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Original Article

The effect of compassion-focused therapy on self-compassion and self-criticism in adolescents with body-image disorder

Aqdas Khosravi ¹, Fatemeh Abyar ², Yassaman Merci ³, Shadi Khodakhah Darban ⁴, Fatemeh Vandshekari ^{5*} and Zahra Ebadi ⁶

- 1. M.A., Department of Psychology, Faculty of Psychology and Educational Sciences, Yazd University, Yazd, Iran.
- 2. M.A., Department of Educational Sciences and Psychology, Islamic Azad University Khorasgan (Isfahan) Branch.
- 3. M.A., Department of Clinical Psychology, University of Kharazmi, Tehran, Iran.
- 4. M.A., Department of Psychology, Faculty of Psychology, Karaj Branch, Islamic Azad University, Karaj, Iran.
- 5. M.A., Department of Psychology, Faculty of Psychology, Marvdasht Branch, Islamic Azad University, Marvdasht, Iran.
- 6. Instructor, Department of Psychology, Faculty of Psychology, Payame Noor University, Tehran, Iran.

Abstract

The current study aimed to determine the effect of compassion-focused therapy on self-compassion and self-criticism in adolescents with body-image disorder. This quasi-experimental study was a pretest-posttest with the control group consisting of 30 adolescents with a body-image disorder based on a purposeful sampling selected and randomly allocated to experimental (n=15) and control (n=15) groups. The experimental group was provided with 10 one-week CFT sessions, while the control group did not receive any treatment. At the start of the study, after 10 weeks, all participants were tested using the Self-Compassion Scale and the Levels of Self-criticism (LOSC) Scale. In addition to descriptive statistics, MANOVA was used to analyze the results and all analyses were carried out using SPSS-23 software. Based on the MANOVA, CFT was significantly more effective than non-treatment in reducing self-criticism (p < 0.05). Moreover, CFT was able to increase the self-compassion levels among individuals with the body-image disorder, significantly (p < 0.05). Consequently, we can conclude that the practice of compassion-focused therapy seems to be a promising area of intervention, not only for decreasing self-criticism but also for enhancing self-compassion among adolescents with body-image disorder.

Keywords

Compassion-focused therapy Self-compassion Self-criticism Adolescent Body-image disorder

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Introduction

Body Image (BI) encompasses all people's positive and negative perceptions, beliefs, thoughts, behaviors, and attitudes about their bodies and appearance. There is evidence that the disruption of the biological clock (BID) is one of the key factors responsible for the development and maintenance of eating disorders (ED) generally and anorexia nervosa and bulimia nervosa, specifically (Glashouwer et al., 2019; Sattler, Eickmeyer & Eisenkolb, 2020; Degortes, Santonastaso, & Favaro, 2018). Also, BID is associated with relapse and poor prognoses in these disorders as well as their increasing prevalence, particularly among youth and young adults (Mitchison et al., 2020). Furthermore, even in the absence of an ED, BID is a risk factor that negatively impacts the quality of life of the individual (Burychka, Miragall, &

Baños, 2021).

The level of concern with the appearance and body image of adolescent boys and girls has been identified as a serious problem by both researchers and health professionals. Based on the results of the 2017 survey, which surveyed over 24,000 young people, "body image concerns" were rated as important by 31.3 percent of respondents, an increase from 20.4% in 2012. In the literature, there is a substantial amount of empirical evidence that links body dissatisfaction with a broad range of detrimental outcomes such as poor psychological well-being (e.g., low self-esteem, depression), low physical activity, and disordered eating (Ntoumanis et al., 2020).

It is becoming increasingly apparent that self-compassion is an important resilience factor influencing positive mental health (Zhang et al., 2019). In other words, self-compassion is not merely the absence of self-judgment,

Corresponding author: M.A., Department of Psychology, Faculty of Psychology, Marvdasht Branch, Islamic Azad University, Marvdasht, Iran.

E-mail: dr.hobbit@yahoo.com

although self-judgment overlaps with self-criticism. As a result, self-compassion provides several avenues through which self-criticism can be reduced Bluth, Mullarkey & Lathren, 2018). A previous study found that self-compassion partially explains positive and negative affect improvement following negative mood induction. In contrast, participants in the self-compassion condition consumed significantly fewer calories, rated their food as less pleasurable, and reported having less desire to continue eating (Serpell, Amey, & Kamboj, 2020).

In other words, self-criticism refers to the process of evaluating oneself negatively. A high level of stress is associated with psychopathology and poorer therapeutic outcomes (Wakelin, Perman, & Simonds, 2021). Self-criticism characterized by a 'hated-self' form focuses on aggressive behavior, self-hatred, and the desire to eliminate perceived undesirable aspects of oneself through self-persecution. Inadequate self-perception draws attention to inadequacies, areas to improve, and failures, with the goal of self-correcting. In support of the belief that self-criticism has distinct functions, neural research has found that the inadequate-self form is associated with reassuring processes in the brain, in contrast to the hated-self form (Kim, Henderson, Best, Cunnington, & Kirby, 2020).

Cross-sectional findings revealed that self-criticism and self-compassion had inverse effects on depressive symptoms, whereas self-compassion inversely correlated with depressive symptoms. In a bootstrapping study, selfcompassion mediated the link between self-criticism and depressive symptoms, suggesting that self-compassion may ameliorate the effects of self-criticism on depressive symptoms (Kim, et al., 2020). The findings of a recent study suggest that interventions that focus on enhancing self-compassion may be beneficial for low-income African Americans. Additionally, these findings show self-compassion to be a positive trait that has the potential to help people improve their quality of life and recommend that self-compassion-focused interventions are consistent with a positive psychology framework (Zhang et al., 2019). Many studies have investigated compassion-focused therapy (CFT) and found that it has positive effects on well-being and distress on a wide spectrum of outcomes. Compassion-based exercises can help to change a person's level of self-compassion and self-critical judgment (Koroniova, Halamová, Taňkošová, 2020).

There are two distinct relationships in psychological distress, one with the self, which takes the form of self-criticism, and one with others, which takes the form of distance and isolation. Long-standing problems can contribute to a wide range of psychological disorders, which can be challenging to treat. Hence, in the absence of a study addressing self-compassion and self-criticism among adolescents with body image disorders. This study examined how compassion-focused therapy affects self-compassion and self-criticism in adolescents with body image disorders.

Method

Participants

Using a pre-test and post-test design with a control group, the research design was indeed a quasiexperimental study. Thirty adolescents with body image disorders who attended Shiraz's psychological clinics (Avave Fereshteh, Zehne Ziba) from October 2020 to December 2020 were selected according to a purposeful sampling method and randomly assigned experimental (n=15) and control (n=15) groups. As part of the study, 70 people initially agreed to participate, and after two weeks, they were interviewed to obtain explanations about the study. At this stage, 36 participants were removed from the study. Additionally, four participants were excluded based on exclusion criteria. Thus, the estimated sample size for each of the groups was 15 individuals, while in studies similar to the one conducted in Iran, the sample size was estimated to be between 15 and 20 individuals per group 14. Inclusion criteria were females and complete consent to engage in a project. Exclusion criteria were serious medical conditions, psychotic symptoms, addictions.

The pretest was administered to both groups before the intervention. Experimental and control completed questionnaires and performed selfcompassion and self-criticism The multidimensional body-self relations questionnaire of the participants was first evaluated to determine if they met the inclusion criteria. Compassionate Intervention Training was provided for ten weekly 90-minute sessions to participants in the study group. The control group underwent psychological therapies as before. Based on published guides (Gilbert, 2009) and developed following CFT training, the authors developed the CFT group intervention. Table 1 outlines the group's content. In the Compassionate Intervention Training, two of the authors delivered weekly 90-minute sessions for 10 weeks to the teams of clinical psychologists and trainee clinical psychologists. Following the intervention, a post-test was conducted on all three variables immediately after the intervention. The self-compassion and self-criticism scales have been administered to all group members once again, and the scores have been compared with previous scores. A multivariate covariance analysis was used to investigate the effectiveness of compassion-based therapy on selfcompassion and self-criticism variables. The SPSS-23 program was used for all analyses.

Instrument

The multidimensional Body-Self Relations Questionnaire (MBSRQ):

was developed by Cash et al. in 1986 (Cash, Morrow, Hrabosky, & Perry, 2004). A total of 46 items are used to evaluate body image, including Appearance Evaluation (AE), Appearance Orientation (AO), Fitness

Evaluation (FE), Fitness Orientation (FO), Self-Classified Weight, (SW), and Body Areas Satisfaction Scale (BASS). It is a 5-point Likert scale that ranges from one (strongly disagree) to five (strongly agree). It includes (1) AE, which evaluates a person's appearance based on their physical attractiveness, satisfaction, and dissatisfaction with their appearance. The scale consists of seven items. A score of 35 is the highest: a score of seven is the lowest. 2) AO evaluates the importance of body image and describes one's behavior when it comes to maintaining the representation of appearance. It contains 12 items. The highest score is 60 and the lowest score is 12. FE evaluates personal judgment of overall fitness. It consists of three items. Its highest score is 15 and its lowest score is 3. 4) FO evaluates the personal attention to physical fitness associated with athletic professions; it includes 13 items. A 65 is the highest score, and a 13 is the lowest score. 5) SW measures obesity anxiety and observes personal concerns about obesity and diet. It consists of two items with the highest score of 10 and the lowest score of 2. Finally, BASS evaluates personal attributes of the body such as facial features, muscles, etc. A total of 9 items are evaluated. The highest score is 45 and the lowest is 9. These subcategories were assessed using the research conducted by Annis et al. 17 along with the reliability indexes that were respectively: AE of r=0.92, AO of r=0.85, FE of r=0.80, FO of r=0.91, SW of r=0.72 and BASS of r=0.84.

The Self-Compassion Scale:

There are 26 items on this self-report scale that measure six variables (self-kindness/self-judgment, common humanity/perceived isolation, mindfulness/overidentification). In these subscales, self-compassion is measured through a single latent variable. This test has high internal reliability (α =0.90) and test-retest consistency (0.93). The six dimensions are selfkindness, common humanity, self-judgment, isolation, mindfulness, and over-identification (Neff & Vonk, 2009). The six dimensions refer to conceptually different strategies and a range of individual responses to struggle situations. Conceptually, the six elements of self-compassion are distinct but work together as a system in which each dimension interacts with the others. It is important to distinguish between selfkindness and self-judgment based on personal differences in emotional responses to suffering. Common humanity versus isolation refers to a range of individual cognitive understandings of difficulties and disadvantages. Over-identification versus mindfulness refers to the practice of paying attention to painful feelings and thoughts in a mindfully balanced manner, rather than repeatedly attending to them in a biased manner (Neff & Vonk, 2009). Self-compassion theory suggests that you embrace your shortcomings, fears, and disappointments as integral parts of your humanity so that you can be more forgiving and compassionate to yourself and others. Among the findings of this study, Cronbach's alpha was 0.88; McDonald's omega coefficient was 0.90; composite reliability was 0.87, and test-retest reliability was adequate after four weeks (0.60). Using Cronbach's alpha of .70, the Self-Compassion Scale was found to have an acceptable internal consistency. Test-retest reliability of 0.89 was also found for the Self-Compassion Scale (Momeni, Shahidi, Mootabi, & Heydari, 2014).

The Levels of Self-criticism (LOSC) Scale:

This scale was created by Lewis (Lewis, 2008). It calculates two types of self-criticism: internalized selfcriticism and relative self-criticism. Self-criticism is defined as comparing oneself negatively to others. Selfcritical individuals seem to base their self-esteem on how they are perceived by others and may think that other people are superior, critical, or aggressive. In addition to comparing interpersonal animosity, selfcriticism includes comparing interpersonal animosity (Thompson & Zuroff, 2004). The internalized selfcriticism of one's behavior is defined as a negative perception of oneself. The LOSC Scale contains 22 elements, which are scored from 0 to 6, with each element receiving a different point value. There are reverse ratings for items 6, 8, 11, 12, 16, 20, and 21. In the internalized subscale for self-criticism, there are items 1, 3, 5, 7, 9, 11, 13, 15, 17, and 19, and in the comparative subscale, there are items 2, 4, 6, 8, 10, 12, 14, 16, 18, 20, 21, and 22. Items on the LOSC scale are rated using a scale of 1 (strongly disagree) to 7 (strongly agree). A higher score indicates that a person has been subjected to more self-criticism. A rating between 22 and 44 indicates low levels of self-criticism, while a rating between 45 and 66 indicates moderate levels of self-criticism. Finally, a ranking above 66 suggests a strong degree of self-criticism. The Iranian researchers Saadati, Mazboohi, and Marzi (2019) reported good internal consistency for this scale (alpha = 0.69 from Cronbach). As part of this study, Cronbach's alpha was 0.82, which indicates that the scale was reliable.

Table 1. Description of compassionate intervention training sessions (Gilbert, 2009)

Sessions	Session Objectives
First	Summary of the session: Introduction of the therapist. Introducing members of the meeting and introducing each other.
	Providing guidelines, including attending meetings on time and frequently, adhering to confidentiality, being engaged in
	group discussions, respecting boundaries, and having homework. By building empathy with the therapist and the training
	environment, participants will feel protected, which will encourage them to continue attending the sessions. Introduce
	the task and its objective. A brief description of the compassion-focused intervention model and its core structures
	follows. At the end of the training session, there will be a section on relaxation breathing rhythm.

Second	Topics to be covered: Assignments and a review of the Prevention Session, the way people treat themselves (critical or compassionate style), defining self-criticism and its causes and consequences, defining the three emotional regulation systems and their interactions, defining compassion. During the meeting, self-education was discussed, and its features were introduced. Homework: Practicing rhythmic breathing or other breathing techniques, and identifying self-critical thoughts and behaviors.
Third	Overview and Summary of the Session: What is Compassion for the Past Session and Review? Its features and skills, how it affects one's moods. Explaining the presence of the mind and its training. Talk about difficult situations and people's reactions to those situations. Perform mindfulness-breathing exercises at the end of the session. Homework: How compassionate you are to practice the session and answer the question
Fourth	Summary and Summary of the Session: Reviewing the assignment and review of the previous session, soothing breathing exercises (to relieve anxiety), identifying and creating a safe place. Introducing mental imagery and its training. Perform a compelling illustration exercise. Homework: Performing a session, and completing a compassionate skills table.
Fifth	Summary and Summary of the Session: Review the assignment and review of the previous session, develop self-compassion, and introduce and apply concepts: wisdom, ability, warmth, and responsibility in creating compassion. Complete letter-writing assignment. Homework: Do a session exercise and write a thoughtful letter.
Sixth	Summary and Summary of the Session: Review the assignment and review of the previous session and, write Part II of the Letter of Intent. Teaching the concept of Behaviorism and its logic. Teaching the development of valuable and transcendent emotions and the responsibility to create compassion. Use a metaphorical garden full of weeds. Colored illustration tutorial. Perform a sympathetic scan exercise at the end of the session. Homework: Do a session exercise.
Seventh	Summary and brief of the Session: Reviewing the assignment and reviewing the previous session, focusing on self-compassion, and identifying its different dimensions (attention, thinking, feeling, behavior). Discuss compassionate thinking and teach the influence of thoughts on anger, anxiety, and emotions. Practice raisin eating with the presence of the mind. Homework: Self-compassionate mental imagery.
Eighth	Summary of the session: Reviewing the assignment and reviewing the previous session, recalling compassion skills, and explaining the role of compassion in controlling emotions. Guiding how to think. Reviewing the training of compassionate and critical thinking. Discuss interpersonal sensitivities and responses to rejection and use compassionate skills to control and reduce these reactions. Performing compassionate practices with others, and compassion with others (using memory). Homework: Doing session practice, perfecting your compassionate skills.
Ninth	Summary and Summary of the Session: Reviewing the assignment and reviewing the previous session, recalling compassionate skills, and educating the chair technically. Perform breathing-relief breathing and then practice session technique. Homework: Do a session exercise
Tenth	Summary Title and Content: Review the assignment and review of the previous session, an overview of the previous sessions, and talk about the quality of the sessions. Members were asked to select and perform one of the exercises that they found most useful from the previous sessions.

Results

Participants (N = 30, females) were young adolescents (M age = 13.26; SD = 1.28) and there were no statistically significant differences in any of the study

variables between those excluded and the included sample.

Table 2. Descriptive indicators of pre-test scores – post-test self-compassion and self-criticism in experimental and control groups

	Variables	Pre-test		Chanina		Post-test		Shapiro-	
Groups		Mean	Std. Deviation	Shapiro- Wilk	Sig.	Mean	Std. Deviation	Wilk	Sig.
Control	self- compassion	49.25	10.757	0.961	0.715	49.83	10.730	0.969	0.845
	Self-criticism	68.13	8.887	0.973	0.894	67.27	6.408	0.898	0.088
Experimental	self- compassion	47.93	12.831	0.960	0.700	53.07	13.253	0.975	0.929
	Self-criticism	69.40	8.724	0.954	0.596	61.60	7.989	0.957	0.637

To determine the normalization of the distribution of scores, the Shapiro-Wilke test was used, which was confirmed due to the lack of significance obtained from the normal distribution of scores. The results of the test of pre-test regression gradient and post-test grades in the experimental and control group showed that the regression gradient in both groups was equal (p > 0.05, $F_4.46=0.693$).

The results of the Levene's test for studying the variance of variables dependent variables in the groups showed that the variance of the self-compassion variable (p > 0.05, F_1.28 =0.650) and self-criticism (p > 0.05, F_1.28=1.799) in the group is equal.

In this study, the box test for evaluating the equality of covariance matrix variables in the experimental and control groups also showed that the covariance matrix dependent variables in the groups were equal (F=0.873,

BOX M=2.838, p > 0.05). The results of the Xi-Bartlett test for chromatically or meaningful studies showed that the relationship between these components is significant (p < 0.01, df= 2° $x^2 = 32.620$). After evaluating

multivariate covariance analysis, the test results showed a significant difference between the self-compassion and self-criticism groups and control groups (Wilks Lambda=0.500, F_2.25 =12.476, P <0.01).

Table 3. The results of multi-variable covariance analysis to investigate the differences between experimental and control groups in self-compassion and self-criticism variables

Dependent Variable	Source	Type III Sum of Squares	df	Mean Square	F	Sig.	Partial Eta Squared
self-compassion	group	156.427	1	156.427	13.702	0.001	0.345
Self-criticism	group	314.872	1	314.872	14.823	0.001	0.363

According to Table 3, F for self-compassion (p < 0.01, $F_2.28=13.702$) and self-criticism (p < 0.01, $F_2.28=14.823$) are significant. Based on these results, these variables differ significantly between groups. Taking these results into consideration, it is possible to conclude that compassionate intervention training is effective at improving self-compassion and self-criticism. Furthermore, the effect size in Table 3 shows that group membership is responsible for 34.5% of self-compassion changes and 36.3% of self-criticism changes.

Discussion

The aims of the study included evaluating the effectiveness of the compassion-focused therapy model on self-compassion and self-criticism of adolescents with body image disorder, and to identify therapy processes important for such adolescents' treatment outcomes. CFT significantly improved self-compassion rates in this study, despite non-treatment conditions largely remaining unchanged. Further, significantly reduced the frequency of post-test symptoms of self-criticism. The efficacy of compassionfocused therapy was found to be correlated with decreases in shame, self-criticism, and isolation for social anxiety patients in Kotera, Green, & Sheffield, 2021; Boersma, Håkanson, Salomonsson, & Johansson, 2015). Additionally, Fatolaahzadeh et al. (2017) found that compassion-focused therapy reduced internalized shame and self-criticism in emotionally abused women. Sherman, Roper, and Kilby (2019) found that compassion-focused therapy reduced self-criticism and enhanced self-compassion among individuals with visible skin conditions. Previous research has found that some people have difficulty with CFT work and that tackling fears and blocks is an important part of the therapy (Gilbert, 2009). There has been research that suggests participants find it hard to maintain a compassionate image for long periods, find it difficult to generate a compassionate image that is not also selfcritical, and experience a range of fears or barriers, such as the belief that self-compassion is self-indulgent or destructive McManus, Tsivos, Woodward, Fraser, Hartwell (2018).

Interventions that promote self-compassion may increase the connection with the body and decrease self-objectification (Piran, 2015). In general, these

interventions aim to help people change their relationship with their body size and weight by fostering acceptance and appreciation of these attributes, with the ultimate goal of fostering positive embodiment (versus disembodiment). By promoting self-care and body appreciation, these activities reduce the tendency to compare oneself with others (Avalos, Tylka, & Wood-Barcalow, 2005). In two studies conducted by Albertson, Neff, and Dill-Shackleford (2015) and Toole Craighead (2016),researchers examined effectiveness of self-compassion-based online interventions for female undergraduate students with high levels of negative BI concerns. Based on the results of the study, the intervention programs increased body acceptance and decreased body dissatisfaction, among other effects. A similar study found that self-compassionate letter writing can enhance motivation for treatment-seeking in patients with anorexia nervosa (Kelly & Waring, 2018) and increase body satisfaction in undergraduate women (Stern & Engeln, 2018). Self-compassion-related interventions reduce self-criticism significantly, on average, when compared with control groups in a meta-analysis. Moderator analysis found that self-compassion-related interventions were more effective when compared with passive controls than active controls in reducing selfcriticism (Wakelin, Perman, & Simonds, 2022). According to Pedro, Branquinho, Canavarro, and Fonseca (2019), negative self-criticisms are associated with depression symptoms as well as negative appraisals of thought content. Furthermore, this study highlights the relationship between self-criticism and postpartum cognitions and the buffering role of selfcompassion. These results indicate the need to reduce self-criticism and promote self-compassion strategies to deal with postpartum cognitions and prevent and treat depression (Pedro et al., 2019).

It is beneficial to increase self-compassion regardless of the mental health challenges being faced. Psychological studies have shown that self-compassionate people have a better body image and are more psychologically healthy. Further, self-compassion is linked with several positive psychological qualities, including happiness, emotional intelligence, optimism, wisdom, curiosity, and personal initiative. Self-compassion "teaches individuals how to accept themselves. In the article, self-compassion is referred to as a skill that can be invaluable to body acceptance and body love. The

article discusses self-kindness, noting that being kind, gentle, and understanding of one's body rather than harshly judging it will directly counter the very root of body dissatisfaction-the tendency to criticize rather than accept it as it is. Furthermore, the self-compassion tenet of common humanity encourages individuals to accept "that all people are imperfect, make mistakes, and experience serious life challenges." Common humanity requires individuals to unite rather than feel isolated because of their imperfections. As it pertains to body image, individuals would be encouraged to embrace and find strength in their physical differences from others, instead of being isolated and shamed for them. Additionally, self-compassion refers to being aware of one's pain without attempting to amplify or ignore it. This enables individuals to relate to their painful thoughts about their body without acting on them, fixating on them, or over-identifying with those parts that they find uncomfortable (Albertson et al., 2015).

A limitation of the current study, as with other studies, is the small sample size, which limits its ability to generalize to a wider audience. Researchers should apply this new treatment to a broader range of conditions and use additional variables in a larger sample size as intermediate variables to gain a deeper understanding of this field by removing limitations. Another limitation is the possibility that the results can't be generalized since the study relies on self-reports. It is also possible to investigate differences between males and females, or across ages.

Conclusion

We found that adolescents high in self-compassion did not necessarily suffer negative consequences when they engaged in frequent body monitoring. Based on these results, we can conclude that interventions that focus on self-compassion might at least buffer adolescents from the chronic monitoring of their bodies that they are socialized to engage in.

Conflict of interest

The authors state that there is no conflict of interest in this study.

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ORCID

Fatemeh Vandshekari:

http://orchid.org/0000-0002-9657-1945

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