

Article 3

The Effects of a Brief Mindfulness Intervention on Self-Compassion Among Undergraduate College Students

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Recently, research related to the coping construct of self-compassion has shown that increased self-compassion can improve well-being (Neff, 2009). Well-being includes physical, mental, and emotional stability, an awareness of one's limitations, and the ability to recognize stress and utilize adaptive coping methods (Wester, Trepal, & Meyers, 2009). One way self-compassion training can be cultivated is through a mindfulness intervention that includes the teaching of lovingkindness meditation (LKM; Fredrickson, Cohn, Coffey, Pek, & Finkel, 2008). The mainstream definition of mindfulness is, "the awareness that emerges through paying attention on purpose, in the present moment, and nonjudgmental to the unfolding of the experience moment by moment" (Kabat-Zinn, 2003, p.145). LKM involves one directing compassion and wishes for wellness toward the self as well as towards real or imagined others (Hutcherson, Seppala, & Gross, 2008).

While the concept of self-compassion has existed in Eastern philosophical thought for centuries, it is relatively new in the West (Neff, 2009). Drawing on the writing of Buddhist scholars, Neff (2009) defined self-compassion as having three main components. These are self-kindness versus self-judgment, a sense of common humanity versus isolation, and mindfulness versus overidentification. Self-kindness is defined as a tendency to be caring and understanding with oneself rather than being critical or judgmental. Common humanity is the recognition that all humans are imperfect, fail, and make mistakes. Frustrations, losses, and mistakes are inevitable. Mindfulness involves being aware of one's present moment experience so that disliked aspects of the self are not ignored or ruminated upon.

LKM is a technique for self-compassion training. In LKM, one nurtures the intention to experience positive emotions during the meditation itself, as well as in one's life more generally. Through a variety of thoughts and visualizations, specific positive emotions (i.e., love, contentment, and compassion) are cultivated (Fredrickson et al., 2008). LKM is designed to create changes in emotion, motivation, and behavior in order to promote positive feelings and kindness toward the self and others (Hutcherson et al., 2008).

Research has supported that more self-compassionate people report less depression, lower levels of anxiety, and higher levels of self-esteem and self-efficacy than do less self-compassionate people (Baker & McNulty, 2011). Leary, Tate, Adams, Allen, and Hancock (2007) completed five studies with undergraduate college students which illustrated that self-compassion is an important construct that can mediate reactions to distress. The researchers found that self-compassion was related to lower negative emotions in real, remembered, and imaged events and was related to thought processes that are associated with adaptive coping. Self-compassionate individuals were more likely to accept undesirable aspects of their personality in a way that was healthy. These studies suggest that self-compassion is a key predictor of well-being.

While the literature regarding the benefits of self-compassion has been growing, there has been less written about the use of LKM as a technique to increase self-compassion. Sears and Kraus (2009) did a study that looked at the extent to which a mindfulness intervention that included LKM would be more efficacious than mindfulness interventions without LKM. Although all meditation groups were taught acceptance of whatever sensations, thoughts, or feelings may arise, the lovingkindness group also stressed qualities of friendliness, compassion, and joy. The group that focused on lovingkindness aspects of mindfulness was more impactful in reducing anxiety, negative affect, and increasing hope than in the conditions that did not utilize LKM (Sears & Kraus, 2009). LKM is integrated into a brief form of a mindfulness intervention in this study.

The purpose of this study was to assess the extent to which self-compassion can be increased in a randomized group of undergraduate college students using an innovative brief form of a mindfulness intervention compared to randomized participants in a waiting list control.¹

Method

Students were recruited for this study using a campus wide email listserv requesting participation of students during the spring 2011 semester. Initially, 700 students responded to the email indicating interest in participating in the study. All interested students were sent a short demographic questionnaire and the dates of the mindfulness interventions. Structured phone interviews were conducted with interested participants to assess potential motivation to complete the intervention. Additionally, participants were screened based upon exclusion criteria.

A randomized pretest-posttest control group design was employed. Following random assignment to groups and the pretesting phase, the sample was 34 participants with 16 participants in the treatment condition and 18 in the control condition of no treatment-the waiting list condition.

Participants received a \$50 stipend for their participation in the project. Five participants in the control group did not complete the second week of treatment due to personal emergencies. They received a \$25 stipend for their one week of participation.

The intervention followed a manualized protocol that taught mindfulness and LKM exercises using two 5-hour long group trainings followed by daily online booster treatments over the span of 2 weeks. The online booster treatments were designed to reinforce what participants learned during the in-person group trainings. A combination of mindfulness exercises, practice logs, and reminders regarding the philosophy informing mindfulness through the use of poems were utilized in the online component. Mindfulness exercises included learning to do mindfulness sitting, walking, eating, and movement meditation.

LKM exercises included teaching participants to direct compassion and wishes for well-being toward the self as well as towards real or imagined others. During the in-person training the participants were explicitly taught that lovingkindness assists one in developing kindness, compassion, joy, and balance for oneself and for others. Participants were given instructions to start the practice by extending lovingkindness in the order of oneself, a person one loves and cares about, and a challenging person. Participants are taught to silently repeat the phrases may I be happy, may I be healthy, may I be safe, and may I have the ease of well-being. *I* is then replaced with the individuals name one is sending lovingkindness to. The related online booster asks participants to respond to the following questions: What arose in your mind as you practiced loving-kindness for yourself? Describe the images or feelings that came up. What are the easiest and most difficult aspects of this practice? What was your experience in working with a difficult person?

The mindfulness exercises involved the training of one's attention toward the present moment in an open-minded (nonjudgmental) way, while the LKM involved the directing of one's emotions toward warm and tender feelings in an openhearted way. Information about stress reduction as well as cognitive therapy-based exercises linking thinking and its resulting impact on feeling were used in both a didactic and experiential format.

Self-compassion was measured using the Self-Compassion Scale (SCS) developed by Neff (2003). It is a 26 item measure consisting of six subscales. The names of the six SCS sub-scales are Self-Kindness, Self-Judgment, Common Humanity, Isolation, Mindfulness, and Over-identification. The items making up the SCS sub-scales have a 5 point scale ranging from 1 = almost never through 5 = almost always. Neff reported that an overall model Confirmatory Factor Analysis was conducted to assess the fit of the six intercorrelated factors to the 26 items selected for the final version of the SCS. The model was found to fit the data adequately well. Internal consistency reliability was .78 for the five-item Self-Kindness subscale, .77 for the five-item self-judgment subscale, .80 for the four-item Common Humanity subscale, .79 for the four-item isolation subscale, .75 for the four-item Mindfulness subscale, and .81 for the four-item Overidentification subscale. Internal consistency for the 26-item SCS was .92 (Neff, 2003). Neff also found that self-compassion had a significant negative correlation with anxiety and depression, and a significant positive correlation with life satisfaction.

Results

Data screening analyses were conducted. The dependent measures of the SCS total score and the SCS six sub-scale scores met the underlying assumption of normality and independence. The SCS sub-scale scores of Self-Kindness, Common Humanity, Isolation, and Mindfulness met the underlying assumption of homogeneity of variance ($\alpha = .05$). However, the scores on the scale of Self-Judgment, Over-identification, and SCS Total did not meet the assumption of homogeneity of variance. As such, a Welch procedure was used to adjust and correct the One-way Analysis of Variance procedure used to assess for significant difference in means across the conditions for the three scales not meeting the assumption.

The mean scores of the total SCS scale and six SCS sub-scales were analyzed comparing the treatment and control groups. The post intervention means and standard deviations for the two groups on the seven scales are presented in Table 1. High scores reflect higher self-compassion. The scores on Self-Judgment, Isolation, and Over-identification are reversed scored resulting in scores on the three sub-scales that indicate positive self-compassion.

Table 1

Post Intervention Means and Standard Deviations of the Two Groups on Self-Compassion Scales

	Mindfulness Treatment Group		Control Group	
Scale	Mean	Standard Deviation	Mean	Standard Deviation
Self-Kindness	3.66 ¹	.68	2.76	.83
Self-Judgment (R ²)	3.73	.81	2.89	.81
Common Humanity	3.77	.93	3.08	.81
Isolation (R)	3.92	.78	3.17	1.06
Mindfulness	3.88	.88	3.14	.80
Over-Identification (R)	3.67	.68	3.07	.88
SCS Total	3.77	.60	3.02	.67

¹Each SCS scale is measured using a Likert-type scale ranging from 1 = Almost Never to 5 = Almost Always. A high score is reflecting positive self-compassion.

²The R stands for reversed so after reversal the scale is reflecting a positive score on self-compassion.

Note. The differences of the means across the two groups on all scales are significantly different ($p < .05$).

The SCS scale scores of participants were analyzed before the treatment began. None of the pre-treatment means were significantly different ($p > .001$) between the

treatment and control groups, which provided evidence that the random assignment process was effective in equalizing groups on extraneous variance. One-way analyses of variance were conducted on the post intervention means on the SCS total scale and subscales between the treatment and control groups using an $\alpha = .05$.

The treatment group participants showed significantly higher mean scores on all SCS scales when compared to the participants in the control group (see Table 1). The effect sizes for the differences between the two groups on the seven scales were: Self-Kindness ($\eta^2 = .272$), Self-Judgment ($\eta^2 = .220$), Common Humanity ($\eta^2 = .141$), Isolation ($\eta^2 = .146$), Mindfulness ($\eta^2 = .170$), Over-Identification ($\eta^2 = .132$), and SCS Total ($\eta^2 = .271$). Six of the effect sizes are in the large effect range ($> .14$) and Over-Identification is in the medium effect range (Cohen, 1977).

Discussion

The construct of self-compassion and the use of LKM as a technique for increasing self-compassion has been previously researched. However, this construct had not been previously examined as an outcome variable with undergraduate college students as part of a mindfulness intervention, or a brief mindfulness intervention. This study demonstrates that incorporating LKM into a brief mindfulness intervention may be a viable option for increasing undergraduate students' well-being. This research is meaningful since typical mindfulness interventions are of a longer duration. The finding that a brief mindfulness intervention can increase self-compassion with a sample of undergraduate college students has implications for colleges' and universities' implementation of stress reduction programs. A brief intervention requires less financial and time resources and is more agreeable to undergraduate students' busy schedules. Additionally, while self-compassion has been established as a meaningful construct impacting well-being, the present study helps to confirm this construct as a meaningful variable that can be integrated using LKM in a brief format of a mindfulness intervention. This study represents early randomized control research using the brief mindfulness intervention with undergraduate students. Thus, the implementation of these methods should be considered experimental until additional replication studies have been conducted.

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Footnote

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