assessment moment (Time 1) where participants were randomly assigned to one of two conditions (Compassion Focused Imagery (CFI) – C and Neutral Control – N). This randomization allocation was conducted automatically by the online platform of the study, which resulted in 35 participants (54.7%) in the CFI group and 29 participants (45.3%) in the control group. Time 1 of assessment included a sociodemographic data questionnaire, a battery of self-report instruments, a shame-memory priming, individual questions regarding the shame memory recalled, the audio meditation exercise of their assigned condition and questions regarding the audio. At the end of Time 1, participants had access to a brief explanation of the subsequent study procedures and instructions. Participants also received an email thanking them for their participation, providing access to the audio exercise and reminding them of the second set of questionnaires to complete. Two weeks later the second assessment moment took place (Time 2). Here participants were asked to answer the same set of self-report questionnaires (except the SWLS and ETAP). Participants also completed a brief questionnaire to measure practice of the audio exercise (practice diary) and individual questions related to the way participants felt about the shame experience recalled, in the present moment. After concluding Time 2, participants received an email thanking them for their participation, giving access to the resources (audio meditation exercise and information about the study) and reminding them of their final participation. The third assessment moment (Time 3) occurred 4 weeks after the beginning of the study. This final evaluation included questions about participants' daily practice of the audio exercise, the same battery of self-report questionnaires used in Time 1 and the same individual questions presented in Time 2

regarding the shame memory. Finally, a full debrief about the study was provided to participants and they were given access to the other two audio exercises of this study.

During the study period, participants also received creative and appealing emails in order to promote the practice of the audio meditation exercise.

Measures and Materials

A sociodemographic questionnaire was administered in order to obtain information regarding age, gender, nationality (if country of origin was not Portugal: time of residence in Portugal), ethnicity, marital status, previous meditation experience and occupation (in case of student sample: faculty and course).

Audio Exercises

The scripts for the two exercises were developed by Dr. Steindl and Dr. Matos. For the current study, the scripts were translated to Portuguese and the audio exercises were recorded by Dr. Matos.

The neutral audio exercise (N) was a narration of chapter two in Charles Darwin's *The Voyage of the Beagle* (Darwin, 2013), chosen because of the similar length to the other exercises, its emotional neutrality and extrospective theme (Watson, 2019). *The Compassion Focused Imagery* (C) was an adaptation from materials based on Gilbert and Choden's (2013) examples of CFI and consisted in the practice of the soothing rhythm breathing and self-compassion imagery. The two audio exercises had an average length of approximately 15 minutes. In time 1, after participants listened to the audio exercise (for the first time), they were asked to respond to questions about the exercise and about the shame memory. During these 4 weeks, participants were asked to listen to the audio exercise once a day (or as many times as possible).

Practice Diary (Matos, Duarte, Duarte & Gilbert et al., 2017)

At the beginning of the assessment of Times 2 and 3, participants were asked to answer a self-report questionnaire measuring the quality of practice of the audio exercises. The questionnaire includes questions regarding how often they listened to the audio exercise (practice frequency), its helpfulness (practice helpfulness) and embodiment in the participants' daily lives (embodiment of the compassionate self).

Shame Memory Priming

Participants were given a brief explanation of the concept of shame, followed by examples of shame memories. They were then asked to recall an experience of shame from their childhood or adolescence of moderate intensity and to complete individual questions about it, in order to obtain qualitative information about the recalled shame experience. In Time 2 and 3, these individual questions were omitted; participants were instead asked to answer questions about how they interpreted and felt about the same shame experience recalled in Time 1, in the present moment. This priming method is derived from the Shame Experiences Interview (SEI; Matos & Pinto-Gouveia, 2006) which has been used in several studies (e.g., Matos et al., 2012; Matos, Duarte & Pinto Gouveia, 2017; Pinto-Gouveia & Matos, 2011).

Self-Report Questionnaires

Participants allocated to the two conditions completed a set of self-report instruments. After the shame memory priming, participants were as well instructed to answer the IES-R and CES in regard to the shame experience recalled. When these two scales were completed, participants were given access to the audio exercise. All the following questionnaires were administrated in Time 1, 2 and 3, except the SWLS and ETAP, that were not included in Time 2.

The *Impact of Event Scale-Revised* (IES-R; Weiss & Marmar, 1997; Portuguese version: Matos & Pinto-Gouveia, 2006) is a 22-item self-report questionnaire designed to evaluate current subjective distress for any specific life event, measuring three specific characteristics related to trauma: intrusion, avoidance and hyperarousal. Each item of the IES-R is rated in a 5-point Likert scale (0 = “Not at all”, 4 = “Extremely”). Although it was found a three-factor study in the original study, with alphas between .79 and .92, the Portuguese version revealed a single-factor structure with a Cronbach’s alpha of .96, acceptable test-retest reliability (after 4 weeks, $r = .82$, $p < .010$), and convergent and divergent validities. In the current study, IES-R showed a very good internal consistency in Time 1 ($\alpha = .94$), Time 2 ($\alpha = .94$) and Time 3 ($\alpha = .96$).

The *Centrality of Event Scale* (CES; Berntsen & Rubin, 2006; Portuguese Version: Matos, et al., 2010) is a 20-item self-report scale that intends to assess the extent to which a memory of a stressful event forms a reference point for personal identity and for the attribution of meaning to other experiences in a person’s life. Each item is rated

in a 5-point Likert scale (1 = “Totally disagree”; 5 = “Totally agree”). This scale presented a very good reliability, with excellent internal consistency both in the original study and in the Portuguese version ($\alpha = .94$ and $\alpha = .96$, respectively) and an adequate convergent validity for the combined sample. In this study, the internal consistency was very good as well, with Cronbach’s alphas of .96 in Time 1, .97 in Time 2 and .98 in Time 3.

The *Other As Shamer Scale – 2* (OAS2; Matos et al., 2014) intends to assess feelings of external shame that arise from the perception of negative judgements about the self in the mind of others. It is comprised of 8 items and it is answered using a 5-point Likert scale ranging from 0 (“Never”) to 4 (“Almost Always”) regarding the frequency of shame feelings, in which higher scores represent a higher frequency of external shame. In terms of the reliability, results showed a very good internal consistency ($\alpha = .82$) and good concurrent and divergent validities. In the present study, the Cronbach’s alphas were .90 both in Time 1 and 2, and .95 in Time 3, showing a very good internal consistency.

The *Forms of Self-Criticizing and Self-Reassuring Scale* (FSCRS; Gilbert et al., 2004; Portuguese Version: Pinto Gouveia & Costa, 2007) aims to evaluate how people are self-critical and self-reassuring in situations of failure and error. It is comprised of 21 items distributed by 3 factors: 1) Inadequate Self (feelings of inadequacy of the Self following failure – 10 items); 2) Hated Self (destructive response directed to the Self, characterized by a desire to hurt, persecute or attack the Self – 3 items); 3) Reassuring Self (positive, warm, comforting, and compassionate attitude towards to the self when things go wrong – 8 items). A measure of self-criticism is obtained through the combination of Inadequate Self and Hated Self factors. Participants answer each item using a 5-point Likert scale ranging from 0 (“I’m nothing like that”) to 4 (“I’m extremely like that”). The higher the scores the larger the feelings of inadequacy, self-repugnance or reassuring attitudes. Both the original version and its Portuguese version presented good internal consistency, with values ranging from .86 to .90. and .62 to .89, respectively. The Portuguese version also showed a good test-retest reliability (ranging from .31 to .86) and satisfactory convergent and discriminative validities. In this study, only the self-criticism measure was used, presenting Cronbach’s alphas of .88 both in Time 1 and 2 and .91 in Time 3.

The *Depression, Anxiety and Stress Scale* (DASS-21; Lovibond & Lovibond, 1995; Portuguese Version: Pais-Ribeiro et al., 2004) includes 21 items equally distributed across three dimensions that aim to assess depression, anxiety and stress. Keeping in mind

the way they felt last week, participants are asked to answer, based on a 4-point Likert scale (0 = “Didn’t apply to me at all” to 3 = “Applied to me most of the times”). The original version consists in 42 items distributed for the same three dimensions; results presented good internal consistency with Cronbach’s Alphas between .84 and .91. In the Portuguese version, the convergent-discriminant validity shows that there is some overlap between the three constructs and that the internal consistency was good (α ranging from .74 to .85), as well as convergent validity. In the current study, only the depression dimension and the anxiety dimension were used. The Cronbach’s alphas were .89 in Time 1, .87 in Time 2 and .89 in Time 3 for the Depression subscale, and .80 in Time 1, .82 in Time 2 and .87 in Time 3 for the Anxiety subscale.

The *Social Interaction Anxiety Scale* (SIAS; Mattick & Clarke, 1998; Portuguese Version: Pinto-Gouveia & Salvador, 2001) evaluates the social anxiety felt in the interaction with others. It is comprised of 19 items and participants answer them based on a 5-point Likert scale ranging from 0 (“Not at all”) to 4 (“Extremely”). A higher overall score represents higher levels of anxiety in social interaction situations. The original version showed an excellent internal consistency, with a Cronbach’s alpha of .94 for a community sample and .93 for a clinical sample. The Portuguese version also presented good psychometric characteristics, with a Cronbach’s alpha of .90 and a test-retest correlation coefficient of .77. In this study, the SIAS revealed an excellent internal consistency ($\alpha = .93$ in Time 1, $\alpha = .95$ in Time 2 and $\alpha = .94$ in Time 3).

The *Compassion Engagement and Action Scales* (CEAS; Gilbert et al., 2017; Portuguese version: Matos et al., 2015) is a self-report instrument consisting of three scales that aim to assess compassionate abilities through three different flows: 1) Self-compassion (compassion we have for ourselves when things go wrong in our lives), 2) Compassion For Others (referring to our sensitivity to other people’s thoughts and feelings), 3) Compassion From Others (the one we experience from others and flows into the self). This 3-factor scale is comprised of 39 items, equally distributed across them. Each scale consists of 6 items designed to evaluate the ability to be motivated and deal with suffering (compassion “Engagement”) and 4 items reflecting competencies to act on what is helpful to reduce or prevent suffering (compassionate “Actions”). Participants were asked to answer in a 10-point Likert scale (0 = “Never”, 10 = “Always”), referring to how often they experience these compassion skills when facing difficult situations and feelings. Higher scores represent more compassionate skills. Results presented good

psychometric characteristics, with Cronbach's alphas ranging from .72 to .94 and temporal reliability between .59 and .75. The divergent and convergent validities were also satisfactory. Currently, a 4-factor scale consisting of 52 items is being internationally validated, including an Openness to Compassion of Others scale. In the present study, only the Self-Compassion and Openness to Compassion of Others scales were used, with Cronbach's alphas of .78 in Time 1, .79 in Time 2 and .82 in Time 3 for the Self-Compassion scale, and .84 both in Time 1 and 2 and .86 in Time 3 for the Openness to Compassion of Others scale.

The *Fears of Compassion Scales* (FCS; Gilbert et al., 2011; Portuguese Version: Matos et al., 2011) is a self-report questionnaire that consists of 37 items distributed by three scales that evaluate: 1) fear of compassion for others (9 items); 2) fear of compassion from others (13 items); and 3) fear of compassion for self (15 items). Participants answer each item based on a 5-point Likert scale ranging from 0 ("Strongly Disagree") to 4 ("Strongly Agree"). Higher scores represent greater fear of developing feelings of compassion for others, for self, or of receiving feelings of compassion from others. The original version and its Portuguese version showed good psychometric characteristics, with Cronbach's alphas between .84 and .92 and .88 and .94. The Portuguese version presented adequate convergent and divergent validities as well. In the current study, only the fears of compassion from others and the fears of compassion for self scales were used. The Cronbach's alphas were .91 in Time 1, .90 in Time 2 and .91 in Time 3 for the fears of compassion from others subscale, and .91 in Time 1, .93 in Time 2 and .95 in Time 3 for the fears of compassion for self scale, showing a very good internal consistency.

The *Five Factor Mindfulness Questionnaire* (FFMQ; Baer et al., 2006; Portuguese version: Pinto Gouveia & Gregório, 2007) is a 39 items self-response instrument that aims to assess the tendency of an individual to be mindful in daily life. The instrument is answered using a 5-point Likert scale, ranging from 1 ("Never or very rarely true") to 5 ("Very often or always true"). It has five different factors, moderately correlated with each other, that conceptualize mindfulness as a multifaceted construct: nonjudging, look, act with awareness, describe and nonreacting. Both the original version of the instrument and its Portuguese version revealed a good internal consistency, with Cronbach's alphas ranging from .75 to .91 for the original version and between .66 and .89 for the Portuguese version. The convergent and divergent validities are also adequate. In the present study, the internal consistency was also good for all factors: nonjudging ($\alpha = .85$ in Time 1, $\alpha =$

.91 in Time 2 and .90 in Time 3), look ($\alpha = .86$ in Time 1, $\alpha = .89$ in Time 2 and $\alpha = .91$ in Time 3), act with awareness ($\alpha = .89$ in Time 1, $\alpha = .92$ in Time 2 and $\alpha = .93$ in Time 3), describe ($\alpha = .94$ in Time 1, $\alpha = .91$ in Time 2 and $\alpha = .92$ in Time 3) and nonreacting ($\alpha = .76$ in Time 1, $\alpha = .82$ in Time 2 and $\alpha = .77$ in Time 3).

The *Types of Positive Affect Scale* (TPAS; Gilbert et al., 2008; Portuguese version: Pinto Gouveia et al., 2008) is a self-report instrument that evaluates the degree to which people normally experience different types of positive emotions in their daily lives. Participants are asked to rate 18 different positive emotions, from 0 (“Not characteristic of me”) to 4 (“Very characteristic of me”). The results can be understood based on three factors (“activated positive affect”, “relaxed positive affect” and “safeness/contentment positive affect”) that presented a good internal consistency with Cronbach’s alphas ranging from .73 to .83. The retest reliability for the “activated” and “safe/content positive affects” was good ($r = .84$ and $r = .77$, respectively) but for the “relaxed positive affect” was low ($r = .34$). The instrument also showed a good convergent validity, particularly in relation to “The Comprehensive Affect and Personality Scale” (r between .59 and .71). In the present study, the internal consistency was also good. The Cronbach’s alphas were .90 in Time 1 and .89 in Time 3 for the activated positive affect factor, .93 in Time 1 and .91 in Time 3 for the relaxed positive affect factor and .84 in Time 1 and .81 in Time 3 for the safeness positive affect factor.

The *Satisfaction With Life Scale* (SWLS; Diener et al., 1985; Portuguese version: Simões, 1992) intends to assess global life satisfaction through several components of subjective well-being. Participants are asked to answer 5 items based on a 5-point Likert scale that ranges from 1 (“Disagree a lot”) to 5 (“Agree a lot”). Both the original study and its Portuguese version showed a good internal consistency (.87 and .77 respectively). The original study also showed a good temporal stability ($r = .82$ within 2 months). The Portuguese version presented adequate convergent and predictive validities. In the current study, SWLS also presented a good internal consistency, with Cronbach’s alphas of .80 in Time 1 and .83 in Time 3.

Data analysis

Data were collected via three online surveys (Time 1, 2 and 3) using the Qualtrics platform; then the data was transferred to the SPSS program (Statistical Package for the

Social Sciences version 22; Armonk, NY: IBM Corp.) in order to carry out the statistical analysis.

Adherence to normality was assessed through the examination of skewness and kurtosis of each variable (Kline, 2005). Outlier's analysis was verified through Cook's Distance (maximum values ≥ 1 were considered to be extreme values). Internal consistency indices were calculated for each instrument and respective factors, considering Cronbach's values of less than .60 as inadmissible, between .60 and .69 weak, between .70 and .79 acceptable, between .80 and .89 high, and between .90 and 1 excellent (Pestana & Gageiro, 2008).

In order to analyze sociodemographic variables, variables under study, shame memory priming variables and practice diary measures, descriptive statistics were performed.

Baseline gender and between conditions differences for sociodemographic variables were tested using independent samples t-test for continuous variables and chi-square for categorical variables (Field, 2013). The interpretation of the effect size parameter was based on Cramer's V, considering values of .06 as small, .17 as medium and .29 as large (Pallant, 2011). For further understanding of the relationship between sociodemographic variables and variables under study, Pearson correlation coefficients were conducted. Concerning the magnitude of these correlations, we considered a correlation coefficient lower than .20 to reveal a very low association, between .21 and .39 low, between .40 and .69 moderate, between .70 and .89 high and between .90 and 1 an excellent association (Pestana & Gageiro, 2008).

To analyze baseline differences between groups regarding the variables under study, baseline comparisons for gender and between groups were explored through multivariate analyses of variance (ANOVAs). The effect size considered for these analyses was partial eta squared (η^2_p), in which $\eta^2_p \leq 0.05$ corresponds to a small effect, $\eta^2_p [0.05; 0.25]$ to a medium effect, $\eta^2_p [0.25; 0.50]$ to a large effect and $\eta^2_p > 0.50$ to a very large effect (Marôco, 2010).

Independent-samples t-test was used in order to assess differences between groups regarding the self-reported qualities of the audio exercise in the first time participants heard it (Time 1) and to analyze differences between groups in self-reported qualities of the practice of the audio exercise across the four weeks of intervention. Additionally,

paired samples t-test was conducted to analyze the evolution of these practice qualities over time, assessing differences between Time 2 (after two weeks) and Time 3 (after four weeks) in both groups. To interpret the effect size of these differences, Cohen's criteria (1988) was used, considering Cohen's d values around .2 as small, .5 as medium and .8 as large.

To analyze the effects of the CFI intervention we explored mean differences between pre and post-intervention (time main effects) and the interaction effects between groups across time (time \times group interaction) through mixed between-within ANOVAs, considering the CFI and the control groups as the between-subjects factor.

Additionally, to assess mean differences across the four weeks of intervention (Time 1, 2 and 3) regarding the variables under study in each group separately, repeated measures ANOVAs were conducted (pairwise comparisons).

Finally, to explore the possible impact of self-criticism and fears of compassion in participants' response to the CFI intervention, repeated measures ANOVAs were conducted, considering self-criticism (FSCRS) and fears of compassion (from others and for self; FCS) measures as covariates.

To analyze the ANOVAs' outcomes, sphericity assumption was analyzed through Mauchly's Test of Sphericity. Whenever this assumption was not verified, the Greenhouse-Geisser epsilon ($\epsilon < 0.75$) was used (Field, 2009). Regarding the homogeneity of variance assumption, it was verified through Levene's Test. Box's Test of Equality of Covariance Matrices was used to verify the variance-covariance matrix assumption.

Results

Preliminary Data Analysis

No random missing values for the variables under study were found, except for item 16 of FFMQ, which was filled in, for each participant, with the mean value obtained in the corresponding factor (describe). However, it is noteworthy that some questionnaires from the first assessment moment (T1) were not answered by all participants due to an unexpected programming error, so the N for each measure will vary and be specified in subsequent analyses.

No severe violations to the normal distribution of the variables were found, with values of kurtosis and skewness revealing acceptable values. After conducting the Cook's distance analysis, no outliers were found. Regarding the homogeneity of variance assumption, through analysis of the Box's Test of Equality of Covariance Matrices, all variables satisfied the variance-covariance matrix assumption. Additionally, according to Levene's Test, only the react factor (FFMQ) did not satisfy the homogeneity of variances ($p = .049$).

Because we had found significant gender differences in meditation experience, revealing a medium effect size ($\phi_c = .24$), Pearson correlation coefficients were analysed for a better understanding of the relationship between this variable and the variables under study (dependent variables). Significant positive correlations were only found between meditation experience and T1 relaxed positive affect ($r = .27$) and safe positive affect ($r = .37$; TPAS). Considering the reduced number of significant correlations and their magnitude and the modest sample size of the present study ($N = 64$), we decided not to control gender meditation experience differences in the dependent variables' outcomes.

Differences between groups for sociodemographic variables were investigated (using independent samples t-test or qui-square test). No significant differences between groups were found in ethnicity, age, gender, marital status, occupation or meditation experience.

Regarding the multivariate ANOVAs conducted to analyze baseline differences in the dependent variables of the study, baseline comparisons between groups were explored. Baseline significant differences between groups in the variables under study were only found in life satisfaction scores (SWLS), but with a small size effect ($\eta^2p = .107$). In fact, the control group scored higher on life satisfaction ($M = 19.79$; $SD = 3.12$ for $N = 28$), when compared with the CFI group ($M = 17.48$; $SD = 3.86$ for $N = 31$).

Descriptive Statistics

Shame Memory Priming Variables

Although shame has been emphasized by research as playing an important role in psychosocial functioning, and besides the increasing investigation on centrality and traumatic qualities of shame memories, the phenomenology of those memories constitutes a field less explored. However, Matos (2012) developed a pioneer semi-

structured interview designed to assess these phenomenological features of shame experiences. So, based on Shame Experiences Interview (SEI; Matos & Pinto-Gouveia, 2006), participants answered some qualitative questions regarding their shame memories that we decided to explore.

Figures 1 to 5 present the descriptive statistics for these qualitative questions, specifically the type of shame situation (Fig. 1), the shamer (Fig. 2), the context (in the presence or absence of other people; Fig. 3), the continuity of the shame experience recalled (if it occurred once, if it was a merging of similar/related events or if it occurred over an extended period of time; Fig 4) and the extent to which the participants felt some types of emotions (Fig. 5).

Furthermore, considering a 11-point Likert scale (0 = “None”, 10 = “Totally”), participants’ average both for external and internal shame felt in the shame experience recalled was somewhat high, reporting a mean value of 7 ($M = 7.11$; $SD = 2.09$ for external shame and $M = 6.97$; $SD = 2.74$ for internal shame). Regarding the valence of the emotions felt, in a 5-point Likert scale ranging from 0 = “Negative” to 4 = “Positive”, participants reported a mean value of 1, suggesting that the emotions felt during the shame experience recalled were mostly negative ($M = 1.06$; $SD = .77$). Considering the same scale (0 = “Not intense at all”, 4 = “Very intense”), participants recalled a considerably high intensity of the emotions felt during the shame experience, reporting a mean value of 3 ($M = 2.75$; $SD = .82$). In terms of shame memory vividness, in a scale from 1 = “Very vague/diffuse” to 7 = “Very vivid/clear”, participants memory of the shame experience is approximately mid-range, since participants reported a mean value of 4 ($M = 4.44$; $SD = 1.70$). The mean age for when the shame experience occurred was 13 years old ($M = 13.08$; $SD = 3.90$).

Fig. 1. *Pie chart of the type of shame situation.*

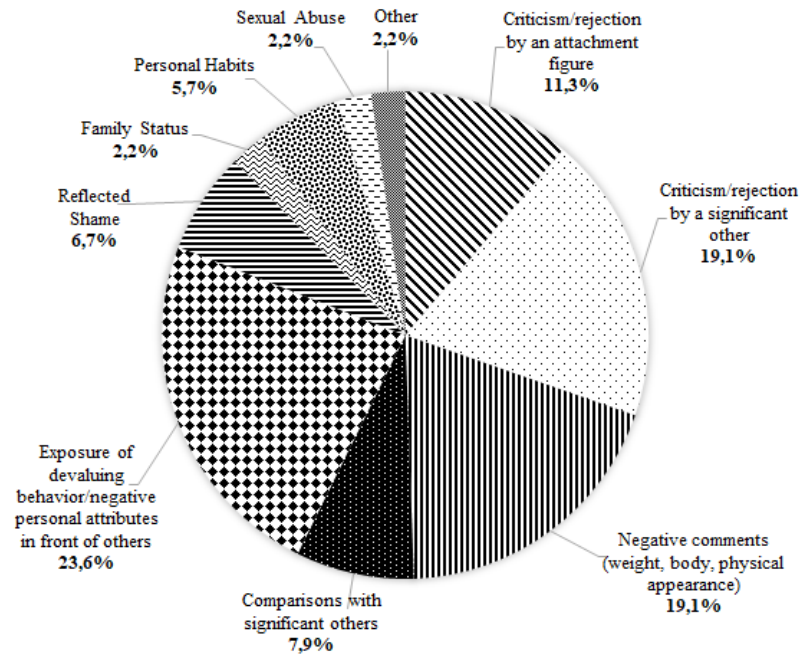


Fig. 2. *Pie chart of the shamer.*

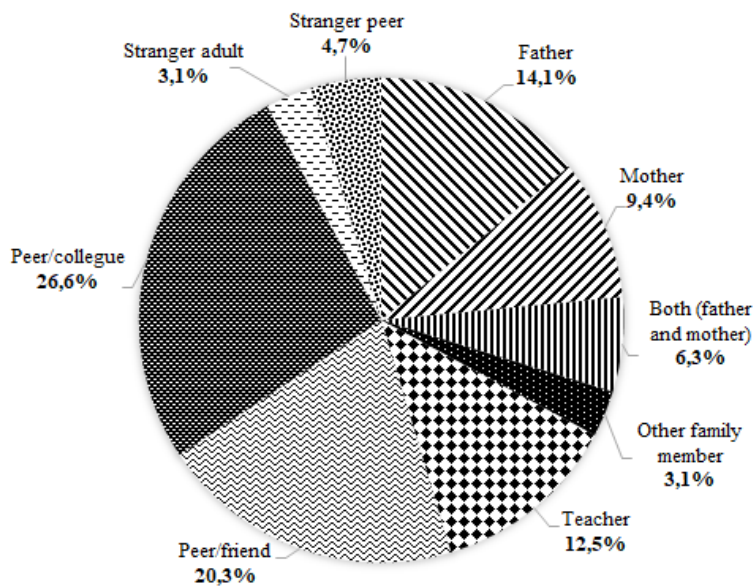


Fig. 3. *Pie chart of the context of the shame experience.*

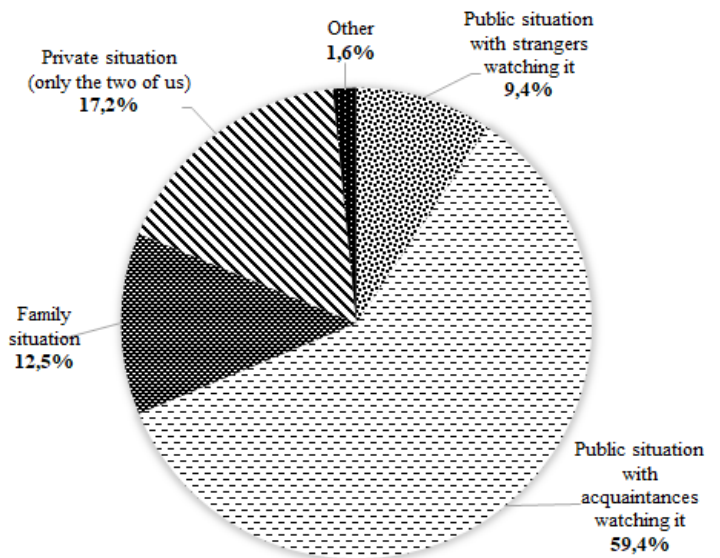


Fig. 4. Pie chart of the continuity of the shame experience.

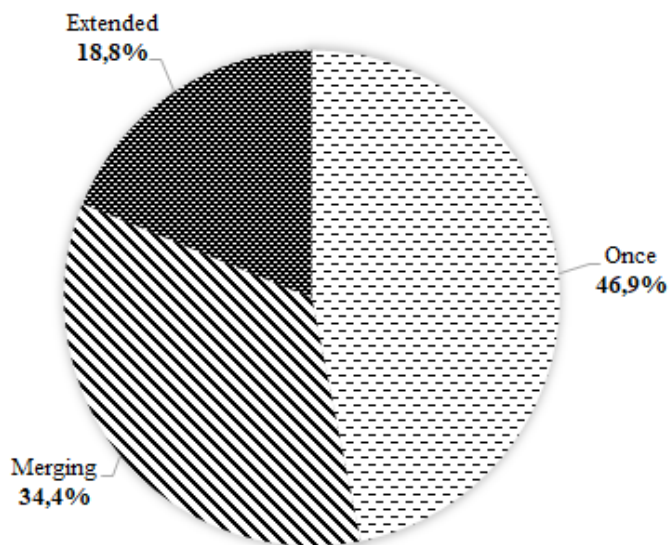
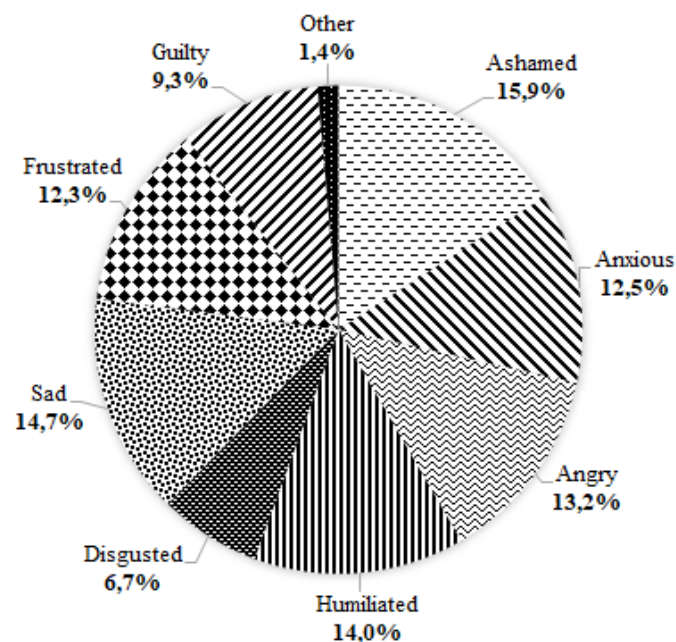


Fig. 5. Pie chart of the extension of the types of emotions felt in the shame experience.



Practice Qualities

Regarding the qualities of the audio exercise reported by participants after hearing it for the first time, participants in the CFI group heard the majority of the audio exercise, reporting a mean of 8 ($M = 7.94$; $SD = 2.01$), while participants in the control group rated the amount heard with a 5 ($M = 5.41$; $SD = 2.16$) of a maximum of 10. Additionally, most of the participants in the CFI group considered the audio exercise to be engaging, reporting a mean of 6 ($M = 6.31$; $SD = 2.19$), as participants in the control group rated it with a 5 ($M = 4.83$; $SD = 1.98$), of an overall of 10. Furthermore, also considering a maximum of 10, the majority of participants in the CFI group felt soothed with the audio exercise, rating it with a 7 ($M = 7.00$; $SD = 2.34$), as participants in the control group also reported feeling soothed, rating it with a 6 ($M = 5.90$; $SD = 2.13$). Also, most of the participants in the CFI group did not report the audio exercise as boring, rating it with a 4 out of 10 ($M = 3.63$; $SD = 2.25$), while participants in the control group rated it with a 5 ($M = 5.21$; $SD = 2.06$). Finally, the majority of participants did not find the audio exercise irritating, rating it with a 2 out of 10 in both groups ($M = 1.94$; $SD = 1.78$ in the CFI group; $M = 2.14$; $SD = 1.92$ in the control group).

Considering the practice of the audio exercise across the four weeks of intervention, and a maximum of 5 for each measure, participants in the CFI group reported a mean of 3 for the frequency in which they had practiced the audio exercise

over the four weeks ($M = 2.91$; $SD = 1.17$ in Time 2; $M = 2.60$; $SD = 1.09$ in Time 3). Additionally, the majority of participants in the CFI group considered the audio exercise to be helpful over the four weeks, rating it with a 4 in terms of helpfulness ($M = 3.71$; $SD = .85$ in Time 2; $M = 3.57$; $SD = 1.008$ in Time 3). Finally, most participants in the CFI group also reported to be able to embody the audio exercise in their daily lives over the four weeks, rating the level of embodiment with a 3 ($M = 3.19$; $SD = .850$ in Time 2, $M = 3.19$; $SD = .971$ in Time 3).

Regarding the practice qualities reported by participants in the control group across the four weeks, and also considering an overall score of 5, participants reported a relatively low practice frequency of the audio exercise, rating it with a 2 ($M = 2.48$; $SD = 1.184$ in Time 2; $M = 2.17$; $SD = 1.071$ in Time 3). However, the perceived helpfulness over the four weeks of the audio exercise was not so low, since participants rated it with a 3 ($M = 3.31$; $SD = .806$ in Time 2; $M = 3.45$; $SD = .827$ in Time 3), as well as regarding the perceived ability of embody the audio exercise ($M = 2.52$; $SD = .731$ in Time 2; $M = 2.55$; $SD = .817$ in Time 3).

Practice Qualities: Intra and Inter-Group Comparisons

Regarding the reported qualities of the audio exercise after participants heard it for the first time, significant differences between groups were found since the CFI group significantly reported a higher amount heard of the audio exercise than the control group ($t_{(62)} = 4.836$, $p < .001$) and considered it to be significantly more engaging ($t_{(62)} = 2.818$, $p = .006$) and significantly less boring ($t_{(62)} = -2.902$, $p = .005$). Cohen's d revealed to be large for the amount heard ($d = 1.2$) and medium for how engaging or boring they found it ($d = .7$ for both qualities).

Considering the practice qualities reported by participants over the four weeks, significant differences between groups were found only for self-reported levels of embodiment. This is, after two weeks of practicing the audio exercise (Time 2), participants in the CFI group reported significantly higher ability of embodying the audio exercise in their everyday life situations (in this case, compassionate competences) than participants in the control group ($t_{(62)} = 3.249$, $p = .002$). Similar results were found after four weeks of practicing (Time 3), since participants in the CFI group had also reported significantly higher embodiment abilities than the control group ($t_{(62)} = 2.792$, $p = .007$).

Based on Cohen's d , the effect size for significant differences of embodiment between groups revealed to be medium across the four weeks ($d = .8$ in Time 2; $d = .7$ in Time 3).

When analyzing the evolution of the self-reported practice qualities across the four weeks of intervention, significant differences were found in the CFI group regarding practice frequency. Participants in the CFI group practiced significantly more frequently during the first two weeks of intervention (Time 2) than during the last two (Time 3; $t_{(34)} = 2.588$, $p = .014$). Cohen's d revealed to be large ($d = .9$). In the control group, no significant differences across the four weeks were found in practice qualities.

Study 1. The Effects of a Brief CFI Meditation Intervention: Intra and Inter-Group Changes Across Time

In order to explore the effects of the CFI meditation intervention administered over the 4 weeks on the variables under study, mixed between-within ANOVAs were conducted. Thus, the results analyses were made based on time main effects (intra group changes) and time \times group interaction effects (inter group changes) – see Table 1.

Intra-Group Changes Across Time

Considering both groups as the between-subjects factor, significant main effects of time were found for fears of compassion from others (FCS), self-reported traumatic qualities of the recalled shame experience (IESR), external shame (OAS-2), self-criticism (FSCRS), social anxiety (SIAS), self-compassion (CEAS) and nonjudging, look and describe factors of FFMQ. Medium effect sizes were found for all these variables, except for external shame, which revealed a small effect size.

Additionally, repeated measures ANOVAs were conducted for each group separately, in order to assess significant mean differences over the four weeks of intervention. Pairwise comparisons show the mean differences in the variables under study at each moment of the intervention (Time 1, 2 and 3), for each group (Table 2).

Regarding significant mean differences occurring in the CFI group over the four weeks, fears of compassion from others showed significant decreases, particularly from Time 1 to 3 of the intervention. Participants' reported significantly lower traumatic qualities of the shame memory recalled, particularly from Time 1 to 3 and from Time 1 to 2. Additionally, participants' in the CFI group showed significant decreases over the four weeks in external shame (from Time 1 to 3 and from Time 2 to 3), self-criticism

(from Time 1 to 2 and from Time 1 to 3) and depression (from Time 1 to 3). Some significant increases in the CFI group were also found in nonjudging (from Time 1 to 2 and from Time 1 to 3) and look factors of FFMQ (both from Time 1 to 3 and from Time 2 to 3).

Although not significantly, some other variables under study changed in the predicted directions in the CFI group. For instance, non-significant increases were found in self-compassion over the four weeks. On the other hand, although not significantly, centrality of the shame experience recalled decreased over time. Furthermore, anxiety also showed decreases over the four weeks, although not significant. Contrarily, act with awareness, describe and nonreacting facets of mindfulness (FFMQ) revealed some improvements over time, not significant as well. Other non-significant increases were also found in positive affect over the four weeks of intervention, namely relaxed and safe positive affect. Similar results were found for participants' life satisfaction, revealing increases over the four weeks of intervention, although not reaching statistical significance.

Nonetheless, some variables under study revealed not so consistent and predicted progresses over time in the CFI group. This is, openness of compassion of others showed an unexpected decrease in the first two weeks of the intervention (from Time 1 to 2), shifting for an increase in the last two (from Time 2 to 3), although not significantly in both cases. Additionally, fears of compassion for the self revealed non-significant decreases in the first two weeks (from Time 1 to 2) and increases in the last two (from Time 2 to 3), not significant as well. Finally, social anxiety revealed an unexpected increase during the first two weeks (from Time 1 to 2), shifting for a more accentuated decrease in the last two (from Time 2 to 3), both not significant.

Regarding the control group, some significant mean differences were found across the four weeks. Particularly, participants' in the control group reported significantly lower traumatic qualities of the shame experience recalled over the four weeks, particularly from Time 1 to 2 and from Time 1 to 3. Self-compassion significantly increased from Time 1 to 3 and from Time 2 to 3 in the control group. Finally, participants' in the control group significantly reported less anxiety from Time 1 to 2 of the intervention, although it had shifted for an increase (although not significant) in the last two weeks (from Time 2 to 3).

Inter-Group Changes Across Time

As presented in Table 1, significant time \times group interaction effects were found for depression, showing that participants in the CFI group significantly reported lower depressive symptoms over the four weeks of intervention, when compared with the control group (Fig. 6).

Although no significant time \times group interaction effects were found besides the one for depression, some of the variables under study revealed greater changes in the expected directions in the CFI group than in the control group. In other words, participants in the CFI group reported greater decreases in fears of compassion from others, external shame, self-criticism, and anxiety than in the control group, although not sufficiently to produce significant time \times group interaction effects. Additionally, nonjudging, look, act with awareness and nonreacting facets of FFMQ showed greater improvements in the CFI group, in comparison with the control group. Some illustrative examples are represented in Figures 7 to 10.

Table 1. Means and standard deviations (SDs), main (time) and interaction (time \times group) effects of the intervention in CFI and control groups

Measures	Time	CFI Group		Control Group		Time			Time \times Group		
		Mean	SD	Mean	SD	<i>F</i>	<i>p</i>	η^2p	<i>F</i>	<i>p</i>	η^2p
IES-R $N_{CFI} = 35; N_{control} = 29$	1	30.89	18.071	33.00	17.483						
	2	23.31	16.034	23.21	18.378	15.729	<.001	.202	.334	.690	.005
	3	21.23	19.925	19.93	19.120						
CES $N_{CFI} = 35; N_{control} = 29$	1	46.43	18.613	40.07	17.564						
	2	45.91	19.553	39.14	18.226	2.860	.061	.044	.012	.988	.000
	3	43.46	19.092	36.86	17.404						
OAS-2 $N_{CFI} = 35; N_{control} = 29$	1	8.94	5.308	9.72	7.086						
	2	8.23	5.413	8.45	6.225	3.321	.044	.051	1.624	.204	.026
	3	6.89	6.244	9.03	6.905						
FSCRS_{Self-Criticism} $N_{CFI} = 31; N_{control} = 25$	1	21.81	9.057	20.44	9.242						
	2	18.97	8.097	19.12	8.555	4.443	.023	.076	3.117	.062	.055
	3	17.65	8.188	20.32	9.049						
DASS_{Depression} $N_{CFI} = 33; N_{control} = 27$	1	5.52	4.360	4.11	3.994						
	2	4.94	4.387	4.56	3.836	.726	.486	.012	4.226	.017	.068
	3	3.85	3.633	4.85	4.580						
DASS_{Anxiety} $N_{CFI} = 33; N_{control} = 27$	1	3.30	3.450	4.33	4.029						
	2	2.48	3.043	3.44	3.735	2.979	.055	.049	.524	.594	.009
	3	2.36	3.111	4.00	4.368						
SIAS $N_{CFI} = 33; N_{control} = 27$	1	30.52	14.858	30.74	14.195						
	2	31.18	15.643	30.52	14.402	3.600	.030	.058	.111	.895	.002
	3	28.70	14.587	28.37	12.753						

Measures	Time	CFI Group		Control Group		Time			Time \times Group		
		Mean	SD	Mean	SD	<i>F</i>	<i>p</i>	η^2p	<i>F</i>	<i>p</i>	η^2p
<i>CEAS_{Self-Compassion}</i> $N_{CFI} = 33; N_{control} = 27$	1	69.21	12.155	65.37	11.907						
	2	71.97	10.746	67.22	12.885	10.261	<.001	.150	1.236	.292	.021
	3	73.06	12.382	71.74	11.312						
<i>CEAS_{OpennessCompassion}</i> $N_{CFI} = 33; N_{control} = 27$	1	78.73	18.094	74.30	17.309						
	2	77.91	17.231	73.19	17.774	.848	.431	.014	.200	.819	.003
	3	80.00	15.819	74.15	17.532						
<i>FCS_{ForSelf}</i> $N_{CFI} = 33; N_{control} = 28$	1	11.91	9.448	13.36	10.336						
	2	9.70	8.886	14.00	12.034	.304	.681	.005	1.133	.315	.019
	3	10.42	8.913	14.25	13.621						
<i>FCS_{FromOthers}</i> $N_{CFI} = 33; N_{control} = 28$	1	16.52	10.860	16.54	9.720						
	2	14.55	8.976	16.18	10.860	3.600	.030	.058	.999	.371	.017
	3	13.36	8.373	15.50	10.675						
<i>FFMQ_{Nonjudging}</i> $N_{CFI} = 32; N_{control} = 27$	1	26.91	6.039	25.59	6.277						
	2	28.84	6.501	26.22	7.526	4.241	.017	.069	2.082	.129	.035
	3	30.22	6.257	26.15	7.204						
<i>FFMQ_{Look}</i> $N_{CFI} = 32; N_{control} = 27$	1	19.62	6.220	22.37	5.485	3.594	.031	.059	1.728	.182	.029
	2	19.78	6.419	22.22	5.983						
	3	21.25	7.139	22.59	6.197						
<i>FFMQ_{ActAware}</i> $N_{CFI} = 32; N_{control} = 27$	1	25.03	6.301	24.41	6.034						
	2	26.22	6.519	23.52	6.739	.329	.720	.006	2.009	.139	.034
	3	26.53	7.184	23.85	5.979						
<i>FFMQ_{Describe}</i> $N_{CFI} = 32; N_{control} = 27$	1	24.68	7.291	25.90	6.097						
	2	24.97	7.186	25.89	6.824	4.012	.021	.066	.082	.921	.001
	3	26.16	7.234	27.00	6.563						

Measures	Time	CFI Group		Control Group		Time			Time × Group		
		Mean	SD	Mean	SD	<i>F</i>	<i>p</i>	η^2p	<i>F</i>	<i>p</i>	η^2p
FFMQ <i>Nonreacting</i> N _{CFI} = 32; N _{control} = 27	1	19.81	4.782	19.04	4.238						
	2	19.84	4.900	19.48	4.182	1.802	.170	.031	.365	.695	.006
	3	20.75	4.414	19.67	4.197						
TPAS <i>Activated</i> N _{CFI} = 33; N _{control} = 25	1	21.64	5.678	21.28	5.941						
	3	19.91	5.697	21.28	5.208	1.561	.217	.027	1.561	.217	.027
TPAS <i>Relaxed</i> N _{CFI} = 33; N _{control} = 25	1	13.39	4.924	14.52	5.576						
	3	14.15	5.233	15.04	3.780	1.504	.225	.026	.052	.820	.001
TPAS <i>Safe</i> N _{CFI} = 33; N _{control} = 25	1	9.64	3.090	10.08	3.378						
	3	10.33	3.189	10.68	2.795	2.945	.092	.050	.016	.898	.000
SWLS N _{CFI} = 31; N _{control} = 28	1	17.48	3.855	19.79	3.119						
	3	18.10	3.944	19.96	3.844	1.212	.276	.021	.365	.548	.006

Note. significant effects ($p < .05$) are represented in bold. Since not all participants answered to all the questionnaires, the N for each measure was specified by CFI and control groups. IES-R = Impact of Event Scale-Revised; CES = Centrality of Event Scale; OAS-2 = Other As Shamer Scale – 2; FSCRS = Forms of Self-Criticizing and Self-Reassuring Scale; DASS = Depression, Anxiety and Stress Scale; SIAS = Social Interaction Anxiety Scale; CEAS = Compassion Engagement and Action Scales; FCS = Fears of Compassion Scales; FFMQ = Five Factor Mindfulness Questionnaire; TPAS = Types of Positive Affect Scale; SWLS = Satisfaction With Life Scale

Table 2. *Pairwise comparisons for both groups across time (T1, T2 and T3)*

Measures	Time		CFI Group			Control Group		
			Mean Difference	SE	<i>p</i>	Mean Difference	SE	<i>p</i>
<i>IES-R</i> N _{CFI} = 35; N _{control} = 29	1	2	7.571	3.056	.018	9.793	2.948	.002
	1	3	9.657	3.613	.011	13.069	3.009	<.001
	2	3	2.086	2.380	.387	3.276	2.516	.204

Measures	Time		CFI Group			Control Group		
			Mean Difference	SE	<i>p</i>	Mean Difference	SE	<i>p</i>
<i>CES</i> N _{CFI} = 35; N _{control} = 29	1	2	.514	1.739	.769	.931	1.961	.639
	1	3	2.971	2.141	.174	3.207	1.711	.071
	2	3	2.457	2.114	.253	2.276	1.434	.124
<i>OAS-2</i> N _{CFI} = 35; N _{control} = 29	1	2	.714	.637	.270	1.276	.802	.123
	1	3	2.057	.793	.014	.690	1.010	.500
	2	3	1.343	.640	.043	-.586	.790	.464
<i>FSCRS_{Self-Criticism}</i> N _{CFI} = 31; N _{control} = 25	1	2	2.839	1.145	.019	1.320	1.340	.334
	1	3	4.161	1.256	.002	.120	1.470	.936
	2	3	1.323	.796	.107	-1.200	.759	.127
<i>DASS_{Depression}</i> N _{CFI} = 33; N _{control} = 27	1	2	.576	.509	.267	-.444	.676	.517
	1	3	1.667	.578	.007	-.741	.683	.288
	2	3	1.091	.571	.065	-.296	.486	.547
<i>DASS_{Anxiety}</i> N _{CFI} = 33; N _{control} = 27	1	2	.818	.523	.128	.889	.308	.008
	1	3	.939	.494	.066	.333	.567	.562
	2	3	.121	.520	.817	-.556	.586	.351
<i>SIAS</i> N _{CFI} = 33; N _{control} = 27	1	2	-.667	1.097	.548	.222	1.258	.861
	1	3	1.818	1.540	.246	2.370	1.301	.080
	2	3	2.485	1.311	.067	2.148	1.458	.153
<i>CEAS_{SelfCompassion}</i> N _{CFI} = 33; N _{control} = 27	1	2	-2.758	1.807	.137	-1.852	1.371	.188
	1	3	-3.848	1.939	.056	-6.370	1.506	.000
	2	3	-1.091	1.175	.360	-4.519	1.413	.004

Measures	Time		CFI Group			Control Group		
			Mean Difference	SE	<i>p</i>	Mean Difference	SE	<i>p</i>
<i>CEAS_{OpennessCompassion}</i> N _{CFI} = 33; N _{control} = 27	1	2	.818	1.627	.619	1.111	1.655	.508
	1	3	-1.273	1.923	.513	.148	1.663	.930
	2	3	-2.091	1.454	.160	-.963	1.571	.545
<i>FCS_{ForSelf}</i> N _{CFI} = 33; N _{control} = 28	1	2	2.212	1.238	.084	-.643	1.712	.710
	1	3	1.485	1.450	.313	-.893	2.034	.664
	2	3	-.727	1.120	.521	-.250	.863	.774
<i>FCS_{FromOthers}</i> N _{CFI} = 33; N _{control} = 28	1	2	1.970	1.191	.108	.357	1.102	.748
	1	3	3.152	1.182	.012	1.036	1.087	.349
	2	3	1.182	.817	.158	.679	1.188	.572
<i>FFMQ_{Nonjudging}</i> N _{CFI} = 32; N _{control} = 27	1	2	-1.938	.782	.019	-.630	1.154	.590
	1	3	-3.313	.962	.002	-.556	1.098	.617
	2	3	-1.375	1.000	.179	.074	.629	.907
<i>FFMQ_{Look}</i> N _{CFI} = 32; N _{control} = 27	1	2	-.156	.431	.719	.148	.672	.827
	1	3	-1.625	.573	.008	-.222	.581	.705
	2	3	-1.469	.609	.022	-.370	.457	.425
<i>FFMQ_{ActAware}</i> N _{CFI} = 32; N _{control} = 27	1	2	-1.188	.826	.161	.889	.916	.341
	1	3	-1.500	.932	.118	.556	.780	.482
	2	3	-.313	.791	.696	-.333	.728	.651
<i>FFMQ_{Describe}</i> N _{CFI} = 32; N _{control} = 27	1	2	-.290	.564	.610	.016	.804	.984
	1	3	-1.478	.798	.074	-1.095	.784	.174
	2	3	-1.188	.608	.060	-1.111	.646	.097

Measures	Time		CFI Group			Control Group		
			Mean Difference	SE	<i>p</i>	Mean Difference	SE	<i>p</i>
<i>FFMQ</i> _{Nonreacting} N _{CFI} = 32; N _{control} = 27	1	2	-.031	.679	.964	-.444	.607	.471
	1	3	-.938	.520	.081	-.630	.618	.318
	2	3	-.906	.686	.196	-.185	.329	.579
<i>TPAS</i> _{Activated} N _{CFI} = 33; N _{control} = 25	1	3	1.727	.987	.090	.000	.907	1.000
	1	3	-.758	.700	.288	-.520	.760	.500
<i>TPAS</i> _{Relaxed} N _{CFI} = 33; N _{control} = 25	1	3	-.697	.518	.188	-.600	.535	.274
	1	3	-.613	.488	.219	-.179	.530	.739
<i>TPAS</i> _{Safe} N _{CFI} = 33; N _{control} = 25	1	3						
	1	3						
<i>SWLS</i> N _{CFI} = 31; N _{control} = 28	1	3						
	1	3						

Note. Mean differences are significant at the .05 level and represented in bold. Since not all participants answered to all the questionnaires, the N for each measure was specified by CFI and control groups. IES-R = Impact of Event Scale-Revised; CES = Centrality of Event Scale; OAS-2 = Other As Shamer Scale – 2; FSCRS = Forms of Self-Criticizing and Self-Reassuring Scale; DASS = Depression, Anxiety and Stress Scale; SIAS = Social Interaction Anxiety Scale; CEAS = Compassion Engagement and Action Scales; FCS = Fears of Compassion Scales; FFMQ = Five Factor Mindfulness Questionnaire; TPAS = Types of Positive Affect Scale; SWLS = Satisfaction With Life Scale

Fig. 6. Estimated marginal means of depression (DASS) in the experimental (CFI) and control groups across the four weeks of intervention (Time 1, 2 and 3).

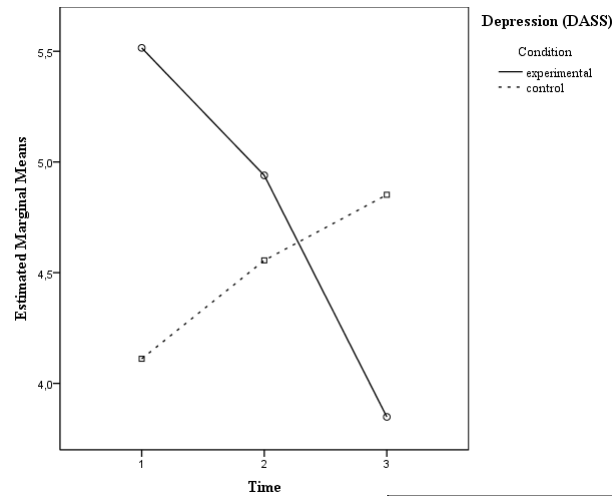


Fig. 7. Estimated marginal means of fears of compassion from others (FCS) in the experimental (CFI) and control groups across the four weeks of intervention (Time 1, 2 and 3).

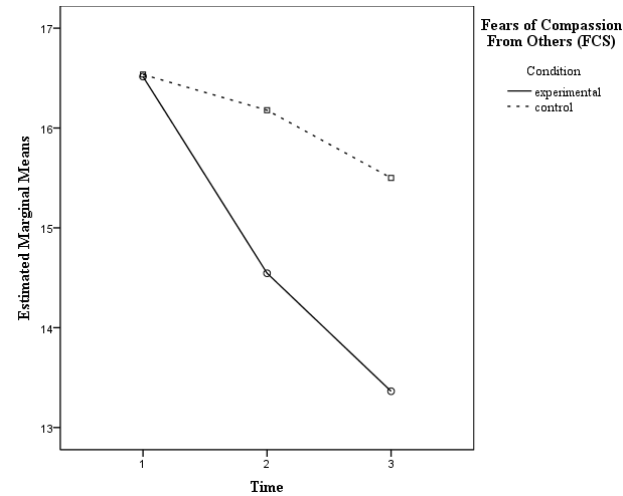


Fig. 8. Estimated marginal means of external shame (OAS-2) in the experimental (CFI) and control groups across the four weeks of intervention (Time 1, 2 and 3).

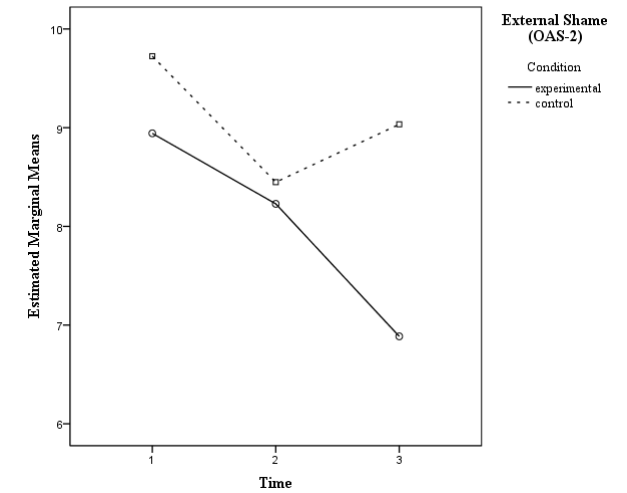


Fig. 9. Estimated marginal means of self-criticism (FSCRS) in the experimental (CFI) and control groups across the four weeks of intervention (Time 1, 2 and 3).

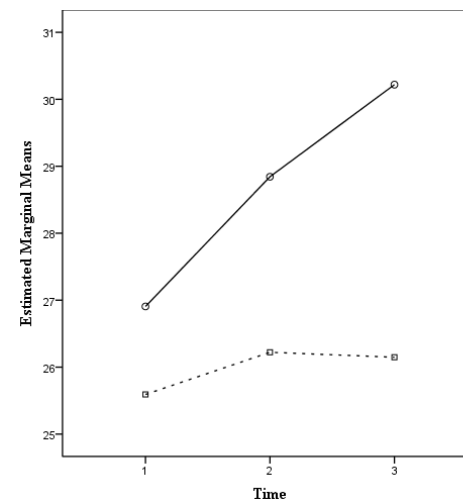
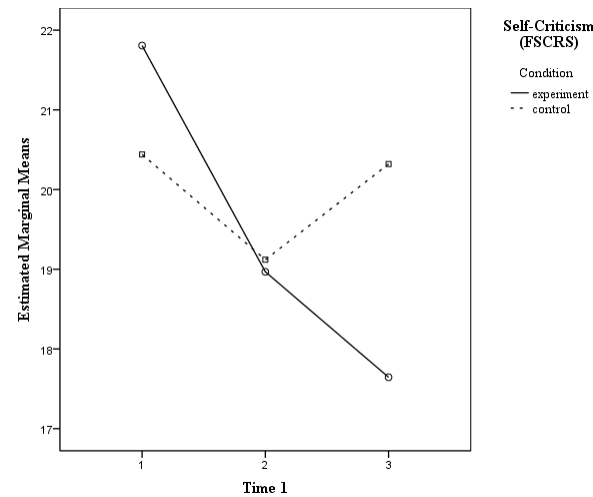


Fig. 10. Estimated marginal means of nonjudging (FFMQ) in the experimental (CFI) and control groups by group across the four weeks of intervention (Time 1, 2 and 3).

Study 2. The Impact of Self-Criticism and Fears of Compassion on Participants' Response to a Brief CFI Meditation Intervention

In order to explore the impact of self-criticism and fears of compassion in participants' response to the CFI intervention, repeated measures ANOVAs were conducted using self-criticism (FSCRS) and fears of compassion for self and from others as covariates (FCS).

Regarding self-criticism as a covariate analysis, no significant effects of self-criticism over time were found in the variables under study.

When using fears of compassion for the self as a covariate (Table 3), significant effects of fears of compassion for the self over time were found on openness to compassion of others (in the threshold of statistical significance) and fears of compassion from others. Fears of compassion from others significantly decreased, particularly from Time 1 to 3, and openness to compassion revealed some unexpected decreases in the first two weeks and increases in the last two, none of them significant (Table 4). However, when comparing the effects found on these outcomes before and after controlling fears of compassion for the self, no significant changes were found in the CFI group, once the same effects were already present in the previous study without controlling for fears of compassion for the self.

Finally, regarding fears of compassion from others as a covariate analysis (Table 5), some significant effects of fears of compassion from others over time were found on openness to compassion, describe and nonreacting factors of mindfulness (FFMQ). Particularly, openness to compassion of others revealed decreases in the first two weeks and increases in the last two, not significant in both cases, and describe and nonreacting factors revealed some increases across the four weeks, not significant as well (Table 6). Again, when comparing the results of these variables, before and after controlling fears of compassion from others, no significant changes were found in the CFI group, since the same effects were already present in the previous study, not controlling for fears of compassion from others.

Table 3. Means, standard deviations (SDs) and main (time) effects of the intervention in the CFI group, using fears of compassion for self (FCS) as covariate

Measures	Time	CFI Group		Time \times FCS _{ForSelf}			Time		
		Mean	SD	F	p	η^2p	F	p	η^2p
IES-R N _{CFI} = 33	1	30.76	18.415						
	2	24.06	16.219	.572	.533	.018	2.634	.092	.078
	3	21.55	20.493						
CES N _{CFI} = 33	1	46.00	19.049						
	2	46.36	20.033	2.092	.132	.063	3.333	.042	.097
	3	43.36	19.516						
OAS-2 N _{CFI} = 33	1	9.15	5.328						
	2	8.39	5.465	.331	.719	.011	2.056	.137	.062
	3	7.09	6.316						
FSCRS_{Self-Criticism} N _{CFI} = 30	1	21.73	9.202						
	2	19.10	8.202	.833	.415	.029	3.098	.067	.100
	3	17.63	8.327						
DASS_{Depression} N _{CFI} = 31	1	5.68	4.385						
	2	5.16	4.420	2.614	.482	.620	.583	.558	.020
	3	4.00	3.679						
DASS_{Anxiety} N _{CFI} = 31	1	3.29	3.447						
	2	2.58	3.117	.721	.491	.024	1.368	.263	.045
	3	2.48	3.171						
SIAS N _{CFI} = 31	1	30.84	15.221						
	2	31.71	15.934	1.246	.295	.041	1.475	.237	.048
	3	29.39	14.784						
CEAS_{Self-Compassion} N _{CFI} = 32	1	68.56	11.753						
	2	71.56	10.656	.057	.910	.002	.719	.462	.023
	3	72.62	12.320						
CEAS_{OpennessCompassion} N _{CFI} = 32	1	78.06	17.969						
	2	77.22	17.036	3.142	.050	.095	2.149	.125	.067
	3	79.38	15.653						
FCS_{FromOthers} N _{CFI} = 33	1	16.52	10.860						
	2	14.55	8.976	4.388	.017	.124	.848	.433	.027
	3	13.36	8.373						
FFMQ_{Nonjudging} N _{CFI} = 31	1	27.03	6.096						
	2	29.13	6.402	.400	.672	.014	3.948	.025	.120
	3	30.35	6.312						
FFMQ_{Look} N _{CFI} = 31	1	19.55	6.308						
	2	19.61	6.453	.097	.908	.003	2.587	.084	.082
	3	21.13	7.224						

Measures	Time	CFI Group		Time \times FCS _{ForSelf}			Time		
		Mean	SD	<i>F</i>	<i>p</i>	η^2p	<i>F</i>	<i>p</i>	η^2p
FFMQ_{ActAware} N _{CFI} = 31	1	25.00	6.403						
	2	26.35	6.581	.849	.433	.028	1.634	.204	.053
	3	26.55	7.302						
FFMQ_{Describe} N _{CFI} = 31	1	24.44	7.286						
	2	24.94	7.303	.665	.481	.022	.143	.813	.005
	3	25.90	7.208						
FFMQ_{Nonreacting} N _{CFI} = 31	1	19.81	4.861						
	2	20.03	4.861	2.236	.116	.072	1.105	.338	.037
	3	20.84	4.458						
TPAS_{Activated} N _{CFI} = 33; N _{control} = 25	1	21.45	5.482						
	3	19.61	5.684	1.129	.297	.037	3.747	.063	.114
TPAS_{Relaxed} N _{CFI} = 31	1	13.48	5.072						
	3	14.45	5.246	2.568	.120	.081	.181	.674	.006
TPAS_{Safe} N _{CFI} = 31	1	9.52	3.021						
	3	10.23	3.170	.429	.518	.015	1.691	.204	.055
SWLS N _{CFI} = 30	1	17.37	3.864						
	3	17.97	3.943	.001	.971	.000	.594	.447	.021

Note. significant effects ($p < .05$) are represented in bold. Since not all participants answered to all the questionnaires, the N for each measure was specified. IES-R = Impact of Event Scale-Revised; CES = Centrality of Event Scale; OAS-2 = Other As Shamer Scale – 2; FSCRS = Forms of Self-Criticizing and Self-Reassuring Scale; DASS = Depression, Anxiety and Stress Scale; SIAS = Social Interaction Anxiety Scale; CEAS = Compassion Engagement and Action Scales; FCS = Fears of Compassion Scales; FFMQ = Five Factor Mindfulness Questionnaire; TPAS = Types of Positive Affect Scale; SWLS = Satisfaction With Life Scale.

Table 4. Pairwise comparisons within the CFI group across time (T1, T2 and T3), using fears of compassion for self (FCS) as covariate

Measures	Time		CFI Group		
			Mean Difference	SE	<i>p</i>
CEAS_{OpennessCompassion} N _{CFI} = 32	1	2	.844	1.568	.594
	1	3	-1.313	1.908	.497
	2	3	-2.156	1.523	.167
FCS_{FromOthers} N _{CFI} = 33	1	2	1.970	1.093	.081
	1	3	3.152	1.131	.009
	2	3	1.182	.822	.161

Note. The mean difference is significant at the .05 level and represented in bold. Since not all participants answered to all the questionnaires, the N for each measure was specified. CEAS = Compassion Engagement and Action Scales; FCS = Fears of Compassion Scales.

Table 5. Means, standard deviations (SDs) and main (time) effects of the intervention in the CFI group, using fears of compassion from others (FCS) as covariate

Measures	Time	CFI Group		Time \times FCS _{FromOthers}			Time		
		Mean	SD	F	p	η^2p	F	p	η^2p
IES-R N _{CFI} = 33	1	30.76	18.415						
	2	24.06	16.219	.216	.765	.007	.558	.543	.018
	3	21.55	20.493						
CES N _{CFI} = 33	1	46.00	19.049						
	2	46.36	20.033	.017	.983	.001	.331	.719	.011
	3	43.36	19.516						
OAS-2 N _{CFI} = 33	1	9.15	5.328						
	2	8.39	5.465	.062	.940	.002	1.044	.358	.033
	3	7.09	6.316						
FSCRS_{Self-Criticism} N _{CFI} = 30	1	21.73	9.202						
	2	19.10	8.202	.251	.729	.009	1.881	.171	.063
	3	17.63	8.327						
DASS_{Depression} N _{CFI} = 31	1	5.68	4.385						
	2	5.16	4.420	.766	.469	.026	.173	.842	.006
	3	4.00	3.679						
DASS_{Anxiety} N _{CFI} = 31	1	3.29	3.447						
	2	2.58	3.117	.115	.891	.004	.808	.451	.027
	3	2.48	3.171						
SIAS N _{CFI} = 31	1	30.84	15.221						
	2	31.71	15.934	1.197	.310	.040	.458	.635	.016
	3	29.39	14.784						
CEAS_{Self-Compassion} N _{CFI} = 32	1	68.56	11.753						
	2	71.56	10.656	.725	.460	.024	.152	.811	.005
	3	72.62	12.320						
CEAS_{OpennessCompassion} N _{CFI} = 32	1	78.06	17.969						
	2	77.22	17.036	5.019	.010	.143	3.368	.041	.101
	3	79.38	15.653						
FCS_{ForSelf} N _{CFI} = 33	1	11.91	9.448						
	2	9.70	8.886	1.836	.168	.056	.202	.817	.006
	3	10.42	8.913						
FFMQ_{Nonjudging} N _{CFI} = 31	1	27.03	6.096						
	2	29.13	6.402	.092	.912	.003	2.467	.094	.078
	3	30.35	6.312						
FFMQ_{Look} N _{CFI} = 31	1	19.55	6.308						
	2	19.61	6.453	.773	.466	.026	.292	.748	.010
	3	21.13	7.224						

Measures	Time	CFI Group		Time \times FCS _{FromOthers}			Time		
		Mean	SD	F	p	η^2p	F	p	η^2p
<i>FFMQ_{ActAware}</i> N _{CFI} = 31	1	25.00	6.403						
	2	26.35	6.581	.256	.775	.009	.460	.633	.016
	3	26.55	7.302						
<i>FFMQ_{Describe}</i> N _{CFI} = 31	1	24.44	7.286						
	2	24.94	7.303	7.137	.003	.198	1.764	.187	.057
	3	25.90	7.208						
<i>FFMQ_{Nonreacting}</i> N _{CFI} = 31	1	19.81	4.861						
	2	20.03	4.861	3.466	.038	.107	1.786	.177	.058
	3	20.84	4.458						
<i>TPAS_{Activated}</i> N _{CFI} = 31	1	21.45	5.482						
	3	19.61	5.684	3.920	.057	.119	7.152	.012	.198
<i>TPAS_{Relaxed}</i> N _{CFI} = 31	1	13.48	5.072						
	3	14.45	5.246	1.617	.214	.053	.118	.734	.004
<i>TPAS_{Safe}</i> N _{CFI} = 31	1	9.52	3.021						
	3	10.23	3.170	2.695	.111	.085	.445	.510	.015
<i>SWLS</i> N _{CFI} = 30	1	17.37	3.864	1.310					
	3	17.97	3.943		.262	.045	.085	.773	.003

Note. significant effects ($p < .05$) are represented in bold. Since not all participants answered to all the questionnaires, the N for each measure was specified. IES-R = Impact of Event Scale-Revised; CES = Centrality of Event Scale; OAS-2 = Other As Shamer Scale – 2; FSCRS = Forms of Self-Criticizing and Self-Reassuring Scale; DASS = Depression, Anxiety and Stress Scale; SIAS = Social Interaction Anxiety Scale; CEAS = Compassion Engagement and Action Scales; FCS = Fears of Compassion Scales; FFMQ = Five Factor Mindfulness Questionnaire; TPAS = Types of Positive Affect Scale; SWLS = Satisfaction With Life Scale.

Table 6. Pairwise comparisons within the CFI group across time (T1, T2 and T3), using fears of compassion from others (FCS) as covariate

Measures	Time	CFI Group			
		Mean Difference	SE	p	
<i>CEAS_{OpennessCompassion}</i> N _{CFI} = 32	1	2	.844	1.534	.586
	1	3	-1.313	1.819	.476
	2	3	-2.156	1.519	.166
<i>FFMQ_{Describe}</i> N _{CFI} = 31	1	2	-.493	.519	.350
	1	3	-1.461	.724	.053
	2	3	-.968	.548	.088
<i>FFMQ_{Nonreacting}</i> N _{CFI} = 31	1	2	-.226	.649	.730
	1	3	-1.032	.532	.062
	2	3	-.806	.652	.226

Note. Mean differences are significant at the .05 level and represented in bold. Since not all participants answered to all the questionnaires, the N for each measure was specified. CEAS = Compassion Engagement and Action Scales; FFMQ = Five Factor Mindfulness Questionnaire.

Discussion

Over the years, compassion has been demonstrated to be one of the most important qualities of the human mind, with increasing evidence of its physiological and psychological benefits and potential gains for psychotherapy (Gilbert, 2005, 2009, 2010). The present study aimed to assess the effectiveness of a brief compassion focused imagery intervention on reducing centrality and self-reported traumatic qualities of shame experiences, as well as their impact on psychological adjustment and well-being.

Shame Memory Priming Variables

What kind of shame experiences are more frequent?

Results from Shame Memory Priming revealed that the most prevalent shame experiences recalled by participants were situations where they had devaluing behaviors or negative personal attributes exposed in front of others (23.6%), following by situations where they felt criticized or rejected by a significant other and situations where they have been negatively commented on about physical appearance issues (19.1% in both cases). Interestingly, similar results were found in Matos (2012) and Matos & Pinto Gouveia (2014) studies. These findings add empirical support to the existing literature, reinforcing that shame may be experienced in a wide range of situations, all of which involving a primary threat to self-identity and social existence and loss of attractiveness in the eyes of others (Matos & Pinto Gouveia, 2014). Additionally, since humans are highly regulated within social relationships and feel the need to create positive affect and images of themselves in the mind of others (Matos et al., 2011), shame experiences occurring in public can represent a higher threat to the social self, maybe explaining the great majority of participants recalling a shame experience that occurred in public with acquaintances watching it (59.4%). Again, similar results were found in Matos (2012) study, which further sustains theoretical and empirical assumptions on the public nature of shame, considering it is primarily related to the public exposure of negative aspects of self and intense feelings of public scrutiny (Gilbert, 1998c; M. Lewis, 1992, 2003; Smith et al., 2002).

Who are the shamers?

As demonstrated by several studies (e.g. Cacioppo, et al., 2000; Gilbert, 1989, 2009a), feeling cared for, supported and valued by others significantly influences

physiological and emotional regulation and promotes feelings of safeness and soothing. Contrarily, feeling rejected, uncared and unvalued is one of the most power elicitors of stress responses (Eisenberger, 2011; Dickerson & Kemmeny, 2004). Shame experiences have been demonstrated to be emotionally rich, with shame affects binding with and being textured by a mixture of primary emotions, especially anxiety, anger and sadness (Gilbert, 1998c, 2002a; Kaufman, 1989; Nathanson, 1994). The shame experiences recalled by participants in the current study were not exception, with participants' recalling mostly feelings of shame, followed by sadness and humiliation, similarly to Matos (2012) findings. This emotional component should not be disregarded when working with shame memories, since it may impact on one's sense of self and self-to-self relationship (Gilbert & Irons, 2005) and on associated psychopathological symptoms.

Participants mostly recalled shame experiences involving attachment figures (father, mother, or both) as shamers, followed by peers, particularly colleagues. These results are in line with increasing evidence showing that shame is widely rooted in early interactions with attachment figures, and with the biopsychosocial model of shame that, besides specific interactions that occur within the family, also highlights shame experiences occurred in wider social groups (Gilbert, 1998, 2002, 2007).

Interestingly, there are studies showing that shame memories with attachment figures and shame memories with others might be differentially associated with shame and psychopathology. Apparently, shame memories involving attachment figures are more related with internal shame and depression, and shame memories involving others are more associated with external shame (Matos & Pinto Gouveia, 2014).

Shame has a multifaceted nature, so it is important to remember that shame memories are distinct and may operate in different ways, depending on their specific characteristics (Matos & Pinto Gouveia, 2014). Matos (2012) found that these shame experiences features were all significantly associated with the traumatic and centrality qualities of shame memories, which highlights the idea that the phenomenological characteristics influence the experiencing of shame memories and therefore should be considered.

Practice Qualities: Intra and Inter-Group Comparisons

After listening to the audio exercise for the first time, differences between participants' reported qualities of the audio heard immediately emerged. Thus,

participants in the CFI group heard significantly more of the audio meditation and considered it significantly more engaging and less boring than participants in the control group. These results constitute a primary indicator of fitness of the CFI audio meditation intervention. However, to a more strengthened intervention, it would be optimal that significant differences between groups could also emerge regarding feelings of soothing or irritation. Particularly, the control group rated the audio exercise as 6 out of 10 soothing, which may be a bit higher than what would be ideal for a neutral exercise, increasing the likelihood of producing some unexpected effects in the control group, as will be discussed later.

Further, the fitness of the CFI audio meditation intervention was also verified within the four weeks of intervention, since participants' in the CFI group reported significant higher levels of embodiment (of the compassionate competencies stimulated through the CFI meditation in their daily lives), than participants in the control group.

When exploring the evolution of the quality of the practice across the four weeks of intervention, results revealed significant decreases in practice frequency in the last two weeks (from Time 2 to 3 of the assessment) in the CFI group. First, since the CFI meditation exercise relied on participants' self-directed practice, the possibility of participants not following the suggested schedule (i.e. once a day) should be considered. Yet, there is another possible explanation for this that should be contemplated. This intervention was administered under pandemic circumstances (Covid-19). We estimate that the beginning of the pandemic corresponded to the second half of the intervention, which coincides with the significant decrease of practice frequency, so the possibility that the circumstances associated with the pandemic may have interfered with the quality of the practice of the audio exercise should not be discarded.

Based on the assumption that the quality of the practice can widely influence the effectiveness of compassionate mind training (Matos et al., 2018), the relationship between participants' practice of the CFI intervention and the variables under study outcomes will also be explored.

Study 1. The Effects of a Brief CFI Meditation Intervention: Intra and Inter-Group Changes Across Time

Intra-Group Changes Across Time

Since we were interested in assessing the effects of the CFI intervention on the variables under study, we explored changes occurring in the CFI group over the 4 weeks of assessment. Considering the hypotheses of the current study, we expected to find significant improvements in the two compassion flows assessed (self-compassion and openness to compassion of others), as well as significant decreases in fears of compassion (for self and from others), after the CFI intervention (*H1*). This hypothesis was only partially corroborated, since no significant increases over the four weeks were found for self-compassion or openness to compassion of others, and significant decreases in fears of compassion were only found for fears of compassion from others, particularly from Time 1 to 3 of the assessment, in the CFI group.

Openness to compassion of others revealed some unstable results, since a decrease was verified in the first 2 weeks of intervention, shifting for an increase in the last 2 weeks, none of them significant. This can possibly be in line with Matos, Duarte, Duarte, Pinto Gouveia and col. (2017) conjecture that helping people to become more trustworthy and open of others' helpfulness could require longer work, since it can have resistances located in the early life interpersonal experiences. So, this can be intimately related with fears of compassion from others. Although CFI intervention could have triggered some early resistances which were mirrored in the decreases in openness to compassion of others observed in the first 2 weeks of intervention, the significant decrease of fears of compassion from others as time of intervention progressed may have contributed for an increase to emerge in the last 2 weeks in openness to compassion of others. However, it is noteworthy that even though fears of compassion from others had consistently and significantly decreased across the four weeks, it may not have been enough to produce significant increases in openness to compassion of others. This seems to suggest that working with these fears in order to settle them may be necessary before conducting a compassion-based intervention, as it will be further discussed in Study 2.

Additionally, self-compassion revealed some improvements over the 4 weeks, although this did not reach statistical significance. Not so consistent were results of fears of compassion for self: a decrease was found in the first two weeks of the intervention,

but an unexpected increase was found in the last two (although in a non-significant way on both periods). Many factors could have been involved in such results. One possible explanation for this can be related to the fact that some fears were triggered as self-compassionate competences started to develop. Some people can find becoming compassionate threatening, seeing compassion as self-indulgent or a weakness (Gilbert & Mascaro, 2017). In fact, participants' baseline levels of self-compassion were not very high, so it is possible that participants started to feel some resistances about developing higher compassionate competencies. On the other hand, it should be considered that compassion is not static; rather, it occurs in a social-interactional context (Gilbert, 2014). As referred above, the beginning of the pandemic coincided with the second half of the intervention. A possibility to consider is the fact that a context characterized by fear, worry and insecurity naturally could have made it difficult to generate feelings of safeness and contentment and so downregulate the threat system through the development of affiliative and motivational states, such as self-compassion. However, contrarily to self-compassion, openness to compassion of others revealed some increases during this period, besides the pandemic circumstances. Nonetheless, it is during difficult times that we feel a greater need of seeking for others caring and comforting support in order to increase feelings of warmth and safeness that could attenuate feelings of worry and anxiety (due to the overactivation of the threat system), so we can become more open to receive compassionate actions and emotions from others. Additionally, it should be noted that practice frequency significantly decreased during this period. Since practice frequency was found to be associated with the frequency and easiness of embodiment of compassionate competences (Matos, Duarte, Duarte & Gilbert et al., 2017), its decrease may have played an interfering role on the development of those skills.

Initially, we expected that self-reported traumatic qualities of the shame memory as well as its centrality to one's identity would significantly decrease over time in the CFI group (*H2*). Based on previous studies showing that compassion mediated associations between shame memory characteristics and psychological outcomes (Matos, Duarte & Pinto Gouveia, 2017; Steindl et al., 2018), it was expected that improved compassion competences would reveal an impact on shame memories experiencing, and so reduce its traumatic and centrality characteristics. However, since participants' compassionate skills were not sufficiently developed, this may justify that *H2* was not totally corroborated, once only self-reported traumatic qualities of shame memories significantly decreased

and no significant decreases in centrality to one's identity of the shame memories were found.

Anyhow, it is possible that the significant decrease in fears of compassion from others and the non-significant increase presented by self-compassion had still produced some effects in participants' experiencing of shame memories. In fact, the majority of participants in the CFI group considered to be able to incorporate the referred compassionate competences on daily life situations (practice embodiment). So, although those competences had not been fully developed, the improvements verified (significant or not) could have produced some benefits in the variables under study. In this case, self-reported traumatic qualities significantly decreased, particularly from Time 1 to 2 and from Time 1 to 3 and centrality to one's identity increased, although not significantly, over the 4 weeks of intervention. This is supported by studies showing that fears of compassion from others (and for self) and self-compassion mediated traumatic qualities and centrality to one's identity of shame memories on psychological outcomes (Matos et al., 2018; Matos, Duarte & Pinto Gouveia, 2017).

Additionally, it seems that the CFI intervention also produced some expected benefits over time in participants' psychological adjustment. Results were partially in line with *H3*, once significant decreases over the four weeks were found for external shame (from Time 1 to 3, and from Time 2 to 3), self-criticism (from Time 1 to 2 and from Time 1 to 3) and depression (from Time 1 to 3). Although not significantly, anxiety also decreased over time. These results are in accordance with previous studies showing the benefits of compassionate mind training on these psychological outcomes (Matos, Duarte, Duarte & Pinto Gouveia et al., 2017; Kirby et al., 2017).

Regarding social anxiety, results were not so consistent, since it revealed unexpected increases in the first 2 weeks of intervention, and greater decreases in the following and last 2 (none of them significant). As referred and explained above, the first two weeks were also marked with some not expected decreases of openness to compassion of others, which means that participants' felt less able to be receptive, open and positively respond to compassionate actions and emotions of others. Social anxiety is characterized by intensified fear or anxiety in social situations in which the individual may be subject to the scrutiny of others (APA, 2014); for this reason, social anxious people tend to isolate themselves in order to avoid social criticism or rejection. Thus, if one does not feel capable of receiving compassion of others, social relationships may be

compromised, and people may start to isolate themselves. So, participants' decreases in openness to compassion of others in the first two weeks of intervention could have possibly contributed for an increase in social anxiety symptoms at the same time. This may be supported by studies showing that fears of receiving compassion (from the self and from others) predicted social anxiety (Cunha et al., 2015), particularly fears of compassion from others (Caiado & Salvador, 2017). In fact, once increases in openness to compassion of others started to emerge, participants' reported decreases in social anxiety levels, and it should be noted that the decreases observed were much more pronounced (from Time 2 to 3) than the initial increase (from Time 1 to 2).

Finally, we expected to find significant higher positive affect and life satisfaction (*H4*) over time in the CFI condition, which was not corroborated by the present results. Regarding positive affect, we saw that, although not significantly, relaxed positive affect and safe positive affect revealed some increases over time in the CFI group. However, the opposite was verified in activated positive affect, which decreased over the four weeks, not significantly as well. Similar effects were found in Matos, Duarte, Duarte, Pinto Gouveia and col. (2017) study, with only safe and relaxed positive affects increasing through compassionate mind training, but not the activated positive affect. As explained in Matos, Duarte, Duarte, Pinto Gouveia and col. (2017) research, this can be associated with the fact that CFT focuses on care-focused motivation and affiliation, which supports feelings of safeness and contentment (Gilbert, 2009). On the other hand, the breathing exercises incorporated in this intervention (soothing rhythm breathing) aim to generate a sense of slowing down, which is the opposite of excited activation, justifying the decrease found in the current study in activated positive affect (and increases in relaxed positive affect (Matos, Duarte, Duarte & Pinto Gouveia, et al., 2017). Increases across time were also found for life satisfaction, but still not significant. However, since compassionate competencies, particularly self-compassion, have been demonstrated to be associated with increases in individuals' satisfaction with life (Neff & Germer, 2013), it is possible that the increases found in life satisfaction is related to the improvements revealed for self-compassion over time in the CFI group, although they did not reach statistical significance.

Interestingly, some not hypothesized significant increases were found in the CFI group regarding nonjudging (from Time 1 to 2 and from Time 1 to 3) and look (from Time 1 to 3 and from Time 2 to 3) facets of mindfulness. Although not significantly, act

with awareness, describe and nonreacting facets also increased over time. Mindfulness has been defined as bringing one's attention to the present moment, in a nonjudgmental or accepting way (Kabat-Zinn, 1994). Other referred aspects of mindfulness include nonidentification and nonreactivity experiences and an insightful understanding (Bergomi et al., 2012). Not surprisingly, it has been associated with compassionate competences, particularly with self-compassion (e.g. Bishop et al., 2004; Brown & Ryan., 2003; Hayes & Feldman, 2004; Shapiro, et al., 2006; Shapiro & Schwartz, 2005), since (self)compassion involves a recognition of the experiences (of the self and others), which contrasts with overidentification with those experiences. Therefore, a compassionate attitude towards oneself requires one to adopt a nonjudgmental and receptive state of mindfulness (Neff, 2003). In fact, Neff (2003) defines mindfulness as one of the self-compassion factors, making mindfulness inseparably associated with self-compassion. Thus, it is possible that the brief CFI intervention had produced some effects (although not significant) on mindfulness facets, particularly once self-compassion showed (not significant) improvements over time.

When generally analyzing the significant changes' timing on the variables under study in the CFI group, results seem to indicate that an intervention based on Compassion Focused Imagery could benefit from a more extended time of training, since all variables seem to show consistent changes in the expected direction as time progresses; in fact, all the variables showing significant effects over time (e.g. fears of compassion from others, self-reported traumatic qualities of the shame memory, external shame, self-criticism, depression, nonjudging and look facets of mindfulness) revealed a significant change across the 4 weeks of CFI intervention (from Time 1 to 3). This idea is further supported by results of a pioneer similar study that aimed to assess the effectiveness of a briefer CFI intervention over 2 weeks within a similar sample size; in Watson (2019) study, no significant effects of the CFI intervention were found on the variables under study. This suggests that a more extended intervention could be needed to produce more significant outcomes.

Inter-Group Changes Across Time

For a further understanding of the real effects produced through the 4-weeks CFI intervention, we explored results in the CFI group in comparison with the control group (time \times group interaction effects).

Significant time \times group interaction effects were only found for depression, showing that participants' in the CFI group significantly experienced lower depressive symptoms over the time of intervention, in comparison with the control group. This only partially corroborates *H7*, since no time \times group interaction effects were found for external shame, self-criticism, anxiety or social anxiety. Nonetheless, this further supports findings showing the effectiveness of a compassion-based intervention in reducing depressive symptoms (e.g. Gilbert & Procter, 2006; Kirby et al., 2017; Steindl et al., 2018) and contributes with useful information about the effectiveness of CFI in the treatment of these psychological difficulties.

Thus, the remaining hypotheses regarding inter-group significant effects were not corroborated: no significant time \times group interaction effects were found for the two flows of compassion assessed (self-compassion or openness to compassion) nor fears of compassion (for self or from others) (*H5*), traumatic qualities or centrality to one's identity of the shame memory recalled (*H6*), nor higher positive affect or life satisfaction (*H8*).

The lack of significant time \times group interaction effects on the variables under study seems to be justified by some not expected effects observed in the control group across the four weeks of intervention. Many factors could be involved in the results observed for the control group. For instance, it is noteworthy that forms of guided imagery were used in both conditions. CFT and compassionate mind training uses practices such as imagery to facilitate the development of the soothing/contentment system and so promoting compassionate motivations and emotions towards ourselves and others (Gilbert, 2010). In fact, as mentioned above, the control group rated the audio exercise as 6 out of 10 soothing. Thus, it is possible that this had contributed for the development of some compassionate competences in the control group (e.g. self-compassion significantly increased over the 4 weeks in the control group) and, according to the assumption that these competences may have an impact in reducing traumatic qualities and centrality to one's identity of shame memories (Matos, Duarte & Pinto Gouveia, 2017; Steindl et al., 2018), it could possibly explain decreases obtained in those shame memory characteristics in the control group (significantly for traumatic qualities and not significantly for centrality to one's identity). The improved compassionate competences allied with a relaxation response due to the redirection of attentional focus to imagined states (produced by the imagery exercise) could also be involved in the (non-significant)

improvement of positive affect (e.g. relaxed and safe positive affects) reported by the control group (Bigham et al., 2014; Gilbert, 2009). It is also worth referring that the control group revealed significant higher levels of life satisfaction than the CFI group. However, this may not have been a consequent effect of the intervention. Rather, the control group had already significantly higher baseline levels of life satisfaction, in comparison with the CFI group. This fact may have accounted for the lack of significant group differences in this variable. Additionally, and besides these significant differences between groups in life satisfaction baseline levels, results showed a more pronounced increase in the CFI group than in the control group, although not significant in none of them, which seems to be another indicator of CFI intervention success. Nonetheless, as previously referred, compassion is subjected to social-interactional influences. As may have been a possibility in the CFI group, participants in the control group could have also experienced a greater need to receive compassionate actions and emotions from others during difficult times associated with the pandemic, which could have contributed to improved compassionate competences.

However, and as discriminated above, some of the variables under study changed in the expected direction in the CFI group, although not sufficiently to mitigate the effects observed in the control group and so produce more significant differences between groups over the four weeks of intervention (time \times group interaction effects). For instance, and although not significantly in terms of time \times group interaction effects, fears of compassion from others, external shame, self-criticism, and anxiety showed greater decreases in the CFI group than in the control group. On the other hand, nonjudging, look, act with awareness and nonreacting facets of FFMQ showed greater increases in the CFI group, in comparison with the control group. Interestingly, external shame, self-criticism and anxiety revealed consistent decreases over the four weeks in the CFI group (although not significantly), as well as depression (significantly), while in the control group they actually increased (although not significantly in both cases) in the last two weeks. It may suggest that the CFI meditation intervention could have played a protective role against the psychological distress caused by pandemic circumstances in participants in the CFI group. Overall, these results seem to be indicators of intervention success.

Study 2. The Impact of Self-Criticism and Fears of Compassion on Participants' Response to a Brief CFI Meditation Intervention

We also explored if participants' levels of self-criticism or fears of compassion produced some impact on participants' responses to the CFI intervention.

H9 was not corroborated, since no significant effects of self-criticism over time on the variables under study were found. It is widely known that high self-critic people can offer some resistance to the development of compassionate competences (Gilbert et al., 2011, 2012). However, the baseline levels of self-criticism in the CFI group were not very high ($M = 21.81$; $SD = 9.06$), so it may explain the lack of significant impacts of self-criticism in the current study. Despite the results obtained in this study, having in mind the current literature, the possible impact of self-criticism should not be disregarded when conducting this type of research using compassion-based interventions.

On the other hand, a significant effect over time of fears of compassion for self was found on fears of compassion from others and openness to compassion of others, which corroborates our hypothesis (*H10*). In fact, fears of compassion for self has been demonstrated to be highly and significantly associated with fears of compassion from others. As Kirby (2019) stated, compassion seems to be “*contagious*”. For instance, if one is compassionate to another, it may increase the likelihood of that person being compassionate to themselves, and possibly to another person (Gilbert, 2014; Klimecki et al., 2014; Seppälä et al., 2017). Nonetheless, the opposite may occur if individuals are fearful of compassion. In other words, if one feels reluctant of being compassionate to the self, the likelihood of feeling that way about being the recipient of compassion from others may increase. Furthermore, and particularly regarding experiences of shame, they can fuel a sense of the self as unworthy of self-compassion but may also condition the care of others to trigger a threat response, which compromises the openness to compassion of others (Gilbert, 2014). However, in the present study, when comparing the effects found on this variable before and after controlling fears of compassion for self, no significant changes were found in the CFI group.

Similar results were found regarding fears of compassion from others as covariate, since it produced significant effects over time on some variables under study, corroborating *H11*. Fears of compassion from others revealed a significant effect over time on openness to compassion of others, which is plausible, since fears of compassion

from others is related to a fearful reaction to the openness and responsiveness to the compassion and care from others (Gilbert et al., 2014). More surprising were the significant effects over time of fears of compassion from others on some facets of mindfulness, namely describe and nonreacting. First, this further supports the present study findings showing that the CFI meditation intervention may have produced some effects on mindfulness competences. The describe facet of mindfulness is associated with recognizing, labeling and expressing internal experiences with words (Baer et al., 2008; de Bruin et al., 2012). Thus, it may be hypothesized that if one is less open to receive compassionate actions and emotions from others (fears of compassion from others), one may also feel less capable or more afraid of describing and expressing emotional states to others, considering it to be a weakness or due to fear of being judged by others (Fischer et al., 2011; Gilbert & Mascaro, 2017). Moreover, the nonreacting facet is related to the “tendency to allow thoughts and feelings to come and go, without getting caught up in or carried away by them” (Baer et al., 2008). In fact, and as mentioned above, compassion also involves a recognition of the experiences without overidentifying with them (Neff, 2003). Specifically, it may be possible that if one is resistant to receiving compassionate feelings and actions from others (fears of compassion from others), it may also be reflected in nonreacting abilities, since one may find it difficult to allow those feelings (from others, or from self) to emerge and not react to them. However, and besides these hypothesized relationships between these variables, in the current study, when comparing the effects found on openness to compassion, describe or nonreacting facets before and after controlling fears of compassion from others, no significant changes were found over time in the CFI group.

A possible explanation for the lack of significant influences of fears of compassion in this study could be similar to the one given regarding self-criticism: the baseline levels in the CFI group of fears of compassion (for self and for others) were not very high ($M = 11.91$; $SD = 9.45$; $M = 16.52$; $SD = 10.86$, respectively).

Although this wasn't an issue in the current study, fears of compassion for self and from others demonstrated to produce some influence in other psychological outcomes that could have had an impact on the success of the CFI intervention if, for instance, and based on the assumption that people high in fears of compassion can find it difficult to generate compassionate motivations towards the self and others, baseline levels were higher on those characteristics. Nonetheless, these findings are in accordance with the assumption

that self-compassion and receiving compassion from others are especially susceptible to avoidant and fear reactions (Gilbert, 2010). Fears of compassion can be truly problematic, given that affiliative emotions and behaviors, such as compassion, constitute major regulators of threat-based emotions and social isolation (Depue & Morrone-Strupinsky, 2005; Gilbert, 2010; Mikulincer & Shaver, 2007), making one more vulnerable to mental health difficulties. However, it is possible, through compassionate mind training, to settle those fears and resistances (Jazaieri et al., 2012). Thus, these findings highlight the importance of working with those difficulties when using compassion-based interventions, which is line with previous studies showing important therapeutic effects of helping people resolve their fears and resistances to compassion (Gilbert & Procter, 2006; Laithwaite et al., 2009).

Clinical Implications

The current study aimed to assess the effectiveness of a brief CFI intervention on reducing self-reported traumatic qualities and centrality to one's identity of shame memories, as well on producing benefits to psychological adjustment and well-being. Although some factors could have possibly lessened the intensity of the CFI intervention, the detrimental characteristics of shame memories still revealed predicted decreases (significantly in the case of self-reported traumatic qualities of the shame experience recalled). Even though this study had been conducted within a non-clinical sample, the current findings generally support the effectiveness of CFI when working with shame memories, given the transdiagnostic nature of the processes studied. CFI also proved to be effective on reducing psychological distressing effects of shame memories, particularly depressive symptoms (although external shame, self-criticism and anxiety also revealed some non-significant decreases), as well as producing benefits to well-being, since positive affect and life satisfaction revealed some increases, although not significant. Plus, noteworthy are the findings supporting that fears of compassion should not be neglected when working with compassion-based interventions. Particularly in psychotherapy, individuals may be helped to slowly attenuate their fears, blocks and resistances to compassion, in order to being able to develop compassionate motivations and qualities towards the self and others.

Strengths, Limitations and Future Studies

This study adds valuable information to the current literature on shame memories, as it contributes to first attempts at attenuating detrimental shame memories characteristics through a brief CFI intervention.

The current study allowed to assess the effects of a CFI meditation intervention across four weeks, measuring longitudinal differences within conditions (intra-group) and between conditions (inter-group). As previously mentioned, a similar investigation using a 2-week CFI intervention was conducted (Watson, 2019). Since not so successful results were reported, the current study considered those limitations in an attempt to optimize the CFI intervention effectiveness. For instance, the intervention period was extended to four weeks, which results suggested to be beneficial. An additional limitation Watson (2019) study pointed out was the non-assessed practice frequency of the audio exercise. In order to strengthen intervention effects, during the current intervention period, emails reminding participants to practice the audio meditation exercise were weekly send, and participants were asked to answer to a practice diary in the beginning of assessment Times 2 and 3, so we could analyze the results taking the quality of the practice into consideration (based on practice frequency, helpfulness and embodiment indices).

However, the present study also holds some limitations that should inform future research. First, it is noteworthy that this investigation was conducted within a modest sample size, that for some variables was even more reduced since not all participants answered to all the questionnaires due to a programming error. Altogether, participants' responses to the CFI intervention changed in the predicted directions, so we have reasons to believe that analyses may have just been too underpowered to detect significance and that more significant results would be found if it was conducted within a larger sample. Additionally, due to the reduced sample size, it was not possible to control gender differences regarding sociodemographic variables (i.e. meditation experience) in the variables under study outcomes.

Furthermore, it is possible that the CFI intervention was too underpowered to produce more significant results in participants' response to the intervention. Future studies should maximize the likelihood of cultivating more powerful effects by using a program with several compassion-focused exercises. For instance, Matos, Duarte, Duarte, Pinto Gouveia and col. (2017) found significant improvements in compassion compared

to a waitlist control, using a much larger sample size and a more intensive intervention than the single imagery exercise used in this study (i.e. participants were provided with two hours of psychoeducation and six audio exercises to practice). Moreover, it should also be noted that the neutral audio exercise had possibly produced some undesirable effects within the control group, compromising time \times group interaction effects, so future studies may consider using a neutral audio that doesn't include forms of guiding imagery.

The use of only self-report measures constitutes another limitation, since they are easily biased through expectancy and practice effects. In fact, particularly the battery of self-report instruments of Time 1 required a quite lengthy filling time (approximately thirty minutes). Future studies could consider using self-report measures along with structured interviews and physiological measures. For instance, data regarding stress levels changes could be collected (e.g. cortisol levels; Rockliff et al., 2008), as well as sympathetic responses characteristic of shame and self-criticism (e.g., heart rate variability; Matos, Duarte, Duarte & Pinto Gouveia et al., 2017).

Nonetheless, as already mentioned, the majority of the results typically changed in predicted directions, which suggests that replications of this study with methodological improvements may result in even more significant support of our hypothesis.

Conclusion

Shame can be an overwhelming emotional experience, involving several threats to one's sense of self and self-identity as a social agent. When these experiences are recorded in autobiographical memory as traumatic ones, they can become central to one's life narrative, guiding emotional, attentional and cognitive processing and social behavior, which can ultimately make one vulnerable to several psychopathological outcomes. The present findings generally support the idea that compassion can be a powerful antidote when working with these shame memories characteristics and its distressing effects on psychological adjustment and well-being. Nonetheless, and despite the benefits that improved compassionate competences can have on mental health and well-being, as demonstrated by the current study and previous research, particularly self-compassion and receiving compassion from others can trigger avoidant and fearful reactions. Thus, when working with shame memories and addressing their detrimental effects on well-being through compassion-based interventions, one's fears, blocks and resistances to compassion should never be disregarded. In line with the major aim of this

study, these findings contribute to a better understanding of phenomenological, centrality and traumatic characteristics of shame memories and how to work with them and adds useful information regarding the possible usefulness and effectiveness of CFI.

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