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Positive Effects and Validation of a Brief Attachment-Based Compassion Therapy Intervention Program

Efectos positivos y validación de un programa de intervención breve centrado en la terapia de compasión basada en los estilos de apego

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Abstract:

Objectives: This study analyzes the validation and effects of a brief attachment-based compassion therapy (ABCT) intervention. Its specific aim was to assess the efficacy of this brief protocol in improving compassion and other related variables. Method: The intervention consists of two five-hour sessions in a controlled trial with one intervention group (ABCT) and one control group. A short questionnaire focusing on compassion and other related variables (transcendence beliefs, happiness, endogroup solidarity, and global identity) was administered both before and after the intervention, Participants in the experimental group comprised 17 healthy adults (i.e., students and university academic personnel) taking part in an ABCT intervention. The control group comprised 44 participants who did not take part. Results: The results showed that, in comparison with the control group, the brief ABCT intervention significantly improved compassion, which was its main aim; and further analysis showed that it also significantly increased transcendence beliefs and endogroup solidarity. Moreover, the ABCT intervention was empirically validated. Conclusions: These results confirm and validate the potential of a brief ABCT intervention.
Keywords: intervention; compassion; transcendence beliefs; solidarity.

Resumen:

Objetivos: Este estudio pretende analizar la validación y los efectos de una intervención breve centrada en la Terapia de compasión basada en los estilos de apego (ABCT). Específicamente, se trata de evaluar la eficacia de este breve protocolo para mejorar la compasión y otras variables relacionadas. Método: La intervención consta de dos sesiones de cinco horas, en un ensayo controlado con un grupo de intervención (ABCT) y un grupo control. Antes y después de la intervención, se administró un cuestionario, centrado en la compasión y otras variables relacionadas (creencias de trascendencia, felicidad, solidaridad endogrupal e identidad global). Los participantes en el grupo experimental fueron 17 adultos sanos (estudiantes y profesores universitarios) que asistieron a una intervención de compasión basada en ABCT. El grupo de control estuvo compuesto por 44 participantes que no asistieron a la intervención. Resultados: Los resultados mostraron que en comparación con el grupo control, la intervención breve ABCT mejoró significativamente la compasión, que era el objetivo principal de la intervención, y un análisis posterior mostró que también aumentaron significativamente las creencias de trascendencia y la solidaridad endogrupal. Además, la intervención ABCT fue validada empíricamente. Conclusiones: Estos resultados confirman y validan el potencial de una intervención breve en ABCT.
Palabras clave: intervención; compasión; creencias de trascendencia; solidaridad.

Introduction

Compassion is currently viewed as a key construct because caring for others and ourselves is essential for the development of positive emotional states and achieving more humanity and effectiveness in organizations (Frost 1999; Hoffmann et al. 2011; Lilius et al. 2012). In the 19th century, Victor Hugo stated that there was nothing more powerful than an idea whose time had come, and this is what has occurred with the concept of compassion. Although there had been previous research in the clinical field, the concepts of compassion and organization were not brought together until 1999 (Frost, 1999), thus opening up new possibilities for applied research.

Compassion refers to a process in which human beings pay attention to suffering, feel an empathic concern that allows them to connect emotionally with other people who are suffering, and respond compassionately, i.e., by performing a series of actions in order to reduce, alleviate, or make that suffering more bearable (Kanov et al., 2004). Generally, compassion has been defined as a positive construct that involves: (1) recognizing and understanding the universality of suffering, (2) feeling emotionally connected to the suffering of others, (3) tolerating uncomfortable feelings generated as part of remaining mindful and accepting the suffering of others, and (4) being motivated to act to alleviate suffering (Strauss et al., 2016).

Further, Gilbert (2015) defines compassion as a deep awareness of the suffering of oneself and others, along with the desire to help avoid it. This author describes a multicomponent biopsychosocial approach to compassion, based on the evolution of affective behavior that leads to compassion and that supports the newer approaches to psychotherapy. In relation to the caring motivation and the nature of attachment behaviors, he stresses the provision of a secure base (sources of protection, validation, encouragement, and guidance) and a safe haven (source of relief and comfort), together with physiological regulatory functions. At the same time, he explains that what transforms the basic motives of care into potentials of compassion is the way in which recent human cognitive competencies give rise to different types of “mental awareness” and “conscious intentionality” (Gilbert 2020).

Previous research has shown the existence of a series of skills and basic mechanisms that allow compassion towards others (dimensions based on Neff’s concept of self-compassion, i.e., compassion about oneself) to develop. Specifically, compassion (as well as self-compassion) is characterized by the development of three components (1) mindfulness (i.e., mindfulness anchored in the present, here and now), (2) kindness or goodness (i.e., warmth and understanding towards oneself and towards others), and (3) common humanity (i.e., suffering as a basic condition of human existence) (Neff 2003; Pommier 2011). Furthermore, Shonin et al. (2014) propose five psychological mechanisms that underlie the development of compassion: (1) positive affect (i.e., affective state formed by positive emotions), (2) positive thinking (i.e., the result of maintaining a positive and optimistic attitude), (3) empathy (i.e., emotion that involves feeling and understanding the feelings of others), (4) the improvement of interpersonal relationships (i.e., ties between two or more people), and (5) decreasing psychological distress (i.e., state of emotional suffering).

The results of previous research show that compassion is an effective basic tool for promoting wellbeing and reducing people's suffering (García-Campayo et al. 2017). Furthermore, compassion is also positively related to social connectivity (i.e., the ability to establish links with others), prosocial behaviors (i.e., voluntary behaviors in favor of others) (Desbordes et al. 2012; Leiberg et al. 2011), and an increase in positive affect, empathy, and interpersonal relationships (Shonin et al., 2014). Moreover, self-compassion (i.e., compassion towards oneself) is also positively related to altruistic behaviors (i.e., behaviors that tend to benefit others at the expense of the individual in question), organizational citizenship behaviors, and higher performance (Breines & Chen 2013; Chu 2016; Kemeny et al. 2012; Weng et al. 2013),

For example, a direct relationship between self-compassion and subjective happiness was demonstrated in a sample of 304 university students (Booker & Dusnmore 2018). Likewise, another study revealed the impact of compassion on improving psychological functioning and subjective wellbeing (Kirby, 2017). More recently, in a study with a sample of 255 individuals, Amutio et al. (2018) pointed out that compassion was associated with other key variables: (1) emotions (i.e., fun, interested, happy, self-confident) and positive self-transcendence (i.e., amazed, grateful, hopeful, inspired, love and closeness, serene, fascinated); (2) values of universality (i.e., justice , preservation of nature, and tolerance); (3) transcendence beliefs (i.e., connection with everything around them); (4) endogroup solidarity (i.e., subjective identification with a close and significant reference group); (5) fusion of identity (i.e., image that represents relationships with people of their kind, and with people in general); and (6) global humanitarian identity (i.e., supranational identification with humanity as a global community) and subjective wellbeing (i.e., general wellbeing, eudaimonic wellbeing, affective well-being, and social welfare). However, although there has been research on compassion, with positive results, it is still in its infancy, especially in organizational contexts.

These positive relationships can be enhanced through compassion-based interventions (CBIs). Authors such as Kirby et al. (2017) define CBIs as various standardized protocols that focus on the concept of compassion (although each from a theoretical position and based on key competences). Influenced by the Tibetan Buddhist tradition, they allow the development and cultivation of compassion and self-compassion, and they reduce suffering and increase wellbeing. These CBIs have demonstrated their relevance in reducing anxiety and depression (Leaviss & Uttley 2015), decreasing chronic pain (Costa & Pinto Gouveia 2011), decreasing inflammatory markers in patients with fibromyalgia (Montero-Marín et al. 2019), and reducing eating disorders (Kelly & Borairi 2014), post-traumatic stress (Held & Owens 2015), and personality disorders (Lucre & Corten 2013).

Specifically, compassion therapy based on attachment styles (attachment-based compassion therapy, ABCT) (García-Campayo & Demarzo, 2015) consists of 8 sessions (two and a half hours per session) and includes compassionate activities with different levels of complexity (i.e., receiving and giving compassion to oneself, to friends, to unknown people, and to problematic people), mindfulness techniques, and recognition of attachment styles. The main novelty of this protocol is that it can be administered not only to people with psychiatric problems, but also to healthy individuals, and that it focuses on attachment style, one of the

most important psychological constructs that explain an individual's interpersonal relationships (Garcia-Campayo, Navarro-Gil & Demarzo 2016; García-Campayo et al. 2017). This protocol was created for the purpose of developing an intervention that was better adapted to the cultural and social characteristics of Latin countries, such as Spain. In addition, it has demonstrated its efficacy both in the clinical population (e.g., in patients with fibromyalgia and depression; Montero-Marín et al. 2018) and in nonclinical contexts (Navarro-Gil et al. 2018).

The program used to conduct the intervention consists of a brief adaptation of the ABCT (García-Campayo & Demarzo 2015). The basic component of ABCT therapy is attachment. This element, which was already introduced in other models (Neff 2012; Gilbert 2015) is the focal point of the ABCT intervention. According to Bartholomew and Horowitz (1991), there are four basic attachment styles: secure, preoccupied, fearful and dismissing. Attachment styles influence our own image and that of others, so they are central to the relationship we maintain with ourselves and with others. Research has shown that the secure attachment style predicts higher levels of success and balance (García-Campayo 2020). The main objective of this ABCT protocol is to identify the individual's prevalent attachment style and understand its influence on his/her interpersonal relationships

Despite the effectiveness of the protocol, it was not possible in some organizational contexts to apply the conventional eight-session format due to time and financial constraints, creating the need for a shorter and less expensive intervention that was equally effective. Thus, the aim of the present study was to test the validation and effects of an ABCT program (García-Campayo & Demarzo 2015) in a brief format (two five-hour sessions) on healthy people, addressing the degree or level of compassion (i.e., degree of compassion people feels towards others) and its effects on other positive constructs found in previous research to be related to compassion. These constructs are transcendence beliefs (i.e., connection with everything that surrounds us), subjective wellbeing or happiness (i.e., degree of global wellbeing comprising general, eudaimonic, hedonic, and social wellbeing), endogroup solidarity (i.e., subjective identification with our reference group), and global identity (i.e., identification with humanity as a global community).

In this regard, we expected that, in comparison with the control group, the participants in the brief ABCT group would show a significant increase in compassion levels (*Hypothesis 1*) and improvement in compassion-related constructs, such as transcendence beliefs, happiness, solidarity, and global identity (*Hypothesis 2*).

Method

Participants and procedure

The study sample consisted of 61 subjects divided into an experimental group (participants in the brief ABCT intervention program) and a control group (who did not take part in the intervention). They were convenience groups (with pre-post measures) recruited from different

institutions. The distribution of the participants into each group was natural and not randomized. Specifically, the experimental group was composed of a total of 17 people recruited from a public university in Spain (nine graduate students on a master's degree program and eight academic personnel) (76% women and 24% men). Their participation in the intervention was voluntary and without any type of financial compensation, and they were provided with information on the study aims. In all, 76% of the sample were women (24% men) with a mean age of 38.8 years (SD = 10.72). The inclusion criteria in the experimental group were: being enrolled in the master's degree program (the compassion intervention was an activity that counted toward the master's degree) and giving informed consent. Prior to the first assessment (preassessment), the participants verified through a structured interview that the participants had not been diagnosed with any mental disorders and were not receiving any psychiatric treatment. This interview (10 minutes) was conducted by a research collaborator (a health psychologist) a few days prior to commencing the intervention. The control group was composed of 44 undergraduate students completing a Social Work degree at a different university. They voluntarily participated in the assessment, but did not receive any form of intervention (passive control group). These participants did not receive any information on the study aims; however, they did receive economic compensation in the form of a voucher to be used for making photocopies. Of the sample, 75% were men and 23% were women (2% missing values), with a mean age of 20.18 years (SD = 3.16). Before starting the research, both groups were informed of the ethical aspects of the program and the confidentiality of the data. In addition, they provided informed consent for their participation in the study. For the purpose of anonymity, an identification code was included in the questionnaires for each participant, consisting of the initial of his/her father's name, the initial of his/her mother's name, and the initial of his/her month of birth. This code was entered when completing both pre- and postintervention questionnaires and was used to match them with the subjects. Furthermore, the study was reviewed and approved by the corresponding ethics committee, CD/12/2020.

Compassion program description

The intervention program consisted of a brief adaptation of the ABCT (Garcia-Campayo & Demarzo 2015) and comprised two five-hour sessions (see Figure 1). It was given over the course of a weekend by a psychiatrist specializing in and trained to conduct compassion interventions based on this approach. The sessions focused on increasing the participants' ability to be considerate and kind towards (i) themselves and their own experience (specifically, their experience of suffering), and (ii) others' experience of suffering. Each session consisted of a theoretical-expository presentation and introduction component lasting approximately 60 minutes, an experiential practical component through guided meditations, and a group reflective component for group discussion. This intervention involved mindfulness practices and visualizations based on self-compassion and the attachment style formed during childhood. The structure of the two sessions was as follows: (1) Session 1: Preparing compassion, self-esteem and compassion, developing my compassionate world, and relationships and compassion; and (2) Session 2: Working on ourselves, advanced compassion, and conveying compassion toward others.

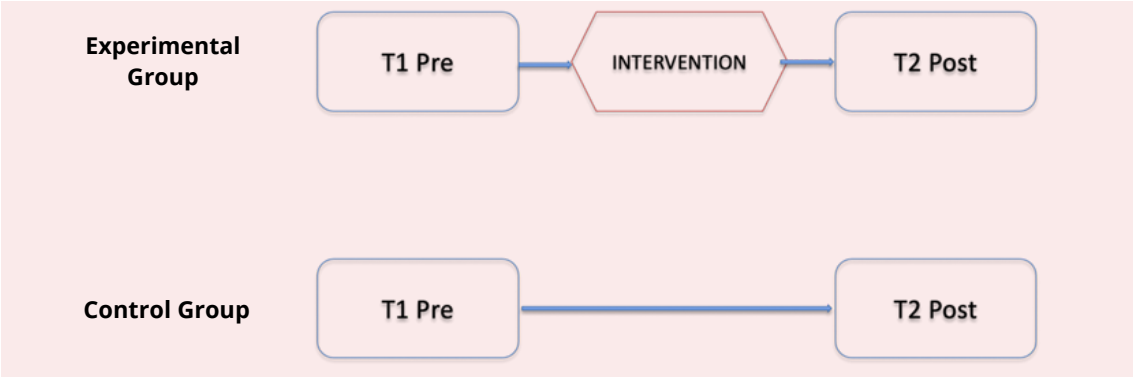

Figure 1. *Intervention design.*

Table 1. *Specific session content and structure of the intervention program.*

Session Number	Structure	Content
1	· Preparing compassion · Self-esteem and compassion · Developing my compassionate world · Relationships and compassion	· Theoretical aspects of brain evolution, happiness, and suffering. Concept of compassion/self-compassion and elimination of mistaken beliefs. Participants are instructed in mindfulness practices such as breathing, and compassionate body scan. These practices help to regulate attention and emphasize compassionate aspects within oneself. They are a core element of the program. · Mindfulness and compassion. Differences from self-esteem. How to manage and cope with fear of compassion. Practices to try to connect with affection and compassion with other beings, and to try to generate feelings of security toward oneself. Analysis of whether participants have previously developed a mental referent figure in their life to resort to in distressful situations. · Action mechanism of compassion. Importance of replacing self- criticism with self-compassion. Development of a core element of compassion such as the figure of secure attachment. Replacing the critical voice with a more compassionate and tolerant one. Importance of acceptance in life. · Parenting models during childhood. Understanding that relationships with parents generate different ways of relating to the world. Awareness of the emotional bonds developed toward parents during childhood, as well as their implications for the emotional functioning in adulthood and the capacity to receive affection from others.
2	· Working on ourselves · Advanced compassion · Transmitting compassion toward others	· Reconstruction of a secure attachment model, modifying our relationships with ourselves and with others through compassion. Practices to become aware of our own ability to give affection to others and ourselves. Reconciliation with parents (where appropriate). · Forgiveness and common barriers to compassion. Importance of forgiveness toward oneself and others. Forgiveness through meditation: (1) asking forgiveness of others, (2) forgiving oneself, (3) forgiving others for wrongs received. Values guide activation to reduce suffering. · Envy and the importance of developing an attachment figure based on oneself. How to manage difficult relationships. Trying to understand others' suffering in order to develop applied compassion in daily life. · Equanimity, a quality stemming from compassion practice. How to maintain compassion exercises throughout life. Practices to develop equanimity: we are all the same, the fallacy of categories, giving gratitude. Maintenance of compassion toward others and ourselves.

The detailed contents of both sessions are presented in Table 1. Participation in the intervention involved attending the two scheduled sessions. At the beginning of the first intervention session, the participants completed an initial questionnaire that assessed the study variables. At the end of the last session, the participants completed the final questionnaire and submitted it to the head of the research team.

Measurements

Compassion. We used the Compassion for Others scale by Amutio et al. (2018). This scale comprises 16 items that assess the degree of compassion people feel towards others on a Likert-type scale ranging between 1 *(Almost never)* and 5 *(Almost always)*. It contains four dimensions: (1) kindness (4 items; e.g., "I like to help other people who go through difficult times"); (2) common humanity (4 items; e.g., "It is important to recognize that all people have weaknesses, nobody is perfect"); (3) a dimension of nonjudging/forgiveness (4 items; e.g., "I try not to criticize the weaknesses or mistakes of others too much"); and (4) mindfulness (4 items; e.g., "I notice when people are upset, even if they don't say anything"). The scale has adequate internal reliability (Pre α = .85; Post α = .88).

Transcendence beliefs. Cloninger's Self-Transcendence Scale (1994) was used. This scale is composed of five items that assess the degree of agreement with statements about the connection people feel with what surrounds them on a Likert-type scale ranging between 1 *(Strongly disagree)* and 7 *(Strongly agree)*. An example of an item is: "I have had moments of great joy when I felt deep feelings of unity with everything that exists." The scale presents adequate internal reliability (Pre α = .79; Post α = .89).

Happiness. The Pemberton Happiness Index (PHI) by Vázquez & Hervás (2012) was used. This scale is made up of 11 items rated on a Likert-type response scale ranging between 0 *(Strongly disagree)* and 10 *(Strongly agree)* to assess: (1) general wellbeing (2 items; e.g., "I feel very satisfied with my life"), (2) eudaimonic wellbeing (6 items; e.g., "My life is full of learning and challenges that make me grow"), (3) hedonic affection or wellbeing (2 items; e.g., "I enjoy many little things every day"), and (4) social welfare (1 item; "I feel that I live in a society that allows me to fully develop"). The scale presents adequate internal reliability (Pre α = .87; Post α = .90).

Endogroup solidarity. The hierarchical model of in-group identification by Leach et al. (2008) was used. This scale consists of three items that assess subjective identification with a certain reference group (in this case, a close and very significant endogroup), rated on a Likert-type scale ranging between 1 *(Strongly disagree)* and 7 *(Strongly agree)*. An example of an item is: "I feel a bond with the people in [my group]." The scale presents adequate internal reliability (Pre α = .88; Post α = .88).

Global Identity. The Global Identity scale by Der-Karabetian & Ruiz (1997; cf. De Rivera & Carson, 2015) was used. This scale is made up of seven items that measure supranational identification with humanity as a global community on a Likert-type response scale ranging between 1 *(Strongly disagree)* and 6 *(Strongly agree)*. An example of an item is: "I feel like I am living in a global village." The scale presents adequate internal reliability (Pre α = .74; Post α = .73).

Data Analysis

First, descriptive analyses (i.e., means, standard deviations), intercorrelations, and reliability analyses (Cronbach's alpha) were calculated using the SPSS statistical software package.

Second, a one-way analysis of variance (ANOVA) was performed to assess whether the two groups (experimental and control) were sufficiently similar at baseline. Nonsignificant results of these analyses would allow the analysis of the effect of the intervention to continue, including postintervention measures for both groups (experimental and control).

Third, the effects of the compassion intervention were analyzed, taking into account the group (experimental and control) and time (pre- and postintervention). For this purpose, multivariate analyses of variance (MANOVAs) were performed with a 2x2 design (Group x Time), considering the two groups (experimental and control) and the two measures of time (pre and post) for all the variables. These analyses were carried out in order to observe differences in the means of each variable depending on the group. The effect represented by the time factor (pre- and postintervention) would show whether the brief compassion protocol was effective from a general approach; whereas the effect obtained according to the group (experimental and control) would show whether there were differences between the experimental and control groups at the level of the general mean. Finally, the group x time interaction would show whether there were differences related to the group (whether it was experimental or control) and time.

Effect size was estimated with partial eta-squared ($\eta 2$). Cohen's effect size cutoff criteria were used for descriptive purposes: 02, .13, and .26, for small, medium, and large effects, respectively (Cohen 2013).

Results

First, descriptive analyses showed that reliability analyses of all the scales met the criteria proposed by scientific research (Nunnally & Bernstein 1994) in both the pre- and postintervention measures (see Table 2). Furthermore, the correlation analyses between the preintervention variables indicate that compassion correlated positively and significantly (mean r = .44, ranging from .27 to .62) with the study variables (i.e., transcendence beliefs, endogroup solidarity, and global identity), except for the correlation with happiness, which was not significant (see Table 2). In addition, the correlation analyses between the postintervention variables indicated that compassion correlated positively and significantly (mean r = .49) with the study variables (see Table 3).

Table 2. *Pre-Intervention Means, Standard Deviations, Internal Consistency Reliability Coefficients, and Correlations (n=61).*

Variables	Mean	SD	α	1	2	3	4
1. Compassion	4.18	.43	.85	-	-	-	-
2. Transcendence Beliefs	4.33	1.26	.79	.42***	-	-	-
3. Happiness	7.43	1.30	.87	.20	.42***	-	-
7. Endo-group Solidarity	5.85	1.01	.88	.42***	.07	.27*	-
8. Global Identity	4.23	.81	.74	.50***	.62***	.21	.14

Compassion (1=Minimum;5=Maximum), Transcendence Beliefs (1=Minimum;7=Maximum), Happiness (0=Minimum;10=Maximum), Endo-group Solidarity (1=Minimum;7=Maximum), Global Identity (1=Minimum;6=Maximum)
*, *p*<.05; ***, *p*<.001.

Table 3. *Post Intervention Means, Standard Deviations, Internal Consistency Reliability Coefficients, and Correlations (n=61).*

Variables	Mean	SD	α	1	2	3	4
(1) Compassion	4.31	.43	.88	-	-	-	-
(2) Transcendence Beliefs	4.58	1.49	.89	.58***	-	-	-
(3) Happiness	7.62	1.37	.90	.41***	.42***	-	-
(4) Endo-group Solidarity	5.81	.98	.88	.45***	.43***	.61***	-
(5) Global Identity	4.42	.80	.73	.52***	.63***	.40***	.42***

Compassion (1=Minimum;5=Maximum), Transcendence Beliefs (1=Minimum;7=Maximum), Happiness (0=Minimum;10=Maximum), Endo-group Solidarity (1=Minimum;7=Maximum), Global Identity (1=Minimum;6=Maximum), * **, *p*<.001.

The results of the baseline ANOVA test showed no significant differences between the groups on compassion [F(1, 58) = 0.774, p =.383], transcendence beliefs [F(1, 58) = 2.995, p =.089], endogroup solidarity [F(1, 58) = 2.158, p =.147], or global identity [F(1, 58) = 1.645, p =.205]. Results indicated significant differences between the intervention and control group on happiness [F (1, 58) = 12.360, p <.001], in favor of the intervention group, thus impeding the comparison of happiness between the groups. Consequently, happiness was not included in the following analyses.

The mean scores and standard deviations per group and time, as well as per group x time, are shown in Table 4, and the summary results of the baseline one-way ANOVAs between groups are found in Table 5.

Table 4. *Pre - Post Intervention and Control Groups Scores- Mean (SD)*

	Intervention (n=17)		Control (n=43)	
	Pre	Post	Pre	Post
(1) Compassion	4.2 (0.5)	4.6 (0.2)	4.1(0.3)	4.1 (0.4)
(2) Transcendence Beliefs	4.7 (1.4)	5.6 (1.2)	4.1 (1.1)	4.1 (1.3)
(3) Happiness	8.3 (1.0)	8.9 (0.6)	7.1 (1.2)	7.2 (1.2)
(4) Endo-group Solidarity	6.1 (0.9)	6.4 (0.4)	5.7 (1.0)	5.5 (1.0)
(5) Global Identity	4.4 (0.8)	4.8 (0.7)	4.1 (0.8)	4.2 (0.7)

Compassion (1=Minimum;5=Maximum), Transcendence Beliefs (1=Minimum;7=Maximum), Happiness (0=Minimum;10=Maximum), Endo-group Solidarity (1=Minimum;7=Maximum), Global Identity (1=Minimum;6=Maximum)

Table 5. *Pre-Intervention one-way ANOVAs with group as comparison factor.*

	Time			
	df_{effect}	df_{error}	F	*P*
(1) Compassion	1	58	.774	.383
(2) Transcendence Beliefs	1	58	2.995	.089
(3) Happiness	1	58	12.360	.001
(4) Endo-group Solidarity	1	58	2.158	.147
(5) Global Identity	1	58	1.645	.205

Compassion (1=Minimum;5=Maximum), Transcendence Beliefs (1=Minimum;7=Maximum), Happiness (0=Minimum;10=Maximum), Endo-group Solidarity (1=Minimum;7=Maximum), Global Identity (1=Minimum;6=Maximum)

The results of the MANOVAs indicated a statistically significant and large effect size for the differences between groups, [$F(5, 54) = 5.091$, $p < .001$, $\eta 2=.320$], a statistically significant and large effect size for time, [$F(5, 54) = 4.807$, $p < .001$, $\eta 2=.308$], and a statistically significant and large effect size for the interaction term time*group [$F(5, 54) = 3.451$, $p < .01$, $\eta 2=.242$]. The results suggest significant changes in groups across time (pre and post), across groups (experimental and control), and across the time*group interaction. Taking into account the time* group interaction, the follow-up ANOVAs for each of the variables indicated statistically significant differences between groups on compassion [$F(1, 58) = 10.800$, $p < .01$, $\eta 2=.157$], transcendence beliefs [$F(1, 58) = 9.089$, $p < .01$, $\eta 2=.145$], and endogroup solidarity [$F(1, 58) = 4.243$, $p < .05$, $\eta 2=.068$], suggesting that the intervention group increased compassion, transcendence beliefs, and endogroup solidarity from T1 to T2, unlike the control group. Results of the time* group interaction ANOVAs were nonsignificant for global identity [$F (1, 58) = 3.521$, $p = .066$, $\eta 2=.057$]. Although previous analyses of happiness had indicated significant differences between the intervention and control groups before the intervention (in favor of

the intervention group), further analyses revealed that, considering the time* group interaction, the intervention group had also increased their happiness more than the control group. A summary of the follow-up ANOVA results is shown in Table 6 and Figure 2.

Table 6: *Follow-up ANOVAs for the effects of Time, Group, and Time * Group interaction on Outcome Variables*

	Time					Group					Time*Group				
	df_{effect}	df_{error}	F	*P*	$\eta 2$	df_{effect}	df_{error}	F	*P*	$\eta 2$	df_{effect}	df_{error}	F	*P*	$\eta 2$
Compassion	1	58	13.077	.001	.184	1	58	6.383	.014	.099	1	58	10.800	.002	.157
Transcendence Beliefs	1	58	10.755	.002	.156	1	58	8.867	.004	.133	1	58	9.089	.003	.145
Happiness	1	58	6.475	.014	.100	1	58	22.548	.000	.280	1	58	5.261	.021	.088
Endo-group Solidarity	1	58	0.297	.588	.005	1	58	7.743	.007	.118	1	58	4.243	.044	.068
Global Identity	1	58	7.115	.010	.109	1	58	6.095	.017	.095	1	58	3.521	.066	.057

Compassion (1=Minimum;5=Maximum), Transcendence Beliefs (1=Minimum;7=Maximum), Happiness (0=Minimum;10=Maximum), Endo-group Solidarity (1=Minimum;7=Maximum), Global Identity (1=Minimum;6=Maximum)

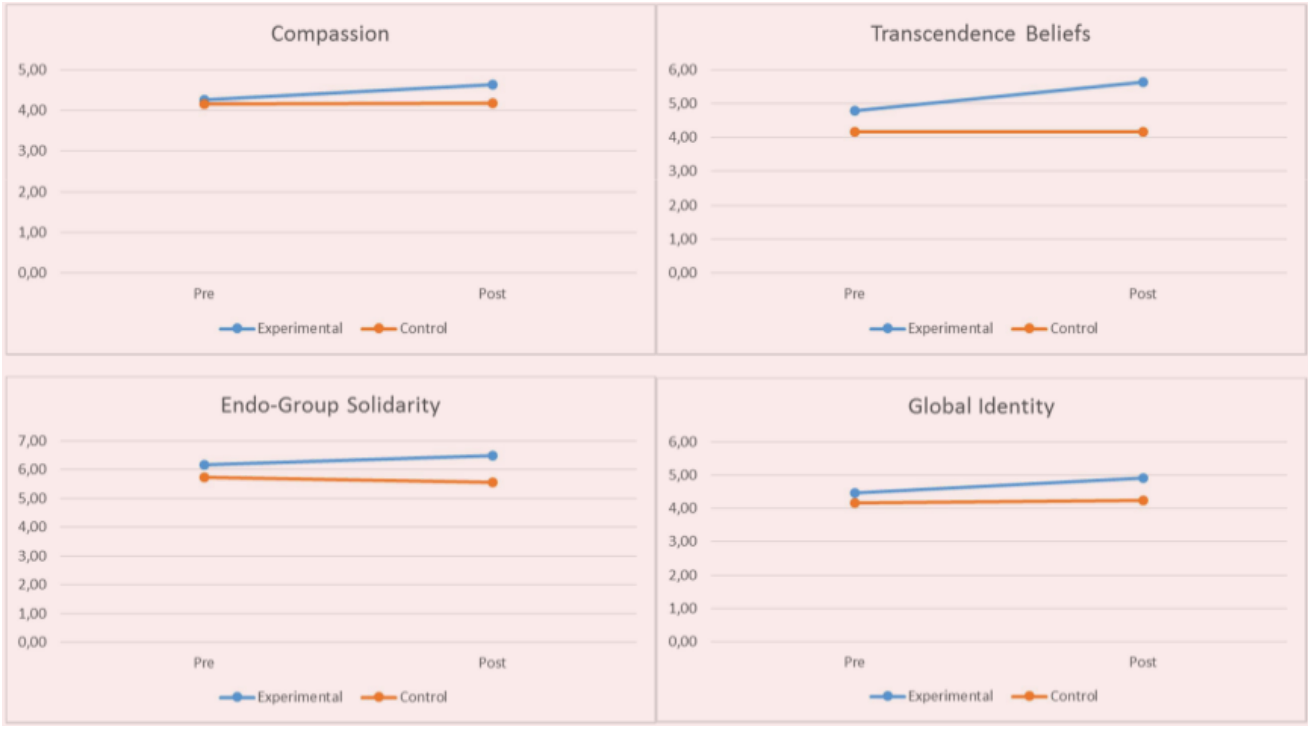

Figure 2. *Line plots showing the impact of the time factor (pre, post) on dependent variables between groups.*

Discussion

The aim of the present study was to experimentally test the validation and effects on healthy people of the application of a compassion intervention program, consisting of the ABCT (García-Campayo & Demarzo, 2015) in a brief format (two five-hour sessions), with regard to compassion and other positive constructs, such as transcendence beliefs, subjective well-being or happiness, endogroup solidarity, and global identity. Thus, we expected that, in comparison with the control group the participants in the ABCT brief format group would show a significant increase in compassion levels (*Hypothesis 1*) and other positive constructs described previously (*Hypothesis 2*).

In a sample of 61 subjects divided into an experimental group that received the brief compassion intervention (17 people recruited from a Spanish public university including graduate students completing a master's degree and academic personnel) and a control group (44 undergraduate students from a different university) that received no intervention, the results showed the effectiveness and the validation of the brief ABCT. Taking the time*group interaction into account, the results showed that the brief ABCT was effective in increasing levels of compassion and the other related constructs. In this regard, the experimental subjects, compared with the control group, showed significant differences in these constructs over time, increasing their levels of compassion, transcendence beliefs, and endogroup solidarity. The happiness variable could not be considered in the subsequent MANOVA analyses because the results of the ANOVAs performed on both groups (experimental and control) before starting the intervention showed significant differences in the PRE scores between the two groups (experimental and control). However, the time * group analysis revealed higher levels of happiness in the group that received the intervention. Finally, and contrary to expectations, there were no significant differences, taking into account the time * group interaction, in global identity, possibly due to the type of sample used in the present study or its size. It seems that, regardless of the intervention, the subjects showed similar scores in the ability to identify with people, and an intervention was not necessary in order for these levels to increase. Based on these results, *Hypothesis 1* was completely fulfilled, whereas *Hypothesis 2* was partially fulfilled.

The results obtained in the study are consistent with those obtained in other previous compassion-related studies. For example, ABCT is also valid for a healthy population and is a tool to promote people's wellbeing (García-Campayo et al. 2017). Compassion has been positively related to other positive constructs such as social connectivity (Neff et al. 2008), positive affect, empathy, and interpersonal relationships (Shonin et al., 2014), self-pity and prosocial behaviors (Breines & Chen 2013; Kemeny et al. 2012), altruistic behaviors (Weng et al. 2013), subjective happiness (Booker & Dusnmore 2018), and psychological functioning and subjective well-being (Kirby 2017). Finally, compassion has been related to other key variables, such as emotions, positive self-transcendence, the values of universality, transcendence beliefs, endogroup solidarity, identity fusion, global humanitarian identity, and subjective wellbeing (Amutio et al. 2018).

In addition to these results, the novelty of the present study is that it revealed the validity and effectiveness of the brief ABCT (two five-hour sessions) for fostering compassion and other related positive constructs. These results, along with other brief interventions related to other positive constructs such as mindfulness, reveal the need to continue to investigate the application of these brief protocols to the reality of the organizational context (see Coo & Salanova 2017; Salanova et al. 2013). Although the efficacy of shorter versions of traditional CBIs has not yet been demonstrated in the long term, the findings of this study suggest that it is possible to use these abbreviated interventions without diminishing efficacy and efficiency. They are a very useful and time-efficient way of operatively introducing compassion as a healthy organizational practice (Salanova et al. 2013) that has the potential to promote healthy organizational results. In addition, the importance of the attachment component in the intervention should be highlighted. It enhances the effectiveness of training in attachment style. The results evidence that the secure attachment style (as opposed to the insecure one), correlates with greater wellbeing, acquisition of social skills, and the development of social identity (García Campayo, 2020).

Limitations and future research

The present study has four important limitations. The first limitation is the use of self-report measures. Thus, it would be interesting to use measures from different stakeholders (users, colleagues, supervisor). Another limitation is the lack of medium- and long-term follow-up measures that would allow us to ascertain the effectiveness of the brief compassionate intervention over time. Finally, the fourth limitation has to do with the fact that the study design is not randomized and a passive control group has been included. The disadvantages of assigning nonrandomized experimental and control subjects are the following: (1) the results obtained from the intervention may depend to a greater extent on the application that the researcher makes of the intervention; (2) it increases the likelihood that the initial characteristics of the two groups before the intervention will not be similar and that baseline scores will show inconsistencies, (3) which may make the results less reliable, (4) it makes it difficult to demonstrate that the intervention performed out is solely responsible for the effects obtained between the control and experimental group (Zurita-Cruz et al. 2018). Nevertheless, it is sometimes difficult to apply positive psychological interventions with randomized designs since the characteristics and the nature of companies' settings (Randall, Griffiths & Cox 2005). In those situations, a quasi-experiment is required. According to Cook and Campbell (1979) and Shadish et al. (2002) while randomization is not used in quasi-experiment designs, statistical techniques are used to explain possible threats to causal inferences, such as initial differences between treatment environments; for example, differences in means of study variables between groups. Specifically in our study, the similarities between the scores of the two groups was evaluated by ANOVA, and the variable in which significant differences could be seen before the intervention between the two groups was discarded from the subsequent analyzes (this was the case of the happiness variable).

Future research should use high-level randomized controlled trials with larger samples and active control group intervention programs. Following this approach would be a necessary step

in validating the effectiveness of short versions of compassion interventions. This would allow us to more confidently validate short compassion interventions as strategies to allow employees to become happier and more productive.

Another very important aspect, as a further step in this study, would be to include other more objective outcome variables (e.g., performance, quality of service) and use different key agents (employees, supervisors, users/clients), taking into account the gender and age perspectives in order to verify that the intervention has the same effects on men and women, regardless of age. Finally, the use of long-term follow-up measures for both groups (experimental and control) would be the key to studying adherence to the brief intervention and the maintenance of its effects.

Final note

This compassionate intervention, although brief, has proven effective for improving compassion and other positive variables that enable us to make sense of our lives. We must take our ability to pay attention to suffering seriously, put ourselves in the place of the person who is suffering, and work together, through concrete actions, to make this suffering more bearable.

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References

Amutio, A., Pizarro, J.J., Basabe, N., Telletxea, S., & Harizmendi, M. (2018). Propiedades psicométricas de la Escala de Compasión hacia los Demás. *PsyCap*, *4*, 24-37. https://tinyurl.com/2p8nwaf9

Bartholomew, K., & Horowitz, L. M. (1991). Attachement styles among young adults a test of four-category model. *Journal of Personality and Social Psychology*, *61*(2), 226-244. https://doi.org/gjm

Booker, J.A., & Dusnmore, J.C. (2018). Testing Direct and Indirect Ties of Self-Compassion with Subjective Well-Being. *Journal of Happiness Studies*, *20*, 1563-1585. https://doi.org/gf2bxw

Breines, J.G., & Chen, S. (2013). Activating the inner caregiver. The role of support-giving schemas in increasing state self-compassion. *Journal of Experimental Social Psychologist*, *49*(1), 58-64. https://doi.org/10.1016/j.jesp.2012.07.015

Chu, L.C. (2016). Mediating positive moods: the impact of experiencing compassion at work. *Journal of Nursing Management*, *24*(1), 59-69. https://doi.org/10.1111/jonm.12272

Cloninger, C.R. (1994). Temperament and personality. *Current opinion in neurobiology*, *4*(2), 226-273. https://doi.org/10.1016/0959-4388(94)90083-3

Cohen, J. (1988). *Statistical Power Analysis for the behavioral sciences* (2nd ed.). Routledge. https://doi.org/10.4324/9780203771587

Coo, C., & Salanova, M. (2017). Mindfulness can make you Happy-and-Productive: A Mindfulness Controlled Trial and Its Effects on Happiness, Work Engagement and Performance. *Journal of Happiness Studies*, *19*, 1691-1711. https://doi.org/hdb3

Cook, T. D., & Campbell, D.T., (1979). *Quasi-experimentation: Design and Analyses Issues for Field Settings*. Houghton Mifflin.

Costa, J., & Pinto-Gouveia, J. (2011). Acceptance of pain, self-compassion and psychopathology: using the chronic pain acceptance questionnaire to identify patients´ subgroups. *Clinical Psychology Psychotherapy*, *18*(4), 292-302. https://doi.org/10.1002/cpp.718

Desbordes, G., Negi, L.T., Pace, T.W., Wallace, B.A., Raison, C.L., & Schwartz, E.L., (2012). Effects of mindful-attention and compassion meditation training on amygdala response to emotional stimuli in an ordinary, non-meditative state. *Frontiers in Human Neuroscience*, *6*, 292. https://doi.org/gg9kk8

Frost, P. J. (1999). Why compassion counts! *Journal of Management Inquiry*, *8*(2), 127-133. https://doi.org/10.1177/105649269982004

Garcia-Campayo, J., & Demarzo, M. (2015). *Mindfulness y compassion. La nueva revolución*. Siglantana.

Garcia-Campayo, J., Demarzo, M., & Modrego, M. (2017). *Bienestar emocional y mindfulness en la educación*. Alianza.

Garcia-Campayo, J., Navarro-Gil M., & Demarzo, M. (2016). Attachment-based com-passion therapy. *Mindfulness Compassion*, *1*(2), 68-74. https://doi.org/hdb6

Garcia-Campayo, J. (2020). *La práctica de la compasión*. Singlantana.

Gilbert, P. (2015). *Terapia centrada en la compassion*. Desclée de Brouwer.

Gilbert, P. (2020). Compassion: From Its Evolution to a Psychotherapy. *Frontiers Psychology*, *11*. https://doi.org/10.3389/fpsyg.2020.586161

Held, P., & Owens, G.P. (2015). Effects of self-compassion work-book training on trauma-related guilt in a sample of homeless veterans: a pilot study. *Journal of Clinical Psychology*, *71*(6), 513-526. https://doi.org/10.1002/jclp.22170

Hoffmann, S.G., Grossman, P., & Hinton, D.E. (2011). Loving-Kindness and compassion meditation: potential for psychological interventions. *Clinical Psychology Review*, *31*(7), 1126-32. https://doi.org/10.1016/j.cpr.2011.07.003

Kanov, J., Maitlis, S., Worline, M.C., Dutton, J.E., Frost, P.J., & Lilius, J.M. (2004). Compassion in organizational life. *American Behavioral Scientist*, *47*(6), 808-827. https://doi.org/dqrz2r

Kelly, A., & Borairi, S. (2014). Are improvements in shame and self-compassion early in eating disorders treatment associated with better patient outcomes? *Journal Eating Disorders*, *47*(1), 54-64. https://doi.org/10.1002/eat.22196

Kemeny, M. E., Foltz, C., Cavanagh, J. F., Cullen, M., Giese-Davis, J., Jennings, P., Rosenberg, E. L., Gillath, O., Shaver, P. R., Wallace, B. A., & Ekman, P. (2012). Contemplative/emotion training reduces negative emotional behavior and promotes prosocial responses. *Emotion*, *12*(2), 338-350. https://doi.org/10.1037/a0026118

Kirby, J.N. (2017). Compassion interventions: The programmes, the evidence, and implications for research and practice. *The British Psychological Society Psychology and Psychotherapy: Theory, Research and Practice*, *90*(3), 432-455. https://doi.org/gj7q62

Kirby, J.N., Tellegen, C.N, & Steindl, S.L. (2017). A Meta-Analysis of Compassion-Based Interventions: Current State of Knowledge and Future Directions. *Behavior Therapy*, *48*(6), 778-792. https://doi.org/gch9tf

Leach, C.W., Wan Zomeren, M., Zebel, S., Vliek, M., Pennekamp, S.F., Doosje, B., Ouwerkerk, J.P., & Spears, R. (2008). Group-level self-definition and self-investment: a hierarchical (multicomponent) model of in-group identification. *Journal of Personality and Social Psychology*, *95*(1), 144-165. https://doi.org/fmq589

Leaviss, J.& Uttley, L. (2015). Psychotherapeutic benefits of compassion-focused therapy: An early systematic review. *Psychological Medicine*, *45*(05), 927-945. https://doi.org/f65rj5

Leiberg, S., Klimecki, O., & Singer, T. (2011). Short-Term Compassion Training Increases Prosocial Behavior in a Newly Developed Prosocial Game. Plos one. 6 (3). https://doi.org/b9snvr

Lilius, J.M., Kanov, M.C., Dutton, J.E., Worline, M.C., & Maitlis, S. (2012). Compassion revealed: What we know about compassion at work and where We need to know more. In K. Cameron and G. Spreitzer (eds.), *Oxford Handbook of positive Organizational Scholarship* (pp. 273-287). Oxford University Press. https://doi.org/hdb8

Lucre, K.M., & Corten, N. (2013). An exploration of group compassion-focused therapy for personality disorder. *Psychology and Psychotherapy*, *86*(4), 387-400. https://doi.org/f5g7g7

Montero-Marín, J., Andrés-Rodriguez, L., Tops, M., Luciano, J.V., Navarro-Gil, M., Feliu-Soler, A., López del Hoyo, Y., & Garcia-Campayo, J. (2019). Effects of 'attachment-based compassion therapy' (ABCT) on brain-derived neurotrophic factor and low-grade inflammation among fibromyalgia patients: A randomized controlled trial. *Scientific Reports*, *9*, 15639. https://doi.org/10.1038/s41598-019-52260-z

Montero-Marín, J., Navarro-Gil, M., Puebla-Guedea, M., Luciano, J. V., Van Gordon, W., Shonin, E., & Garcia-Campayo, J. (2018). Efficacy of 'attachment-based compassion therapy' (ABCT) in the treatment of fibromialgia: a randomized controlled trial. *Frontiers in Psychiatry*, *8*, 307. https://doi.org/10.3389/fpsyt.2017.00307

Navarro-Gil, M., López del Hoyo, Y., Modrego-Alarcón, M., Montero-Marín, J., Van Gordon, W., Shonin, E., & Garcia Campayo, J. (2018). Effects of Attachment Based Compassion therapy (ABCT) on Self-compassion and Attachment Style in Healthy People. *Mindfulness*, *11*, 51-62. https://doi.org/10.1007/s12671-018- 0896-1

Neff, K.D. (2003). Self-compassion: An alternative conceptualization of a healthy attitude toward oneself. *Self and identity*, *2*(2), 85-101. https://doi.org/dsthm2

Neff, K.D., Pisitsungkagarn, K., & Hseih, Y. (2008). Self-compassion and self-construal in the United States, Thailand and Taiwan. *Journal of Cross-Cultural Psychology*, *39*(3), 267-285. https://doi.org/b2dptg

Neff, K. (2012). *Sé amable contigo mismo. El arte de la compasión hacia uno mismo*. Oniro.

Nunnally, J. C., & Bernstein, I. R. (1994). *Psychometric Theory*. McGraw-Hill.

Pommier, E.A. (2011). The compassion scale. *Dissertation Abstracts International Section A: Humanities and Social Sciences*, *72*(4), 1174.

Randall, R., Griffiths, A. & Cox, T. (2005). Evaluating organizational stress-management interventions using adapted study designs. *European Journal of Work and Organizational Psychology*, *14*(1), 23-41. https://doi.org/10.1080/13594320444000209

De Rivera, J. & Carson, H.A. (2015) Cultivating a Global Identity. *Journal of Social and Political Psychology*, *3*(2), 310-330. https://doi.org/10.5964/jspp.v3i2.507

Salanova, M., Llorens, S., Acosta, H., & Torrente, P. (2013). Positive interventions in Positive Organizations. *Terapia Psicológica*, *31*(1), 101-113. https://doi.org/f4qn3r

Shadish, W. R., Cook, T. D., & Campbell, D. T. (2002). *Experimental and Quasi-Experimental Designs for Generalized Causal Inference*. Houghton, Mifflin and Company.

Shonin, E., Van Gordon, W., Compare, A., Zangeneh, M., & Griffiths, M. (2014). Buddhist-derived loving-kindness and compassion meditation for the treatment of psychopathology: a systematic review. *Mindfulness*, *6*(5), 1161-118. https://doi.org/10.1007/s12671-014-0368-1

Strauss, C., Lever Taylor, B., Gu, J., Kuyken, W., Baer R, Jones F.& Cavanagh, K. (2016). What is compassion and how can we measure it? A review of definitions and measures. *Clinical Psychology Review*, *47*,15-27. https://doi.org/dghv

Vazquez, C. & Hervás, G. (2012). Addressing current challenges in cross-cultural measurement of well-being: The Pemberton Happiness Index. In A. Delle Fave, & H.H. Koop (Eds.), *Well-Being and Cultures: perspectives from Positive Psychology* (pp. 31-49). Springer. https://doi.org/hdch

Weng, H.Y., Fox, A.S., Shackman, A.J., Stodola, D.E., Caldwell, J.Z.K., Olson, M.C., Rogers, G. M. & Davidson, R.J. (2013). Compassion training alters altruism and neural responses to suffering. *Psychological Science*, *24*(7), 1171-1180. https://doi.org/f44knf

Zurita-Cruz, J.N., Márquez-González, & Miranda-Novales, & Villasís-Keever, M.A. (2018). Estudios experimentales: diseños de investigación para la evaluación de intervenciones en la clínica. *Revista Alergia México*, *65*(2), 178-186. https://doi.org/hdcm

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