PILOT STUDY

Effectiveness of Mindful Self-Compassion Training Supported by Online Peer Groups in China: A Pilot Study

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ABSTRACT

Context • Self-compassion training involves the cultivation of feelings of warmth and safety, presence, and interconnectedness. Mindful Self-Compassion (MSC) training in a group setting has been found to increase self-compassion, mindfulness, and emotional well-being.

Objective • The current study intended to examine the outcomes of live, online, videoconference-based MSC training with online peer-support for nonclinical populations in different cities in China.

Design • The research team designed a pre-post pilot study.

Setting • The study took place at Renmin University in Beijing, China.

Participants • Participants were 253 Chinese individuals who were recruited from different regions in China through online advertisements.

Intervention • Participants took part in online MSC training in a two-hour, group class each week for eight weeks and received support from online peer groups and through a half-day in-person retreat.

Outcome Measures • Self-report outcomes were obtained at baseline and postintervention, using the Self Compassion Scale (SCS) and the Compassion for Others Scale (CS) for primary outcomes, and the Depression, Anxiety, and Stress Scale (DASS-21), the Fear of Compassion Scale (FOCS), the Satisfaction with Life Scale (SWLS), the Subjective Happiness Scale (SHS), and the Cognitive and Affective Mindfulness Scale (CAMS-R), for secondary outcomes. A fixed effects model was used to test for within-group changes in the scales.

Results • The online MSC program yielded a high retention rate. Of the 206 first-time participants, 179 (86.9%) attended six or more of the eight MSC sessions, and 183 (88.8%) completed the assessments at both baseline and postintervention. Of the 183 retained participants, 97.8% were female, with an average age of 37.8 ± 7.9; 94% had college or higher education. For all scales, the within-person changes occurred in the expected direction; positive attributes and experiences increased, while negative attributes and experiences decreased.

Conclusions • The study showed that first-time participants in China in an online MSC training that was supported by online peer groups had high attendance rates, high assessment completion, and favorable results. These preliminary outcomes suggest that future studies with more rigorous designs are warranted to further investigate online training with peer support as an effective and efficient approach to disseminate MSC training in China. (*Altern Ther Health Med.* [E-pub ahead of print.])

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Mindfulness, according to Kabat Zinn,[1] is awareness that arises through paying attention, on purpose and nonjudgementally, in the present moment. It's a mental state used as a therapeutic technique and achieved by an individual focusing awareness on the present moment while calmly acknowledging and accepting his or her feelings, thoughts, and bodily sensations.

Mindfulness is usually attained through the practice of meditation, using various techniques such as breathing, guided imagery, meditative movement, and other practices to relax the body and mind.[2] In the past several decades, mindfulness has been introduced as a secular psychological intervention to alleviate various physical and psychological conditions including: (1) stress, using mindfulness-based stress reduction (MBSR)[3]; (2) depression, applying mindfulness-based cognitive therapy (MBCT)[4]; (3) emotional dysregulation, using dialectical behavior therapy[5,6]; and (4) problematic substance use, applying mindfulness-based relapse prevention (MBRP).[7-12]

Mindfulness and Compassion

Compassion is a deep awareness of others' suffering and the wish to alleviate it.[13] It can be defined as "a feeling of deep sympathy and sorrow for another who is stricken by suffering or misfortune, accompanied by a strong desire to alleviate the pain or remove its cause."[14] Mindfulness and compassion are highly interconnected.

Shapiro[15] pointed out that mindfulness is a kind, curious, and compassionate awareness and that when individuals practice mindfulness, they are simultaneously strengthening their skills of compassion. Research has shown that the practice of mindfulness increases empathy and compassion for others as well as for oneself.[16]

Compassion is vital to healthcare. In treating and caring for ill people, effective providers and caretakers use and express compassion that in turn strengthens and comforts the sufferer.[17] For healthcare practitioners, compassion is associated with lower rates of practitioner burnout, fewer mistakes, and decreased malpractice cases. Patients who are treated with compassion tend to have better adherence to medications and increased patient satisfaction.[18]

Self-compassion, an approach to directing caring and understanding toward oneself, has gained increased attention in recent years. Self-compassion training involves the cultivation of feelings of warmth and safety, presence, and interconnectedness.[19] This technique is a means of resiliency that can reduce stress, burnout, emotional exhaustion, depression, and anxiety as well as increase life satisfaction, optimism, social connectedness, and happiness.[20]

Self-compassion is associated with positive psychological strengths, such as happiness, optimism, wisdom, curiosity and exploration, personal initiative, and emotional intelligence. It also strengthens individuals' ability to cope with life stressors, such as academic failure, divorce, childhood maltreatment, or chronic pain.[21] Self-compassionate individuals have been found to have improved relationship functioning[22] and also report more empathetic concern, altruism, perspective taking, and forgiveness.[23]

Neff[20] suggests a three-faceted structure to self-compassion: self-kindness, mindfulness, and acknowledgment of common humanity. Cultivation of these characteristics diminishes feelings of self-criticism and shame that accompany negative thoughts and depression.[24] Self-kindness refers to the predisposition to be caring and understanding of oneself rather than being harshly critical. Common humanity involves recognizing that all humans are imperfect and that all people fail, make mistakes, and experience serious life challenges. Mindfulness counters overidentification—identifying oneself to an excessive degree with someone or something else, especially to the detriment of one's individuality or objectivity—and reduces excessive fixations on negative thoughts.[25]

Mindful Self-Compassion Training

Germer and Neff[26] designed an eight-week, mindful self-compassion (MSC) training, modeled on the structure of MBSR. Participants meet 2 to 2.5 hours a week for eight weeks and at a half-day meditation retreat. In each MSC session, discussions and experiential exercises on self-compassion occur, and participants have corresponding homework assignments so that they can learn to integrate the tools for self-compassion into their lives.

In 2013, Germer and Neff[26] performed two pilot studies to evaluate the effectiveness of their MSC program. In the first study, they found that participants increased their levels of self-compassion and mindfulness postintervention. In the second study, participants who received the training reported significantly greater increases in self-compassion, mindfulness, and other well-being outcomes compared to the wait-list control group.

Their MSC program has been offered in various countries outside of the USA. For example, Finlay-Jones et al[27] investigated the effects of providing an MSC program in person to a Chinese community sample. The researchers reported positive outcomes, including increases in self-compassion and compassion for others, improved feelings of well-being, and decreases in psychological distress. They also reported that maladaptive perfectionism wasn't a moderator of these effects.

With the advance of online videoconferencing technology, the trend for remote learning is increasing, including the teaching of mindfulness-based skills. The novel approach of online mindfulness education is made possible by widespread availability of broadband, inexpensive webcams, and the worldwide population's high levels of skills in the literacy of computer technology. The development of affordable, contemporary videoconferencing platforms allows concurrent learning for large numbers of participants and increases the usefulness and efficiency of remote learning.

Providing online mindful education provides many benefits, including removing geographical barriers and lowering the cost and time needed for participants to travel

to the training site. People can participate from anywhere in the world as long as they have a computer or smartphone with an internet connection. Online access opens up the opportunity for high quality training that otherwise would be unavailable to many people. In addition, the online format allows for dynamic interactions between instructors and students and among students themselves. Students can participate actively by raising questions or offering comments at any time during the training due to those features in videoconference applications. This allows for a ready exchange of ideas in the learning process.

Some research has shown that it's feasible and acceptable to offer online mindfulness meditation training to different populations, including older adults at risk for greater chronic stress and cognitive decline to reduce negative outcomes[28]; health professionals to improve their gratitude, well-being, self-compassion, and confidence in providing compassionate care[29]; medical students to increase self-compassion[30]; and rural medical students to reduce stress and increase self-compassion and professional attitudes and behaviors.[31]

Ongoing research studies are providing mindfulness-based education programs remotely to groups suffering from various medical and psychological conditions, such as people with Parkinson's disease,[32] patients with multiple sclerosis to reduce fatigue and psychological symptoms,[33] children with epilepsy and their families,[34] and pregnant women with pregnancy-related distress.[35]

The current research team hypothesized that Chinese participants who received MSC training would experience, as the primary outcomes, increased mindfulness and compassion for self and others, and as the secondary outcomes, increased subjective satisfaction with life and happiness; decreased fear of self-compassion, examined through measuring unwillingness to express self-compassion; and reduced psychological distress as indicated by depression, anxiety, and perceived stress.

The current study intended to examine the outcomes of live, online, videoconference-based MSC training with online peer-support for nonclinical populations in different cities in China.

METHODS

Participants

The study was designed as a pilot study, comparing data collected from participants at baseline and postintervention. In 2018, the research team advertised an online, live MSC program in WeChat, a highly popular, social media platform in China. People interested in the program responded to the advertisement and submitted their applications and payments online.

Potential participants were included in the study if they: (1) consented to participate in online outcome surveys and (2) indicated that they would be able to complete the outcome measures on time. No compensation was provided for participation.

The 435 responding potential participants were invited to join the study two days before the MSC Program started. Of them, 20 people declined to participate, and 182 were MSC coaches and coaches-in-training who were taking other training courses and participated in the study, assisting the research team, but were excluded from the analysis.

The study took place at Renmin University in Beijing, China. It was approved by the Institutional Review Board of the Department of Psychology at Renmin University in Beijing, China.

Procedures

The online, live MSC program was offered by Beijing Haidian Happy Family Culture, a peer educational institution based in Beijing, China.

Online classes. The online classes were co-led by Christopher Germer, the co-designer of MSC, two members of the research team, and trained lecturers for the MSC program, and they all also served as the interpreters for the classes.

The protocol of the MSC program is detailed in Germer and Neff[26]; apart from the classes being taught in Chinese, the only adaptations to the protocol in the current study were the use of online peer-support WeChat groups in addition to the online classes.

Online peer-support WeChat groups. Participants were assigned to be members of small groups in Wechat. Each group had 20 to 30 participants, led by a group leader, a trained MSC teacher, who was assisted by 2 to 3 other MSC teachers or MSC teachers-in-training. Group leaders were in turn supervised and mentored by a Certified MSC Teacher, either individually or in a team of 3 or fewer during the program. In addition to being in WeChat small groups, all participants, coaches, assistant coaches, and MSC-program administrative staff formed a large WeChat group.

Outcome Measures. A research assistant emailed participants the links to the online questionnaires at baseline prior to commencing the intervention and postintervention in the week following the completion of the program. The research assistant was exposed only to participant numbers to ensure anonymization of the data.

For primary outcomes, self-report outcomes were obtained using the Self Compassion Scale (SCS)[20] and the Compassion for Others Scale (CS),[36] and for secondary outcomes, the study used the Depression, Anxiety, and Stress Scale (DASS-21),[37] the Fear of Compassion Scale (FOCS),[38] the Satisfaction with Life Scale (SWLS),[39] the Subjective Happiness Scale (SHS),[40] and the Cognitive and Affective Mindfulness Scale (CAMS-R).[41]

All measurement scales had been translated from English to Chinese by the research team in an earlier study on in-person MSC training,[27] and these translated scales were adopted for use in the current study.

The translation was performed by one member of the research team and a professional translator who spoke fluent Chinese and English. Only forward and no backward translation was used because it's considered to be the commonly preferred method for translations.[42] Translations

were then checked by two members of the study's research team to ensure consistency with the original meaning of the scale items. The translated scales weren't validated prior to use in the current study.

Intervention

MSC training. The online MSC program involved a two-hour group class each week for eight weeks using the Zoom videoconferencing platform, which can host up to 500 simultaneous participants. In addition to online MSC training, a half-day, face-to-face silent retreat occurred between weeks 6 and 7.

The retreat took place in Beijing, Zhengzhou, Qingdao, Chengdu, Xi'an, Guangzhou, Harbin, and Hangzhou to accommodate participants from those eight cities and their surrounding locations. It offered training in formal and informal meditation techniques as well as MSC practices. Participants shared and discussed their experience with meditation.

Broadly, each weekly class focused on different topics related to the cultivation of self-compassion, including developing foundational mindfulness skills, acquiring a compassionate inner voice, and working with difficult emotions. Classes involved conceptual and experiential learning, meditation, and psychoeducation.[26]

WeChat groups. In the online, small-group, video meetings, health coaches highlighted the learning points of the lecture for that week and led mediation practices. Participants interacted both in real-time and asynchronously, discussed homework assignments from the MSC manual, and shared their experiences in learning mindfulness and integrating self-compassion in their own lives.

In both the small and the large WeChat groups, participants freely posted questions and shared their thoughts and personal experience related to mindfulness and self-compassion. Administrative staff made announcements and sent encouraging words and phrases periodically to boost group morale in the large Wechat group.

Outcome Measures

SCS.[20] This scale was used to measure self-compassion. The scale asks respondents to rate their agreement with 26 statements, across the six dimensions of self-compassion defined by Neff (2003b)25: (1) self-kindness, (2) self-judgment, (3) common humanity, (4) isolation, (5) mindfulness, and (6) overidentification. Scoring was based on a five-point, Likert type scale, ranging from 1 (*almost never*) to 5 (*almost always*).

Self-compassion measured by SCS has been shown to significantly correlate with positive mental-health outcomes, such as less depression and anxiety and greater life satisfaction.[20] Other researchers have found support for a model in which the items in the six-subscale SCS were previously used in studies with Chinese participants.[26]

CS.[36] This 24-item scale was used to measure compassion for others along six dimensions: (1) kindness, (2) indifference, (3) common humanity, (4) separation, (5) mindfulness, and (6) disengagement. Respondents are asked to rate the frequency with which they respond to others in the manner stated, using a five-point Likert-type scale (1 = Not at all true, 2 = Rarely true, 3 = Sometimes true, 4 = Often true, 5 = Always true)

Cronbach's alpha and test-retest analyses all supported the conclusion that overall reliability for the CS is good, and reliability for the subscales was also generally adequate.[26,36]

DASS-21.[37] This 21-item scale was used to measure symptoms of psychological distress. This measure uses a four-point Likert-type response scale (0 = Did not apply to me at all, 1 = Applied to me to some degree, or some of the time, 2 = Applied to me to a considerable degree, or a good part of time, 3 = Applied to me very much, or most of the time) to measure the frequency with which respondents have experienced symptoms of depression, anxiety, and stress over the month prior to testing. The measure is sensitive to change in psychological distress symptoms over time, and adequate psychometric properties have been reported for the Chinese translation of the scale.[43]

FOCS.[38] A subscale of this scale was used to measure fear of self-compassion. This subscale containing 15 items measures common fears and concerns about feeling compassion for oneself, using a five-point, Likert-type response scale (0 = Don't agree at all, up to 4 = Completely agree). Fear of compassion for self has been found to be linked to fear of compassion from others, and both correlate with self-coldness, self-criticism, insecure attachment, and depression, anxiety, and stress.[38] The current study focused on fear of self-compassion, because the MSC program specifically targets that construct.

SWLS.[39] This scale is a short, five-item instrument designed to measure a person's global cognitive judgments of satisfaction with life. Participants are asked to indicate their agreement with each item by placing the appropriate number on the line preceding that item (7 = Strongly agree, 6 = Agree, 5 = Slightly agree, 4 = Neither agree nor disagree, 3 = Slightly disagree, 2 = Disagree, 1 = Strongly disagree). The scale usually requires only about one minute to respond. The SWLS has been shown to have favorable psychometric properties, including high internal consistency and high temporal reliability. Scores on the SWLS have correlated moderately to highly with other measures of subjective well-being and correlated predictably with specific personality characteristics.[39] It was modified and translated by Dr. Mantak Yuen, faculty of the University of Hong Kong in 2002.

SHS.[40] This four-item scale measures global subjective happiness. Two items ask respondents to characterize themselves using both absolute ratings and ratings relative to their peers, whereas the other two items offer brief descriptions of happy and unhappy individuals and ask respondents the extent to which each characterization describes them. Participates score themselves on each of the four questions using a Likert-type response scale (1 = not a very happy person, up to 7 = a very happy person).

CAMS-R.[41] This scale is a unidimensional, 12-item inventory that measures mindfulness during general daily occurrences using four components thought to be needed to reach a mindful state: attention, awareness, present-focus, and acceptance or nonjudgment. Participants are asked to rate how much each of these 12 items applies to them using a Likert-type response scale (1 = not at all, 2 = sometimes, 3 = often, 4 = almost always). Higher scores indicate higher levels of mindfulness qualities (reverse scoring for items 2,6,7).

Statistical Analyses

Statistical analyses were restricted to participants who attended the MSC program for the first time in the study and who didn't receive other mind-body or personal-growth training concurrently. To test for within-group changes in MSC participants on constructs believed to be impacted by the MSC training, the study used a fixed effects model, where the dependent variable was a scale's score of interest and the predictor of interest was time, with 0 = baseline and 1 = week 8.

Observations were modeled as nested within individuals, using an unstructured covariance matrix. A restricted, maximum-likelihood estimation was used, as implemented by the MIXED procedure, which fits a variety of mixed linear models to data, from SAS software, version 9.4 (SAS Campus Drive, Cary, NC, USA).

Because more than 5% of the participants had missing data at the eight-week assessment, the research team tested whether baseline variables were related to missing data and included significant predictors of the occurrence of missing data in the models. The research team didn't adjust for multiple testing because the analyses were exploratory.

RESULTS

Sample Description

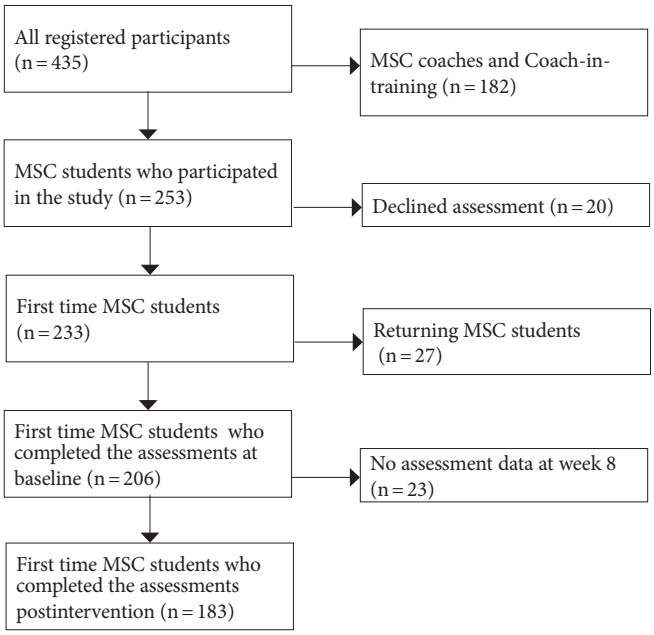
Of the 435 potential participants, the 253 who weren't MSC coaches or MSC trainees were included in the study, and of them, 233 were first-time MSC students (Figure 1). Of those 233 students, 206 completed the assessments at baseline.

Of the 206 participants, 179 (86.9%) attended six or more sessions, and 183 (88.8%) completed the assessments at baseline and postintervention. These 183 retained participants: (1) were more likely to be female, 97.8% for the completers compared to 73.9% for the noncompleters, with an odds ratio (OR) = 15.7 (95% CI: 4.1–61.5) and $P < .01$; (2) had significantly lower baseline scores on the SCS, indicating lower self-compassion with OR = 0.43 [0.24 to 0.79 nd $P < .01$; and (3) had significantly higher scores on all three subscales of the DASS: depression: OR = 1.25 [1.07 to 1.45], $P < .01$; anxiety: OR = 1.19 [1.01 to 1.40], $P = .03$; and stress: OR = 1.16 [1.01 to 1.33], $P = .04$.

Change Over Time

The study included all 206 first-time MSC participants in its longitudinal model. Because gender was a significant predictor of dropping out, the research team included gender as a covariate. Because baseline levels on outcome variables indicated significantly better functioning at baseline among those who dropped out, the research team also re-ran the models on data from those participants who completed the assessment postintervention only (n = 183), so as to describe the robustness of the findings with regard to different assumptions about the missing data.

Figure 1. Participant Flow Chart



The research team's hypotheses were supported. Participants showed significant changes in all scales in the expected direction (Table 2). Positive attributes and experiences increased, such as: (1) on the SCS subscales measuring self-kindness, common humanity, and mindfulness (all $P < .01$); (2) on the CS subscales measuring kindness ($P < .01$), common humanity ($P < .01$), and mindfulness ($P < .0001$); and (3) on the SWLS ($P < .01$), SHS ($P < .01$), and the CAMS-R ($P < .0001$). Negative attributes and experiences decreased, such as: (1) on the SCS subscales measuring self-judgement, isolation, and overidentification (all $P < .01$); (2) on the CS subscales measuring indifference ($P < .01$), separation ($P < .01$), and disengagement ($P < .0001$); (3) on the FOCS ($P < .0001$); and (4) on the DASS-21 subscales on depression, anxiety and stress (all $P < .01$).

Results weren't meaningfully impacted when the analyses were restricted to those participants who completed the postintervention assessment only.

DISCUSSION

In the current study, the pilot data from a Zoom-based, live, online MSC training for people residing in different parts of China showed promising outcomes, with changes in all scales moving in the expected direction.

Both an earlier study by Finlay-Jones et al[27] and the current study showed that MSC training for a Chinese

Table 1. Demographics of Participants Who Completed the Assessments Compared to Those Who Did Not

Demographics	Total n = 206 Mean ± SD n (%)	Noncompleters n = 23 Mean ± SD n (%)	Completers n = 183 Mean ± SD n (%)	*P* Value
Gender, % female	196 (95.2)	17 (73.9)	179 (97.8)	<.01
Age, mean ± SD	37.5 ± 7.9	34.5 ± 7.4	37.8 ± 7.9	.06
Education, %				.47
High school	11 (5.4)	0 (0.0)	11 (6.0)	
College	158 (76.7)	19 (82.6)	139 (76.0)	
Graduate school	37 (18.0)	4 (17.4)	33 (18.0)	
MSC characteristics				
First time join the MSC class, % yes	206 (100.0)	23 (100.0)	183 (100.0)	
Prior meditation experience, % yes	55 (26.7)	3 (13.0)	52 (28.4)	.12
If any, length of prior meditation				.00
0-3 months	43 (78.2)	0 (0.0)	43 (82.7)	
More than 3 months	12 (21.8)	3 (100.0)	9 (17.3)	
Baseline levels				
SCS total score	2.7 ± 0.7	3.0 ± 0.7	2.6 ± 0.7	.00
DASS depression	6.5 ± 3.6	4.4 ± 2.6	6.7 ± 3.6	.00
DASS anxiety	5.5 ± 3.2	4.2 ± 2.9	5.7 ± 3.3	.03
DASS stress	9.5 ± 3.5	8.0 ± 3.2	9.7 ± 3.5	.04

Table 2. Changes in Assessed Variables between Baseline and Postintervention for All Participants Compared to Those Who Completed Both Assessments

	Baseline			Postintervention	Change Over Time			Change Over Time		
					Total n = 206			Completed n = 183		
Outcome Measure	Total n = 206 Mean ± SD	Dropped Out n = 23 Mean ± SD	Completed n = 183 Mean ± SD	Completed n = 183 Mean ± SD	b	SE	*P* Value	b	SE	*P* Value
Self-Compassion (SCS)										
Total	2.7 ± 0.7	3.0 ± 0.7	2.6 ± 0.7	3.7 ± 0.6	1.06	(0.05)	<.01	1.08	(0.05)	<.01
Self-kindness	2.4 ± 0.8	2.8 ± 0.7	2.3 ± 0.8	3.6 ± 0.8	1.26	(0.06)	<.01	1.29	(0.06)	<.01
Self-judgment	3.1 ± 0.9	2.8 ± 0.8	3.2 ± 0.8	2.2 ± 0.7	-0.99	(0.06)	<.01	-1.01	(0.06)	<.01
Humanity	2.6 ± 0.8	2.8 ± 0.6	2.6 ± 0.8	3.6 ± 0.8	1.06	(0.06)	<.01	1.07	(0.07)	<.01
Isolation	3.0 ±1.0	2.5 ± 1.1	3.1 ± 1.0	2.1 ± 0.7	-0.91	(0.06)	<.01	-0.93	(0.06)	<.01
Mindfulness	2.5 ± 0.8	2.9 ± 0.8	2.4 ± 0.8	3.6 ± 0.8	1.11	(0.05)	<.01	1.13	(0.06)	<.01
Overidentification	3.4 ± 0.9	3.0 ± 1.0	3.5 ± 0.9	2.4 ± 0.7	-1.01	(0.05)	<.01	-1.03	(0.06)	<.01
DASS-21										
Depression	6.5 ± 3.6	4.4 ± 2.6	4.2 ± 3.1	4.2 ± 3.1	-2.39	(0.23)	<.01	-2.49	(0.23)	<.01
Anxiety	5.5 ± 3.2	4.2 ± 2.9	5.7 ± 3.3	3.9 ± 2.9	-1.74	(0.20)	<.01	-1.78	(0.20)	<.01
Stress	9.5 ± 3.5	8.0 ± 3.2	9.7 ± 3.5	6.7 ± 3.2	-2.91	(0.21)	<.01	-2.96	(0.21)	<.01
Satisfaction with life (SWLS)	3.2 ± 1.4	3.4 ± 1.1	3.2 ± (-1.4)	4.5 ± 1.4	1.34	(0.10)	<.01	1.35	(0.10)	<.01
Subjective Happiness (SHS)	3.7 ± 1.2	4.3 ± 1.2	3.7 ± 1.2	4.7 ± 1.2	0.98	(0.07)	<.01	1.01	(0.08)	<.01
Compassion for Others (CS)										
Total Score	3.7 ± 0.5	3.8 ± 0.5	3.8 ± 0.5	4 ± 0.5	0.31	(0.03)	<.01	0.3	(0.03)	<.01
Kindness	3.8 ± 0.8	0.8 ± 0.8	3.7 ± 0.8	4 ± 0.7	0.28	(0.05)	<.01	0.28	(0.05)	<.01
Indifference	2.5 ± 0.7	2.4 ± (-0.8)	2.5 ± 0.7	2.3 ± 0.6	-0.23	(0.05)	<.01	-0.23	(0.05)	<.01
Common humanity	3.9 ± 0.8	4.1 ± 0.6	3.9 ± 0.8	4.4 ± 0.7	0.49	(0.06)	<.01	0.5	(0.06)	<.01
Separation	2.2 ± 0.8	2.2 ± 0.8	2.2 ± 0.8	1.9 ± 0.7	-0.35	(0.06)	<.01	-0.35	(0.06)	<.01
Mindfulness	3.6 ± 0.6	3.6 ± 0.6	3.6 ± 0.6	3.8 ± 0.6	0.22	(0.05)	<.0001	0.2	(0.01)	<.0001
Disengagement	2.5 ± 0.7	2.4 ± 0.8	2.5 ± 0.7	2.2 ± 0.6	-0.25	(0.05)	<.0001	-0.26	(0.05)	<.0001
Cognitive, Affective Mindfulness (CAMS-R)	2.4 ± 0.5	2.7 ± 0.5	2.3 ± 0.5	2.8 ± 0.5	0.4	(0.03)	<.0001	0.41	(0.03)	<.0001
Fear of Self-compassion (FOCS)	2.1 ± 0.7	2.3 ± 0.9	2.1 ± 0.7	1.6 ± 0.6	-0.54	(0.04)	<.0001	-0.52	(0.05)	<.0001

community sample led to increased self-compassion and compassion for others, improved feelings of well-being, and decreased psychological distress. In addition, the current study has provided preliminary evidence on the effectiveness of offering MSC training in an online format. The examination of personal characteristics, such as age, gender, and experience of prior meditation practice, as predictors of outcomes for online MSC training, is beyond the scope of this article.

Criticisms of online education do exist. One is that it excludes people without access to internet communications. In addition, students attending online programs need to be self-motivated and well organized because they are more likely to be distracted; background noise, a lack of private space, and limited protected time due to other responsibilities all pose potential challenges. Concerns also exist about the lack of physical presence and face-to-face interactions because these could affect the formation of a supportive learning community.

One of the strengths of the current online MSC training program is that it supplemented the online classes with an elaborate, online, peer-support system. With this peer-support system, it was possible to efficiently provide MSC training simultaneously to more than 300 participants while still maintaining a student-centered approach that provided participants individualized attention, fostered accountability, and created opportunities for dialogue and mutual learning.

In addition, an online peer-support group creates opportunities for shared catharsis, imparting of information, altruism, and group cohesiveness, which are important psychotherapeutic elements. The significant improvement in the current study in participants' anxiety, depression, and stress suggests that an MSC program with an online peer-support group may have therapeutic value in addition to its function as an educational tool. It's possible that this training program and online peer-support model could be used for prevention, treatment, or relapse prevention for people with mood and anxiety disorders.

The high participation rate and assessment completion rate are indications of the success of the current study's program. Higher assessment-completion rates were associated with being female and with having lower self-compassion and scoring higher in anxiety, depression, or stress at baseline. It's possible that these individuals had higher levels of distress and benefited more from the therapeutic effects offered by this program.

One interesting observation about this MSC Program is that 95.2% of the participants originally included in the study were female. The reason for a high gender imbalance is unknown. It may indicate that females in China are more interested in receiving education for personal growth. It's also possible that females in present-day China are under remarkable stress; while expected to excel at work, they also shoulder the burden of household responsibilities. This disproportional burden may have created a commensurate need for emotional support while resources for psychological counseling are limited in China.[44] In-depth discussion of the effects of rapid economic and societal changes on the mental well-being of Chinese people, particularly Chinese females, and the resources for self-management or professional, behavioral health intervention is beyond the scope of this manuscript.

The research team would like to acknowledge the limitations of the current study. First, the study population was a community sample recruited through advertisements for the online MSC program. With the basic demographic data obtained from the participants, it's not possible to depict the population in a more detailed and precise manner. They are likely to be a diverse group of people with different backgrounds and varying motivations and capacity to learn MSC.

Second, the study was not a controlled one, and no causal relationship can be established based on its outcomes.

Third, the mechanisms of the positive outcomes are unclear. The changes could be a result of a well-designed training curriculum, charismatic instructors and their online lectures, the in-person retreat, cohesive peer relationships, interactions with participants who had former MSC training, supportive coaches, or social desirability factors.

Fourth, it's unclear whether a real-life impact occurred based on self-reported increases in compassion, self-compassion, and well-being.

Fifth, follow-up data was lacking that could determine whether the improvements in compassion and well-being were sustained over time.

Lastly, the studied population included predominantly well-educated females who were computer literate, had access to broadband, and possessed additional resources that made it feasible to take part in this online training program. Their outcomes may not be generalizable to other populations in China.

CONCLUSIONS

With the increasing availability of high-speed internet access, computers, communication electronics, and new videoconferencing technology, online MSC training can be provided in China. The current study showed the high adherence rate for the Chinese individuals taking the online MSC training supported by peer learning groups. The preliminary outcomes from the current study suggest that future studies with more rigorous designs are warranted to confirm that live, online training with peer support is an effective and efficient approach to disseminate MSC training in China.

AUTHORS' DISCLOSURE STATEMENT

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