A Pilot Study and Randomized Controlled Trial of the Mindful Self-Compassion Program

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Objectives: The aim of these two studies was to evaluate the effectiveness of the Mindful Self-Compassion (MSC) program, an 8-week workshop designed to train people to be more self-compassionate. **Methods:** Study 1 was a pilot study that examined change scores in self-compassion, mindfulness, and various wellbeing outcomes among community adults ($N = 21$; mean [*M*] age = 51.26, 95% female). Study 2 was a randomized controlled trial that compared a treatment group (N = 25; *M* age = 51.21; 78% female) with a waitlist control group (N = 27; *M* age = 49.11; 82% female). **Results:** Study 1 found significant pre/post gains in self-compassion, mindfulness, and various wellbeing outcomes. Study 2 found that compared with the control group, intervention participants reported significantly larger increases in self-compassion, mindfulness, and wellbeing. Gains were maintained at 6-month and 1-year follow-ups. **Conclusions:** The MSC program appears to be effective at enhancing self-compassion, mindfulness, and wellbeing. © 2012 Wiley Periodicals, Inc. J. Clin. Psychol. 00:1–17, 2012.

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The past two decades have seen an explosion of research into the benefits of mindfulness, a quality of attention that has traditionally been cultivated in Buddhist meditation (Goldstein & Kornfield, 1987). According to the definition offered by Bishop et al. (2004), mindfulness has two main elements: paying attention to one's present moment experience as it is happening, and relating to this experience with a curious, open, accepting stance. There is ample evidence that mindfulness has positive psychological effects, including increased subjective wellbeing, reduced negative symptomology and emotional reactivity, and improved behavioral regulation (see Keng, Smoski, & Robins, 2011 for a review). Another construct stemming from Buddhist psychology that is now getting research attention due to its strong link to psychological health is self-compassion (Brach, 2003; Salzberg, 1997). Similar to definitions of compassion for others (Goetz, Keltner, & Simon-Thomas, 2010; Wispe, 1991), Neff (2003a, 2003b) proposes that self-compassion involves being touched by one's own suffering, generating the desire to alleviate one's suffering and treat oneself with understanding and concern. Self-compassion is relevant to all personal experiences of suffering, including perceived inadequacies, failures, and painful life situations more generally. Self-compassion comprises three interacting components: self-kindness versus self-judgment, a sense of common humanity versus isolation, and mindfulness versus over-identification when confronting painful self-relevant thoughts and emotions.

Self-kindness refers to the tendency to be caring and understanding with oneself rather than being harshly critical. When noticing some disliked aspect of one's personality, for example, the tone of language used to acknowledge the shortcoming is kind and supportive. Rather than attacking and berating oneself for not being "good enough," the self is offered warmth and unconditional acceptance (even though particular behaviors may be identified as unproductive and in need of change). Similarly, when life circumstances are stressful, instead of immediately trying to control or fix the problem, a self-compassionate response might entail pausing first to offer oneself soothing and comfort.

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The sense of common humanity in self-compassion involves recognizing that all humans are imperfect, that all people fail, make mistakes, and have serious life challenges. Self-compassion connects one's own flawed condition to the shared human condition, so that features of the self are considered from a broad, inclusive perspective. Often, however, when people notice something about themselves or their lives that they do not like, they feel "this should not be happening," that something has gone wrong. When failures and disappointments are experienced as an aberration not shared by the rest of humankind, people may feel isolated from others who are presumably leading "normal" happy lives.

Mindfulness in the context of self-compassion involves being aware of one's painful experiences in a balanced way that neither ignores nor ruminates on disliked aspects of oneself or one's life. It is necessary to be mindfully aware of personal suffering to be able to extend compassion towards the self. At the same time, it is important to pay attention in a grounded way that prevents being carried away by the storyline driving the suffering, a process that Neff (2003b) has termed "over-identification." This type of rumination narrows one's focus and exaggerates implications for self-worth.

Although mindfulness is required to experience self-compassion, it is important to recognize that the two constructs are not exactly the same. First, the type of mindfulness entailed in self-compassion is narrower in scope than mindfulness more generally. The mindfulness component of self-compassion refers to balanced awareness of the *negative* thoughts and feelings involved in personal suffering. Mindfulness in general refers to the ability to pay attention to any experience—positive, negative, or neutral—with acceptance and equanimity. Another distinction between mindfulness and self-compassion lies in their respective targets (Germer, 2009). Mindfulness tends to focus on one's internal *experience* (sensations, emotions, thoughts) rather than oneself as the *experiencer*. For example, in the case of lower back pain, mindful awareness might be directed at the changing pain sensations, perhaps noting a stabbing, burning quality, whereas self-compassion would be aimed at the person who is suffering from back pain. Self-compassion emphasizes soothing and comforting the "self" when distressing experiences arise, remembering that such experiences are part of being human.

Research indicates that individuals who are self-compassionate demonstrate better psychological health than those who lack self-compassion. For instance, greater self-compassion has consistently been found to predict lower levels of anxiety and depression (see Neff, 2012, for a review), which may be related to the finding that self-compassion tends to decrease cortisol and increase heart-rate variability (associated with the ability to self-soothe when stressed; Rockliff, Gilbert, McEwan, Lightman, & Glover, 2008). Greater self-compassion is also linked with less rumination, perfectionism, and fear of failure (Neff, 2003a; Neff, Hsieh, & Dejitterat, 2005). At the same time, self-compassionate people are less likely to suppress unwanted thoughts and are more willing to acknowledge their negative emotions as valid and important (Leary et al., 2007; Neff, 2003a).

Self-compassion is associated with positive psychological strengths such as happiness, optimism, wisdom, curiosity and exploration, personal initiative, and emotional intelligence (Heffernan, Griffin, McNulty, & Fitzpatrick, 2010; Hollis-Walker & Colosimo, 2011; Neff, Rude, & Kirkpatrick, 2007). Another strength of being self-compassionate is the ability to cope effectively with life stressors such as academic failure (Neff, Hseih, & Dejitthirat, 2005), divorce (Sbarra, Smith, & Mehl, 2012), childhood maltreatment (Vettese, Dyer, Li, & Wekerle, 2011), or chronic pain (Costa & Pinto-Gouveia, 2011). Self-compassionate individuals have been found to have improved relationship functioning (Neff & Beretvas, 2012; Yarnell & Neff, in press), and also report more empathetic concern, altruism, perspective taking, and forgiveness (Neff & Pommier, 2012). Self-compassion also promotes health-related behaviors such as sticking to one's diet (Adams & Leary, 2007), reducing smoking (Kelly, Zuroff, Foa, & Gilbert, 2009), seeking medical treatment when needed (Terry & Leary, 2011), and exercising (Magnus, Kowalski, & McHugh, 2010).

As the scientific literature supporting the beneficial nature of self-compassion expands, psychologists are becoming increasingly interested in ways to enhance self-compassion. Training in mindfulness is one important way to increase self-compassion, given that mindfulness is a prerequisite to self-compassion and is one of its constituent components. The most widespread

mindfulness training program is mindfulness-based stress reduction (MBSR), an experiential learning course that includes eight weekly group sessions, a half-day retreat, and a core curriculum of formal and informal mindfulness meditation practices (Kabat-Zinn, 1982). Mindfulness-based cognitive therapy (MBCT) is also an increasingly popular variant on MBSR that has been adapted for clinical use, particularly for the treatment of depression (Segal, Teasdale, & Williams, 2002). Meta-analytic reviews indicate that MBSR and MBCT lead to significant improvements in physical and psychological functioning in a wide range of populations (Chiesa & Serretti, 2009; Grossman, Niemann, Schmidt, & Walach, 2004; Hofmann, Sawyer, Witt, & Oh, 2010). There is also growing evidence that participation in MBSR and MBCT increases self-compassion (Birnie, Speca, Carlson, 2010; Kuyken et al., 2010; Lee & Bang, 2010; Rimes & Wingrove, 2011; Shapiro, Astin, Bishop, & Cordova, 2005; Shapiro, Brown, & Biegel, 2007).

In fact, some researchers have proposed that self-compassion may be a key mechanism by which mindfulness-based interventions improve wellbeing (Baer, 2010; Hölzel et al., 2011). In support of this idea, Shapiro, Astin, Bishop, and Cordova (2005) found that health care professionals who took an MBSR program reported significantly increased self-compassion and reduced stress compared to a waitlist control group, and that self-compassion mediated the reductions in stress associated with the program. Similarly, Kuyken et al. (2010) examined the effect of MBCT compared with maintenance antidepressants on relapse in depression, and found that increases in mindfulness and self-compassion both mediated the link between MBCT and depressive symptoms at 15-month follow-up. They also found that increased self-compassion (but not mindfulness) reduced the link between cognitive reactivity and depressive relapse.

Although mindfulness-based interventions can increase self-compassion, these programs devote relatively little time explicitly teaching skills of self-compassion and focus primarily on teaching techniques to enhance mindfulness. This suggests that an intervention program specifically targeting the development of self-compassion would be useful to maximize its benefits.

Paul Gilbert and colleagues have developed a general therapeutic approach designed to enhance self-compassion called compassion-focused therapy (CFT; Gilbert, 2010). Gilbert and Proctor (2009) note that therapy patients can often identify their maladaptive thought patterns ("I'm unlovable") and provide alternative self-statements ("I know for sure that some people love me"), but they do not necessarily find the process emotionally reassuring. Therefore, the goal of CFT is to help patients develop a sense of warmth and emotional responsiveness toward themselves as they engage in the therapeutic process. CFT accomplishes this through a variety of exercises including visualization, cultivating self-kindness through language, and by engaging in self-compassionate behaviors and habits. In a pilot study of the compassionate mind training (CMT, a group therapy approach based on CFT; Gilbert & Irons, 2005), hospital day treatment patients struggling with shame and self-criticism showed significant decreases in depression, self-attacking, shame, and feelings of inferiority (Gilbert & Procter, 2006). CFT is currently being used to treat eating disorders, bipolar disorder, depression, shame, and other psychological conditions (Gilbert, 2010; Goss & Allan, 2010; Kelly, Zuroff, & Shapira, 2009; Lowens, 2010). CFT is a therapy approach designed for use with clinical patients, but interventions that enhance psychological resilience in both clinical and nonclinical populations are also worth developing.

For the reasons given above, we developed a program specifically to enhance self-compassion called Mindful Self-Compassion (MSC). MSC may be considered a "hybrid" program applicable to both the general public and to some clinical populations. The term "mindful" is included in the name of the MSC program because it teaches basic mindfulness skills, which–as discussed above–are crucial to the ability to give oneself compassion. The structure of MSC is modeled on MBSR, with participants meeting for 2 or 2 1/2 hours once a week over the course of 8 weeks, and also meeting for a half-day meditation retreat. Note that the MSC program mainly focuses on helping participants to develop self-compassion, and includes mindfulness as a secondary emphasis (only one session in the 8-week course is exclusively devoted to teaching mindfulness skills). This suggests that the MSC program is complementary to MBSR or MBCT, which are able to devote more time to developing a deep and comprehensive understanding of mindfulness.

MSC teaches both formal (sitting meditation) and informal (during daily life) self-compassion practices. There are experiential exercises and discussion periods in each MSC session in addition to homework assignments to help participants learn how to be kinder to themselves. The goal

is to provide participants with a variety of tools to increase self-compassion, which they can integrate into their lives according to what works best for them. The program also teaches general skills of loving-kindness, which is a type of friendly benevolence given to oneself in everyday situations (compassion is mainly relevant for situations involving emotional distress). MSC is considered a resource-building course rather than group therapy, but because self-compassion is primarily aimed at emotional suffering, the MSC program always has two leaders, one of whom is a trained therapist for situations in which a participant requires the attention of a clinician.

Because the concept of self-compassion is new for many people, especially those who tend to be very self-critical, the starting point of the MSC program is explaining what self-compassion is and why it is necessary for wellbeing. The program makes it clear how judging oneself when things go wrong tends to exacerbate emotional pain, while self-compassion helps to alleviate that pain. MSC includes research evidence where appropriate, presenting it in an easy-to-understand manner. For instance, one of the strongest barriers to self-compassion is the belief that self-compassion is self-indulgent or that it will undermine personal motivation (Gilbert, McEwan, Matos, & Rivis, 2011). In the program, it is explained why this is not the case, citing research which demonstrates that self-compassion is associated with intrinsic motivation and greater personal initiative to make needed changes in one's life (Neff, 2003a; Neff, Rude, & Kirkpatrick, 2007). Because self-compassionate people do not berate themselves when they fail, they are less afraid of failure and more able to take on new challenges (Neff, Hseih, & Dejitterat, 2007). MSC teaches participants how to motivate themselves as they would a caring friend, by providing encouragement and support rather than punishment and condemnation.

At the beginning of the program a distinction is also made between self-compassion and self-esteem, as many struggles with self-judgment are actually struggles with self-esteem. Self-esteem is often based on self-enhancement and downward social comparisons and can lead to prejudice, ego-defensive anger, and narcissism (Crocker & Park, 2004; Twenge & Campell, 2005). It can also be unstable, rising and falling depending on one's latest success or failure (Crocker, Luhtanen, Cooper, 7 Bouvrette, 2003). In contrast, self-compassion provides kindness and understanding in the face of life's disappointments, does not require feeling "above average" or superior, and provides emotional stability when confronting failure or personal inadequacies.

Study 1

In order to explore whether participation in the MSC program would increase self-compassion, mindfulness, and wellbeing, we first conducted a pilot study to determine if the program improved outcomes. We gave participants a battery of self-report measures before and after the program to determine outcome change. Based on the research literature reviewed above, we hypothesized that participants would report higher levels of self-compassion, mindfulness, social connectedness, happiness, and life satisfaction, as well as lower levels of depression, anxiety, and stress. Finally, we examined whether gains in self-compassion and mindfulness would be maintained after a 6-month period.

Method

Participants. Study participants were recruited from the greater Boston area via announcements on the Internet, referrals by local area therapists and meditation teachers, and e-mail notifications from the yoga studio in which the MSC training was held. Individuals who signed up for the research study received a substantially reduced fee for the training program. A total of 23 people took the course, but two did not complete all the poststudy measures so 21 participants were finally included. Participants were 95% female, 87% Caucasian, and had a mean age of 51.26 (standard deviation [*SD*] = 11.28). The large majority (81%) of participants reported having prior meditation experience.

Measures. Baseline and postintervention measures were completed online 2 weeks before and after the program. Measures of self-compassion and mindfulness were also given 6 months

after completion of the program to see if gains for these key outcome variables were maintained. Thirteen of the original 23 participants completed the 6-month assessment.

Self-compassion. Participants were given the 26-item Self-Compassion Scale (SCS; Neff, 2003a), which assesses the positive and negative aspects of the three main components of self-compassion: Self-Kindness (e.g., "I try to be understanding and patient toward aspects of my personality I don't like") versus Self-Judgment (reverse-coded; e.g., "I'm disapproving and judgmental about my own flaws and inadequacies"); Common Humanity (e.g., "I try to see my failings as part of the human condition") versus Isolation (reverse-coded; e.g., "When I think about my inadequacies it tends to make me feel more separate and cut off from the rest of the world"); and Mindfulness (e.g., "When something painful happens I try to take a balanced view of the situation") versus Over-Identification (reverse-coded; e.g., "When I'm feeling down I tend to obsess and fixate on everything that's wrong."). Responses are given on a 5-point scale ranging from 1 (*almost never*) to (*almost always*). A mean score of self-compassion is then calculated, as research indicates that a single higher order factor of "self-compassion" explains the strong inter-correlations among the subscales (Neff, 2003a). Internal consistency reliability was $\alpha = .97$.

Mindfulness. Freiburg Mindfulness Inventory (Walach, Buchheld, Buttenmuller, Kleinknecht, & Schmidt, 2006) was used to measure mindfulness in everyday life. The 14 item short version was used, which includes items such as "I am open to the experience of the present moment" or "I am friendly to myself when things go wrong." Items are rated on a 4-point Likert-type scale. Internal consistency reliability was $\alpha = .94$.

Connectedness. The Social Connectedness Scale (Lee & Robbins, 1995) measures the degree of interpersonal closeness that individuals feel with other people, both friends and society. A sample item includes "I feel disconnected from the world around me." Responses were given on a 5-point scale ranging from 1 (*strongly agree*) to 5 (*strongly disagree*), with higher scores representing a stronger sense of belonging. Reliability of the scale was $\alpha = .93$.

Happiness. Participants' happiness was assessed with the 4-item Subjective Happiness Scale (Lyubomirsky & Lepper, 1999). On this measure, two items ask respondents to characterize how happy they are using absolute ratings and ratings relative to peers, while two offer brief descriptions of happy and unhappy individuals and ask respondents the extent to which the statements describe them. Responses are given on a 7-point scale from 1 (*not very happy*) to 7 (*very happy*). Internal consistency reliability was $\alpha = .91$.

Life-satisfaction. Participants received the Diener's Satisfaction with Life Scale (Diener, Emmons, Larsen, & Griffin, 1985), a commonly used 5-item measure of global life satisfaction that has been found to have good internal reliability, test-retest reliability, and validity. Internal consistency reliability was $\alpha = 90$.

Depression. The Beck Depression Inventory (Beck, Ward, Mendelson, Mock, & Erbaugh, 1961) is a well-known 20-item questionnaire with good psychometric properties that assesses cognitive, affective, motivational, and somatic symptoms of depression. Responses were given on a 4-point scale (ranging from 0 to 3). Internal consistency reliability was $\alpha = .74$.

Anxiety. The study employed the Speilberger State-Trait Anxiety Inventory – Trait form (Speilberger, Gorsuch, & Lushene, 1970), a commonly used 20-item anxiety questionnaire that has been found to have good psychometric properties. Responses were given on a 5-point scale ranging from 1 (*almost never*) to 5 (*almost always*). Internal consistency reliability was $\alpha = .93$.

Stress. The Perceived Stress Scale (Cohen, Kamarck, & Mermelstein, 1983) is a standardized, 10 item self-report questionnaire used to determine the extent to which a person perceives her or his life to be stressful. A sample question is "How often have you found that you could not

cope with all the things that you had to do?" Participants responded on a 5-point scale ranging from 1 (*never*) to 5 (*very often*). Internal consistency reliability was $\alpha = .92$.

Program evaluation. In an effort to assess participant's subjective perceptions of the value of the MSC program, they were asked "How would you rate this program overall?" Responses were given on a 5-point scale ranging from 1 (*poor*) to 5 (*excellent*).

Intervention. The MSC program consisted of 8 weekly meetings, with participants meeting in the evening for 2 hours once a week over the course of 8 weeks. The intervention was co-led by two clinical psychologists with long-term personal practices of mindfulness meditation and extensive professional experience with mindfulness-based and acceptance-based psychotherapy.

Each session of the MSC program focuses on a specific topic. The first session provides a general introduction and review of self-compassion. Week 2 provides foundational knowledge of mindfulness. Week 3 discusses the application of self-compassion in various aspects of life. Week 4 helps participants develop a compassionate inner voice. Week 5 emphasizes the importance of living in accordance with core values. Week 6 teaches skills to deal with difficult emotions. Week 7 centers on dealing with challenging interpersonal relationships. The final session discusses how to relate to positive aspects of oneself and one's life with appreciation. There is also a half-day retreat held between sessions four and five, in which fo4ur hours are spent in silence while doing various meditations, restorative yoga, and mindful eating.

Throughout the program, interpersonal exercises are used to generate an experience of self-compassion with fellow participants, facilitating feelings of common humanity. For example, participants may share in small groups the language they use when they criticize themselves, and discuss how to use kinder and more supportive language. Informal practices are taught such as placing one's hands on one's heart in times of stress, or repeating a set of memorized self-compassion phrases for use in daily life. Home practices are assigned at the end of each session such as writing a letter to oneself from the perspective of an ideally compassionate friend. Formal meditation practices are also taught including loving-kindness meditation (LKM), an ancient Buddhist practice designed to increase good will for oneself and others (Grossman, Niemann, Schmidt, & Walach, 2004), and a variant of LKM that emphasizes compassion for feelings of inadequacy or stress. Affectionate breathing is also taught, in which feelings of affection and warmth are brought to the experience of watching the breath. Participants are asked to do 40 minutes of self-compassion practice each day, which can be a combination of formal and informal practices.

The atmosphere of the group is kept warm and friendly, with ample discussion of participants' experiences in class as well as their home practice. Given that the program is not group therapy, participants are asked to talk only about aspects of their personal lives that they were comfortable sharing and that are pertinent to cultivating a practice of self-compassion. Also, for meditations or exercises that involve evoking compassion during difficult emotions, participants are instructed to recall only a mild to moderately difficult situation to keep participants from becoming overwhelmed. The MSC program focuses primarily on building the capacity to tolerate and transform difficult emotions rather than solving specific problems.

Results

Participants' ratings of the overall value of the MSC program were positive ($M = 4.71$, $SD = .46$). A series of matched-pair t tests were used to determine if there were significant pre/post changes in study variables. As shown in Table 1, participants reported significantly increased self-compassion, mindfulness, life satisfaction, and happiness, as well as decreased depression, anxiety, and stress. There was not a significant increase in social connectedness ($p = .35$). Six months after completion of the program participants filled out the self-compassion and mindfulness scales again. Matched-pairs t tests indicated that 6-month follow-up levels of self-compassion ($M = 3.37$, $SD = .60$) and mindfulness ($M = 2.85$, $SD = .54$) were significantly greater than pre-test (p's $< .05$), but were not significantly different from posttest, indicating that gains in self-compassion and mindfulness were maintained after the intervention.

Table 1
Pretest and Posttest Scores for the Pilot MSC Group Analyzed With Matched-Pairs t Tests

Outcome	Pretest *M (SD)*	Posttest *M (SD)*
Self-compassion	2.58 (0.65)	3.47 (0.79)**
Mindfulness	2.43 (0.49)	2.85 (0.71)*
Social connectedness	4.02 (0.88)	4.24 (0.57)
Life satisfaction	3.62 (1.65)	4.40 (1.49)**
Happiness	3.83 (1.50)	4.57 (1.36)*
Depression	1.45 (0.22)	1.22 (0.21)**
Anxiety	2.99 (0.72)	2.44 (0.81)**
Stress	3.14 (0.72)	2.73 (0.87)*

Note. MSC = mindful self-compassion; M = mean; SD = standard deviation.
t test significant at $^{*}p < .05$ and $^{**}p \leq .001$.

Discussion

Results of the first pilot test of the MSC program were encouraging. First, participants reported being pleased with the quality of the MSC program, indicating it was a positive experience for them. Moreover, participants demonstrated significantly increased self-compassion and mindfulness after the intervention, and these increases were maintained for at least 6 months. (Some caution should be exercised when considering these follow-up results, however. Only 13 out of 23 participants completed the follow-up measures, potentially biasing results if these self-selected responders felt they learned more from the program than nonresponders.) Program participation was also found to enhance psychological wellbeing, with participants reporting significantly higher levels of life satisfaction and happiness, as well as lower levels of depression, anxiety, and stress after completing the MSC course. This suggests that self-compassion is a teachable skill that enhances overall quality of life. While results were promising, a major limitation of this pilot study was that outcomes for the intervention group were not compared with a control group. To more adequately evaluate the effectiveness of the MSC program, therefore, we conducted a randomized controlled study that compared outcomes for individuals assigned to an MSC course or a waitlist control group.

Study 2

This study implemented a 2 (experimental vs. waitlist control group) X 2 (baseline, post-treatment) randomized study design, yielding a between-groups comparison condition.

There were a few additional outcomes examined in the second study. Firstly, we included a newly created measure of compassion for others (Pommier, 2011) based on Neff's (2003a) three-component model of self-compassion. This allowed us to determine if increases in self-compassion would result in increased compassion for others. We also added a measure of avoidance to the study, expecting that that self-compassion would give people the emotional stability to face rather than avoid their difficult thoughts and feelings.

We hypothesized that compared to controls, those taking the MSC course would demonstrate increased levels of self-compassion, mindfulness, other-focused compassion, social connectedness, happiness, and life-satisfaction, as well as decreased levels of depression, anxiety, stress, and avoidance. Wellbeing gains were expected to be maintained 6 months to a year after completion of the program. We hypothesize that pre/post changes in self-compassion would predict pre/post changes in other study variables, and also examined whether increased mindfulness would make a contribution to wellbeing over and above that attributed to self-compassion. Finally, we expected that the degree to which participants engaged in formal or informal self-compassion practices would predict increases in self-compassion.

Method

Participants. Participants were recruited in the same way as Study 1. Fifty-four people signed up for the study and were randomly assigned to the intervention or to a waitlist control group. Two participants in the intervention group missed more than three sessions due to work/family time constraints and were dropped from analyses. One intervention participant did not complete posttest measures (for unknown reasons) and was also dropped from analyses, meaning that only 24 participants were included in the intervention group. The intervention ($n = 24$) and waitlist control ($n = 27$) participants were highly similar. Intervention participants (M age $= 51.21$, $SD = 12.02$) were 78% female and 84% Caucasian; 80% had a graduate degree and 74% had prior meditation experience. Control participants (M age $= 49.11$, $SD = 11.59$) were 82% female and 85% Caucasian; 74% had a graduate degree and 78% had prior meditation experience.

Measures. All participants filled out self-report measures online 2 weeks before and 2 weeks after the intervention. For Study 2 we used a short form of the self-compassion scale (Raes, Pommier, Neff, & Van Gucht, 2011) to reduce participant burden. We also used a different mindfulness measure because some of the items in the Freiburg Mindfulness Inventory could be reinterpreted as self-compassion (e.g., "I am friendly to myself when things go wrong"). Instead, we used the Cognitive and Affective Mindfulness Scale – Revised (Feldman, Hayes, Kumar, Greeson, & Laurenceau, 2007), which is specifically designed to capture the definition of mindfulness offered by Bishop et al. (2007).

We measured interim self-compassion levels for the intervention group at weeks three and 6 of the 8-week course, to examine rates of change in self-compassion. Participants in the intervention group were given all the study measures 6 months and 1 year after completion of the program to determine if improvements would be maintained over time. All 24 participants completed the 6-month follow-up assessment and 15 participants completed the 1-year follow-up assessment.

Those on the waitlist took the course after the intervention group, but were not surveyed again.

Self-compassion. Self-compassion was assessed using the 12-item SCS-short form (Raes, Pommier, Neff, & Van Gucht, 2011), which has good psychometric properties and a near perfect correlation ($r = .98$) with the long form. Internal consistency reliability was $\alpha = .87$.

Mindfulness. The Cognitive and Affective Mindfulness Scale – Revised (Feldman, Hayes, Kumar, Greeson, & Laurenceau, 2007) assesses the ability to regulate attention, be aware of present moment experience, and accept that experience without judgment. Sample items include "I am able to focus on the present moment" and "I am able to accept the thoughts and feelings I have." Internal consistency reliability was $\alpha = 89$.

Compassion. Participants were given the recently created Compassion Scale (Pommier, 2011), which assesses compassion for others along similar dimensions as self-compassion. The scale includes six subscales: Kindness (e.g., "If I see someone going through a difficult time, I try to be caring toward that person."); Indifference (reverse-coded; e.g., "I don't concern myself with other people's problems."); Common Humanity (e.g., "Suffering is just a part of the common human experience"); Separation (reverse-coded; e.g., "When I see someone feeling down, I feel like I can't relate to them"); Mindfulness (e.g., "I notice when people are upset, even if they don't say anything"); and Disengagement (reverse-coded; e.g., "I often tune out when people tell me about their troubles."). Research indicates that the scale has an appropriate factor structure, and that a single higher order factor of "compassion" explains the strong inter-correlations among the subscales (CFI = .96). Responses are given on a 5-point scale ranging from 1 (*almost never*) to 5 (*almost always*). Internal consistency reliability was $\alpha = .84$.

Avoidance. The Avoidance subscale of the Impact of Event – Revised (Weiss & Marmar, 1997) was used as a measure of avoidance of difficult thoughts and feelings. Individuals reported

how they responded to a recent stressful event with items such as "I tried not to think about it" or "My feelings about it were kind of numb." Reliability was $\alpha = .83$.

Other measures. As in Study 1, the Social Connectedness Scale (Lee & Robbins, 1995), Subjective Happiness Scale (Lyubomirsky & Lepper, 1999), Satisfaction with Life Scale (Diener, Emmons, Larsen, & Griffin, 1985), Beck Depression Inventory (Beck, Ward, Mendelson, Mock, & Erbaugh, 1961), Speilberger State-Trait Anxiety Inventory (Speilberger, Gorsuch, & Lushene, 1970), and Perceived Stress Scale (Cohen, Kamarck, & Mermelstein, 1983) were given to participants. Internal consistency reliabilities ranged from $\alpha = .86$ to .94. Also as before, we asked for overall ratings of the MSC program.

Amount of formal and informal self-compassion practice. Participants were asked to subjectively estimate how many days per week they engaged in formal meditation practice, on average, over the course of the MSC program. Because participants learned a variety of meditations in the course (e.g., loving-kindness meditation, affectionate breathing), we did not assess the particular type of meditation practiced, just how many days a week they practiced. They were also asked to subjectively estimate how many times per day they used informal self-compassion practices (e.g., hand on heart in times of distress, self-compassionate language).

Intervention. The intervention group participated in the 8-week MSC program described earlier, led by the same instructors. The program ran the same way in Study 2 as in Study 1.

Results

First, we examined whether there were significant differences between the intervention and control group on any demographics or measures at pretest, and none were found. As in Study 1, participants' ratings of the MSC program were positive ($M = 4.67$, $SD = .57$).

Next, matched pairs *t* tests were used to examine pre/post changes in study outcomes, looking at the intervention and control groups separately. The intervention group demonstrated improvements in all outcomes (all p's $< .05$): increased self-compassion, mindfulness, compassion for others, social connectedness, life satisfaction, and happiness, as well as decreased depression, anxiety, stress, and avoidance. The waitlist control group also demonstrated significant increases in self-compassion, mindfulness, and happiness ($p < .05$), as well as a marginally significant increase in social connectedness ($p = .07$).

To determine if the intervention group demonstrated a greater degree of improvement than the waitlist control group, outcomes were examined using a series of 2 (Group) X 2 (Time) repeated measures analyses of variance. Results are shown in Table 2, including effect sizes calculated by examining gain scores with Cohen's *d*. Compared with controls the intervention group demonstrated significantly greater gains in self-compassion, with Cohen's *d* indicating a large effect size of group participation. The intervention group also demonstrated significantly greater gains in mindfulness (medium effect size), compassion for others (medium effect size), and life satisfaction (medium effect size), as well as larger decreases in depression (large effect size), anxiety (medium effect size), stress (small effect size), and avoidance (medium effect size) than the control group. Group differences were not significant for social connectedness and happiness.

Because we wanted to examine incremental change in self-compassion over the course of the intervention, participants were asked to fill out the self-compassion measure at Weeks 3 and 6 of the MSC program, in addition to measurements at posttest, 6-month, and 1-year follow-ups. Matched-pairs *t* tests indicated that self-compassion increased significantly from pretest to Week 3 of the program and from Week 3 to Week 6 (p's $< .01$), but that levels remained stable after that with no significant changes from the Week 6 assessment to the posttest, 6-month, or 1-year follow-up assessments (p's $> .05$). Results are presented in Figure 1.

We also examined whether other gains associated with participation in the MSC program would be maintained 6 months and 1 year after completion of the program using matched-pairs *t* tests. There were no significant changes (all p's $> .05$) for mindfulness, compassion for others,

Table 2
Pretest and Posttest Mean Scores by Group and MSC Intervention Effects Analyzed With 2 (Group) X 2 (Time) Repeated Measures Analyses of Variance, and Effect Sizes Using Cohen's d (Calculated With Gain Scores)

	MSC group		Control group			
Outcome	Pretest *M (SD)*	Posttest *M (SD)*	Pretest *M (SD)*	Posttest *M (SD)*	*F*	Effect size Cohen's *d*
Self-compassion	2.65 (0.68)	3.78 (0.60)	2.75 (0.71)	2.93 (0.67)	31.79**	1.67
Mindfulness	2.46 (0.62)	2.92 (0.51)	2.47 (0.62)	2.60 (0.56)	8.03**	.60
Other-compassion	4.17 (0.44)	4.46 (0.47)	4.17 (0.49)	4.16 (0.41)	11.91**	.68
Social connectedness	3.68 (1.07)	4.09 (0.99)	3.42 (1.07)	3.69 (1.13)	0.38	.13
Life satisfaction	3.61 (1.59)	4.48 (1.61)	3.60 (1.57)	3.70 (1.61)	8.09**	.51
Happiness	3.86 (1.20)	4.38 (1.14)	3.46 (1.47)	3.78 (1.58)	0.62	.15
Depression	1.74 (0.34)	1.33 (0.29)	1.61 (0.43)	1.56 (0.46)	17.42**	.86
Anxiety	3.04 (0.71)	2.44 (0.74)	3.01 (0.70)	2.94 (0.73)	10.88**	.76
Stress	3.11 (0.59)	2.80 (0.70)	3.11 (0.56)	3.03 (0.60)	4.13*	.37
Avoidance	2.40 (0.75)	2.01 (0.71)	2.13 (0.75)	2.15 (0.82)	4.48*	.50

Note. MSC = mindful self-compassion; M = mean; SD = standard deviation.
*p < .05. **p < .01.

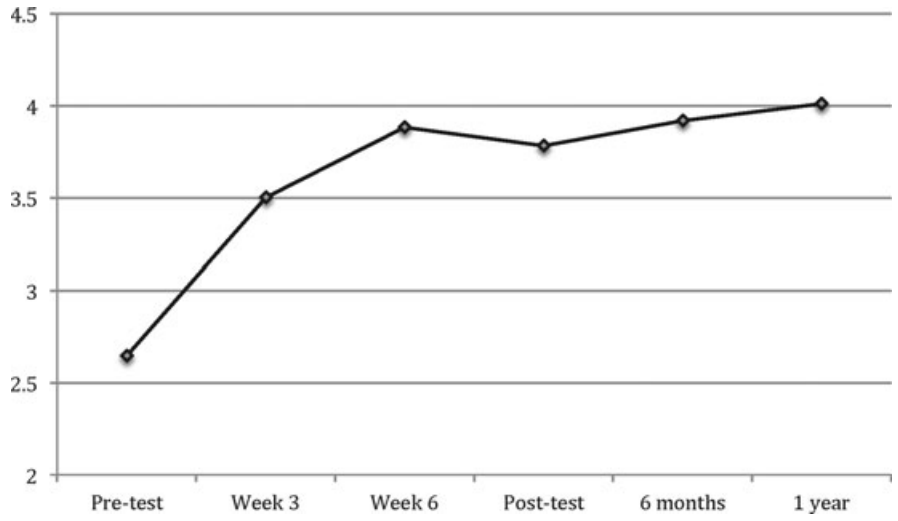

Figure 1. Self-compassion levels before, during, and after the 8-week MSC program.

social connectedness, life satisfaction, happiness, depression, anxiety, stress, or avoidance from posttest to 6-month follow-up, suggesting that all gains were maintained. Similarly, there were no significant changes (all *p*'s > .05) from posttest to 1-year follow-up for all study outcomes except life satisfaction. Life satisfaction actually increased significantly from posttest ($M = 4.42$, $SD = 1.65$) to 1-year follow-up ($M = 4.90$, $SD = 1.25$): $t\,(13) = 2.37$, $p = 0.04$.

We next examined whether increased self-compassion predicted increased wellbeing among the intervention group using pre/post residual change scores. We also examined whether increased mindfulness made any additional contributions to wellbeing gains. A series of hierarchical regression analyses were conducted that assessed the contribution of pre/post residual change in self-compassion in step 1, and then added residual change in mindfulness in step 2 (see Table 3). When looking at the contribution of self-compassion in step 1, it was found that increased self-compassion was significantly associated with wellbeing gains for every outcome

Table 3
Standardized Regression Coefficients for Pre/Post Residual Change in Self-Compassion (SC) Predicting Pre/Post Residual Change in Study Outcomes in the MSC group, With Pre/Post Residual Change in Mindfulness (MIND) Added in Step 2

	Step 1		Step 2		
Outcome	SC β	R^2	SC *B*	MIND *B*	Δ R^2
Mindfulness	.49*	.24*	–	–	–
Other-compassion	.49*	.24*	.31	.37†	.11†
Social connectedness	.62*	.39*	.59*	.06	.00
Life satisfaction	.42*	.17*	.27	.31	.07
Happiness	.67*	.44*	.46*	.43*	.14*
Depression	−.62*	.39*	−.77*	.21	.02
Anxiety	−.82*	.66*	−.70*	−.23	.04
Stress	−.55*	.30*	−.31†	−.49*	.18*
Avoidance	−.18	.03	.03	−.44†	.15†

MSC = mindful self-compassion.
*p ≤ .05. †p < .07.

except avoidance. When looking at step 2, increased mindfulness was found to contribute significant additional variance in terms of compassion for others, happiness, and perceived stress (findings were marginal for compassion). Increased mindfulness was the only significant predictor of avoidance.

Finally, analyses examined the degree to which participants engaged in formal meditation or informal self-compassion practice, and whether this was associated with pre/post residual change in self-compassion scores. The mean number of days that participants reported practicing formal meditation was 5.48 (range 2 to 7; $SD = 1.50$). The mean number of times per day that participants reported using informal self-compassion practices was 5.48 (range 1 to 20; $SD = 5.95$). Results indicated that increases in self-compassion were significantly related to the number of days a week that participants meditated ($r = .42$, $p < .05$), as well as the number of times per day they informally practiced self-compassion ($r = .43$, $p < .05$).

Discussion

The results from this randomized controlled trial suggest that the MSC program effectively teaches individuals how to become more compassionate toward themselves. First, the program was highly evaluated by participants. MSC participation also resulted in a significantly greater increase in self-compassion as compared with a waitlist control group. In fact, the intervention group had a 1.13 point increase on the SCS (out of 5 possible), with a large effect size indicated (Cohen, 1988). To provide comparative insight into the size of this increase, three studies on MBSR (Birnie, Speca, & Carlson, 2010; Shapiro, Astin, Bishop, & Cordova, 2005; Shapiro, Brown, & Biegel, 2007) yielded on average a .54 point increase on the SCS, while three MBCT studies (Kuyken et al., 2010; Lee & Bang, 2010; Rimes & Wingrove, 2011) yielded an average increase of .30 points. This suggests that the specific targeting of self-compassion in the MSC program is particularly effective.

In addition to increasing self-compassion, the MSC program significantly increased the mindfulness of participants as compared with controls, with a medium effect size indicated, which was not surprising because mindfulness is a foundational element of self-compassion and is explicitly taught in MSC. Note that MSC had a smaller effect on mindfulness than self-compassion, however, most likely reflecting the program's primary emphasis on building self-compassion and secondary emphasis on teaching mindfulness.

MSC participants' levels of compassion for others also significantly increased compared with controls, with a medium effect size indicated. This is consistent with Longe et al.'s (2009) finding that intentionally cultivating self-compassion stimulates parts of the brain associated with compassion more generally. The current results suggest that enhancing the capacity to respond to suffering with caring concern is a general process applied to both oneself and others, so that self-compassion and compassion for others go hand in hand.

The MSC program was successful in enhancing participants' psychological functioning along several dimensions. Compared with the control group, MSC participants experienced significantly greater life satisfaction as well as less anxiety, depression, stress, and avoidance (with small to large effect sizes indicated). Note that significant group differences were not found in happiness or social connectedness. This may be due in part to the significant gains in wellbeing also experienced by the control group. When examining the intervention and control groups independently, results indicated that MSC participants' scores on all outcome measures significantly increased from pretest to posttest, but that the control group's levels of self-compassion, mindfulness, happiness, and social connectedness *also* significantly increased (marginally so for connectedness). This may help explain why intervention participants' gains in happiness and social connectedness were not significantly greater than those of the control group. The question remains, however, as to why outcomes for the control group improved.

Merely signing up for a study to learn about self-compassion may have led the waitlist control group participants to feel more connected to others interested in the topic, and also happier about the decision to make a change in their lives. Increases in levels self-compassion and mindfulness are less easily explained, however. To explore the issue further, we contacted control group participants after completion of the study to inquire if they had engaged in activities during the study period to increase their self-compassion. Specifically, we asked if they had read books on self-compassion (e.g., Germer, 2009, Neff, 2011), or visited websites that offer information and downloadable meditations on the topic (www.self-compassion.org, www.mindfulselfcompassion.org). We also asked if they had tried to bring more self-compassion into their everyday life. Almost all the participants ($N = 26$) responded. Fifty percent reported reading books or learning about self-compassion online, and 77% said they had intentionally tried to practice self-compassion in their lives. This actually strengthens confidence in current study findings because the waitlist control group was relatively active in their attempts to increase self-compassion, making comparative gains by the intervention group more marked.

In terms of changes in self-compassion over time, we found that the intervention participants' SCS scores increased from pretest to Week 3 of the program, and then increased again from Week 3 to Week 6 of the program, but did not significantly increase from Week 6 to posttest. Moreover, there were no changes in self-compassion when examined 6 months and 1 year later. These results suggest that skills of self-compassion imparted in the MSC program are learned gradually, but that once they are learned they remain relatively stable. Similarly, wellbeing gains in terms of mindfulness, compassion for others, social connectedness, life satisfaction, happiness, depression, anxiety, stress, and emotional avoidance observed from pretest to posttest were maintained 6 months and 1 year later. In fact, life satisfaction actually increased from posttest to 1-year follow-up. Thus, the benefits of participation in MSC appear to be robust and long lasting. (As mentioned in Study 1, caution should be used when interpreting the 1-year follow-up results because only 15 out of 24 completed these measures. This self-selection may have skewed results toward those who were especially satisfied with the benefits they derived from the program).

This study also examined whether pre/post changes in self-compassion predicted pre/post changes in mindfulness, compassion for others, and various aspects of wellbeing. Results indicated that increased self-compassion was significantly associated with gains in mindfulness, compassion for others, social connectedness, life satisfaction, happiness, depression, anxiety and stress, but not avoidance. We also examined whether mindfulness made additional contributions to improved outcomes. Regression analyses found that mindfulness explained significant additional variance in happiness and perceived stress, and marginally significant variance in compassion for others. Moreover, mindfulness was the only significant predictor of avoidance. This makes sense given that mindfulness involves turning toward and accepting one's experience

rather than resisting or ignoring it (Bishop et al., 2004). Still, it should be noted that self-compassion was the only significant predictor of social connectedness, depression and anxiety even after taking the contribution of mindfulness into account.

One important difference between self-compassion and mindfulness is that self-compassion includes feelings of kindness and common humanity. An increased perception of shared humanity is likely to be related to increased feelings of social connectedness, while the soothing qualities of self-kindness are likely to reduce depression and anxiety (Pauley & McPherson, 2010). These findings are consistent with those of another study (Van Dam, Sheppard, Forsyth, & Earleywine, 2011), which found that self-compassion explained up to 10 times more variance than mindfulness in symptom severity and quality of life among individuals with mixed anxiety and depression. Overall, however, results indicate that both self-compassion and mindfulness are key benefits of the MSC program.

Finally, this study found that the more MSC participants practiced formal meditation, the more they increased their self-compassion levels. Similarly, the degree that participants practiced informal self-compassion techniques (e.g., putting a hand over one's heart in times of stress) in daily life also predicted gains in self-compassion. This implies that self-compassion is teachable skill that is "dose dependent." The more you practice it the more you learn it.

General Discussion

The results of these two studies of the MSC program—one a pilot and the other a randomized controlled trial—suggest that MSC is effective at increasing self-compassion, mindfulness, compassion for others, and other aspects of wellbeing. Moreover, the benefits of MSC appear to be enduring, lasting at least 1 year after completion of the program. Given that research is increasingly proving self-compassion be an important aspect of mental and physical health, the creation of a program that successfully teaches people how to be more self-compassionate should be of interest to many. MSC has the potential to help people stop their debilitating self-criticism, and instead learn to accept themselves as imperfect human beings worthy of compassion. By doing so, individuals can increase their happiness and psychological resilience. The fact that the MSC program also increases compassion for others suggests that, far from being self-indulgent, self-compassion fosters mutual understanding and empathy for all.

The MSC program can hopefully be implemented in a complementary way to other mindfulness-based interventions such as MBSR and MBCT. While these programs have been shown to increase self-compassion, their primary emphasis must necessarily be on teaching mindfulness given the time constraints of an 8-week course. Similarly, the MSC program increases mindfulness but not as much as self-compassion, which is its primary focus. In the Buddhist tradition, mindfulness and compassion are considered to be two wings of a bird (Krause & Sears, 2009), and each has overlapping yet unique benefits for wellbeing. It is fitting, therefore, that different programs be created to develop each skill deeply and comprehensively.

Limitations and Future Research

There were several limitations to this research that need to be considered. First of all, the participants in these studies were mostly highly educated, middle-aged females who had prior meditation experience. This was by no means a diverse sample, and it is unclear whether the MSC program would work as effectively for men or for those with less education. Also, it might be the case that the meditations and informal practices taught in the program require prior meditation practice to be effective. On the other hand, the fact that MSC participants increased in wellbeing even though most had prior meditation experience suggests that MSC offers tangible benefits over and above meditation alone. To determine if MSC is of benefit to a wider variety of populations, a great deal of additional research will be needed. Moreover, research should be conducted to examine if the MSC program is effective with people suffering from various psychopathologies. Although research suggests that self-compassion is a resiliency factor for clinical populations (Baer, 2010), the program may need to be adapted for specific target groups in order to be better assimilated and understood.

Another limitation of the study is that it did not use an active control group, meaning that other factors could have been responsible for results. One comparison group that would be of particular interest to examine would be those taking an MBSR course, as these two programs are likely to have overlapping but not identical impacts on wellbeing. It is likely that MBSR is more effective at teaching mindfulness, while MSC is more effective at teaching self-compassion. MBSR may also have a greater effect on variables related to present-moment awareness such as savoring, flow, selective attention, and so on. MSC, in contrast, may have a stronger effect on outcomes related to personal wellbeing such as anxiety and depression. There might also be individual difference variables that affect the comparative efficacy of each program. For instance, individuals who are highly stressed may benefit more from MBSR, since MBSR was initially designed as a stress reduction program, while individuals with high levels of self-criticism might benefit more from an MSC course. Given the focus of MSC on emotional distress, MSC also has the potential to ameliorate symptoms in a variety of clinical populations. This would suggest that another interesting active control group for a randomized-controlled study might be the MBCT program, which was specifically designed to prevent relapse into depression.

Given that research on MSC is brand new, future research directions for the MSC program are numerous. For instance, it might be helpful to teach the MSC course to targeted populations, such as adolescents, college students, clinicians, health care professionals, parents, spouses, to help them deal with the challenges of life with greater ease. By wrapping emotional pain in the warm embrace of self-compassion, suffering is ameliorated and wellbeing is enhanced, allowing for healthier functioning in daily life.

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