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Abstract

Background: Mindfulness-based cognitive therapy (MBCT) is an effective group intervention for reducing rates of depression relapse. However, about one-third of graduates experience relapse within 1 year of completing the course.
Objective: The current study aimed to explore the need and strategies for additional support following the MBCT course.
Methods: We conducted 4 focus groups via videoconferencing, two with MBCT graduates (n = 9 in each group) and two with MBCT teachers (n = 9; n = 7). We explored participants' perceived need for and interest in MBCT programming beyond the core program and ways to optimize the long-term benefits of MBCT. We conducted thematic content analysis to identify patterns in transcribed focus group sessions. Through an iterative process, multiple researchers developed a codebook, independently coded the transcripts, and derived themes.
Results: Participants said the MBCT course is highly valued and was, for some, "life changing." Participants also described challenges with maintaining MBCT practices and sustaining benefits after the course despite using a range of approaches (ie, community and alumni-based meditation groups, mobile applications, taking the MBCT course a second time) to maintain mindfulness and meditative practice. One participant described finishing the MBCT course as feeling like "falling off a cliff." Both MBCT graduates and teachers were enthusiastic about the prospect of additional support following MBCT in the form of a maintenance program.
Conclusion: Some MBCT graduates experienced difficulty maintaining practice of the skills they learned in the course. This is not surprising given that maintained behavior change is challenging and difficulty sustaining mindfulness practice after a mindfulness-based intervention is not specific to MBCT. Participants shared that additional support following the MBCT program is desired. Therefore, creating an MBCT maintenance program may help MBCT graduates maintain practice and sustain benefits longer-term, thereby decreasing risk for depression relapse

Keywords

depression relapse, mindfulness-based cognitive therapy, maintenance program

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Introduction

Depression is one of the top five causes of disability-adjusted years of life lost.[1] The impact of depression is great because the condition is common and has substantial detrimental effects on multiple levels. The prevalence of a major depressive episode in U.S. adults in 2020 was 8.4% of all adults, or 21.0 million individuals.[2] For the individual, depression has a negative effect on quality-of-life domains[3] and is linked to poor health outcomes, in part because of its detrimental effect on health behaviors. Another reason that major depression is such a significant health issue is that the risk of relapse is high. Approximately 60% of people who experience an initial episode of unipolar major depression experience another episode within 5 years, and the risk of relapse increases to 80% or more in people with a prior history of more than two episodes,[4] making prevention of relapse a critical issue.

Mindfulness-based cognitive therapy (MBCT) was specifically designed to address depression relapse. It combines approaches from cognitive-behavioral therapy (CBT) and the mindfulness-based stress reduction (MBSR) program but is tailored for prevention of depression relapse and is typically administered following completion of initial treatment of depression. Like MBSR, MBCT is delivered over 8 weeks in a group setting, and teaches a variety of formal practices, including sitting meditation, body scan, and mindful movement, as well as informal practices to be used during daily life. Similar to CBT, MBCT aims to help individuals disengage from self-criticism and rumination that can arise during period of stress, and which can contribute to depression relapse.

A robust research base now exists establishing MBCT as efficacious in preventing depression relapse after initial treatment for depression. A meta-analysis combining data from nine randomized controlled trials has shown a greater than 30% reduction in the rate of depression relapse compared to non-MBCT comparison groups and a reduction of 23% compared to groups of participants continuing anti-depressant medication.[5] Based on these data, MBCT is now part of standard care for depression treatment in the United Kingdom National Health Service and has been recognized as an Empirically Supported Treatment by Division 12 of the American Psychological Association.[6] In addition to preventing depression relapse, there is evidence of other benefits from MBCT. For example, in a randomized, controlled trial of MBCT for treatment resistant depression, MBCT decreased depression severity and improved treatment response rates.[7]

Although this evidence indicates that MBCT is one of the best proven non-pharmacologic approaches to preventing depression relapse, important gaps remain in our knowledge of MBCT. For instance, approximately one-third of MBCT graduates with a prior history of multiple depressive episodes experience a depression relapse within 1 year of completing MBCT.[5] This is problematic given that the aim of MBCT is long-term prevention of depression relapse and suggests that additional elements beyond the 8-week course may be warranted. There is little research on how to maintain the benefits of MBCT after its completion. As such, the current study aimed to explore the perspectives of MBCT graduates and teachers on optimizing the long-term benefits of MBCT, including perceived needs following MBCT, barriers to the maintenance of MBCT benefits, and feedback on a proposed MBCT maintenance program.

Methods

The study protocol was approved by the Institutional Review Board (#19-27614) at the University of California, San Francisco (UCSF).

Participants

We recruited and enrolled MBCT graduates and teachers using pre-existing email lists, online groups, and newsletters. Graduates were recruited using an email list of approximately 250 individuals who participated in MBCT at UCSF or Vanderbilt University. Teachers were recruited using study advertisements distributed via four sources: an email list of approximately 90 MBCT instructors affiliated with either UCSF or Vanderbilt; an MBCT Facebook page with over 2500 followers, many of whom are MBCT instructors; an Oxford Mindfulness Centre newsletter; and an e-newsletter from the Centre for Mindfulness Research and Practice at Bangor University targeted at MBCT instructors. As a result of this outreach, a total of 38 graduates and 41 instructors indicated interest and completed a survey to provide their availability for focus group sessions. All participants provided written informed consent.

Prior to recruitment, we determined the ideal focus group size to be 8-10, resulting in a total enrollment target of 16-20 graduates and teachers, respectively. MBCT graduate participants were eligible if they completed the MBCT course. Teacher participants were eligible if they were trained in delivering MBCT courses and had taught at least one 8-week course. From the pool of respondents who were interested and available during the dates and times the sessions were scheduled, we created tentative groupings for each session with the aim of obtaining diverse representation with respect to age, gender, race/ethnicity, income, and education. Given that we could not include all interested respondents in the focus groups, we also considered whether graduates had repeated the MBCT course, whether they had experienced a depression relapse, what their level of satisfaction with MBCT was, and how often they were currently meditating. We aimed to create groups of graduates with a range of satisfaction

levels with MBCT, history of depression relapse, and continued meditation practice. For teachers, we also considered geographic location as well as length and depth of experience teaching MBCT.

Data Collection

Participants provided demographic data and information about their experience with MBCT by completing an online survey. We conducted four focus groups online using videoconferencing (Zoom). Two focus groups were conducted with MBCT graduates (n = 9 in each group), and two focus groups were conducted with MBCT teachers (n = 9 and n = 7). Each focus group met for one 90-minute session.

Interview Outline

A moderator's guide was drafted by two members of the research team (FH and SA) and reviewed and refined with input from the whole research team, which included expert MBCT teachers (ZS, WK, and SE). The moderator's guide prompted for and explored the following topics: strategies that have been successful for maintaining practices and sustaining benefits of MBCT following a course; the most significant barriers to maintaining practices following an MBCT course; and acceptability and best implementation of potential MBCT maintenance program approaches. We included questions about four proposed maintenance components: (1) booster modules (content that refreshes and augments MBCT skills and practices); (2) reoccurring, online drop-in meditation group sessions; (3) text messages and questionnaires to monitor participant status and provide reminders and encouragement; and (4) building an online community of practice. The full moderator's guide appears in Table 1. Focus groups were moderated by one of the research team members (SA) who is trained in medical anthropology and has extensive experience with focus groups and qualitative data methods.

Data Analysis

Recordings of the focus group were transcribed verbatim. We first developed a system (a codebook) of conceptual categories or labels for sections of the text (codes) based on the data. In doing so, four investigators (SA, FH, PM, and CS) read each of the four transcripts and generated an initial list of key concepts/codes. All four investigators met over several sessions to collaboratively and iteratively refine the codebook and create definitions of codes based on patterns in the data. Once the codebook was established, each interview was independently coded by two of the researchers using Dedoose (version 7.0.23).[8] The four investigators (coders) met to identify and resolve coding disagreements through team discussion. Once consensus on how to apply the codes was achieved and coding was complete, transcripts were reviewed to identify themes through group discussion and input from the entire research team.

Results

Study Population

We recruited and enrolled 18 MBCT graduates and 16 MBCT teachers (described in Table 2). In the following sections, we use the term "participants" to refer to both MBCT graduates and teachers, whereas views expressed only by graduates or teachers will be specified as such. Use of the term "practice" refers to mindfulness-based practices.

Themes

Themes and illustrative quotes are summarized in Table 3. (1) The MBCT course is highly valued. Graduates of MBCT found MBCT to be tremendously meaningful and, for some, "life changing." As the program intends, participants found a primary benefit of MBCT to be improving depression and overall mental health. One MBCT graduate said, "There were strategies within the group and through the course that stuck with me and helped me get through it, and I have never been as depressed as I was when I started, so that is a win." Another MBCT graduate shared, "I have had bouts of depression, but not as severe as before I took the course. It definitely changed the way I use my mind and view depression." Participants described improvement in depressogenic thoughts (ie, rumination, focus on the past, and interpretation of situations in an overly personal and self-critical manner), and some graduates explained that MBCT practices and skills also helped them cope with anxiety, grief, and sequelae of traumatic experiences.

Participants said these benefits were realized through engaging in practices learned in MBCT, which translated into important skills, including present-moment focus, responding vs reacting, adopting a beginner's mind, letting go, acceptance, cognitive reframing, meta-cognition, self-compassion, and increased self-confidence/-efficacy. MBCT graduates identified the body scan, breathing practices, and cognitive reframing as practices that improved their awareness and ability to manage stress and difficult emotions (eg, anger and anxiety). The body scan was particularly popular among graduates, who described it as the most maintained practice after the conclusion of the MBCT program, "because it is just more concrete." Learning to increase present-moment focus was described as a "life advantage." One MBCT graduate explained, "It has helped me to be in the present and not to be looking back and constantly thinking of past events that upset me." Realizing that "thoughts are not facts" and learning "not to take things personally" were particularly powerful takeaways for many MBCT graduates as well. MBCT teachers noted one of the most valuable skills graduates gained was

Table 1. Focus Group Interview Prompts.

Question	Probe
MBCT graduates	
1. What benefits have you gotten from taking the MBCT course?	a. What practices were most helpful from MBCT? b. What skills did you learn that most helpful from MBCT?
2. What has helped you maintain the benefits gained in MBCT after the 8-week course was complete?	a. How well have you been able to maintain practices that were useful? b. How well have you been able to maintain skills you may have learned—like noticing your thoughts without getting caught up in them?
3. What are the key challenges you've faced in maintaining the benefits you have gotten from the course?	a. What challenges have you had in maintaining practices and skills you learned?
4. Would a course to refresh and build on the initial MBCT course be helpful?	a. What do you think of having this as a video conference vs in-person? b. How many sessions might you want for a course? i. What would you think of having 4-weekly sessions compared to something shorter or longer? c. What do you think of having a weekend day vs a weekly session? d. How often would be interested in this? i. Once a year, twice a year? e. Are there particular topics you would be interested in covering? i. If you had to choose, which would be your top 3 choices?
5. Would you like more support for an ongoing community to keep you connected to other people who have taken MBCT?	a. Would an online forum that kept you connected and shared best practices be something you think you would engage in?
6. How interested would you be in a monthly alumni group meeting after the 8-week MBCT course?	a. Have you tried an alumni group? i. If so, how has it worked? If not, has this been available? If yes, what are some of the reasons you haven't attended? b. How would it work to have this done by video platform (eg, Zoom)?
7. Would it be helpful to receive text messages or emails with more suggestions and reminders to maintain practices from MBCT?	a. How would this work best?
8. Would it work to take brief surveys to check in on how you are doing, with some extra help if you are showing new signs of depression?	
9. What other suggestions do you have for maintaining benefits gained in MBCT?	
10. Is there anything I haven't asked you about that you think is relevant to our discussion today?	
MBCT teachers	
1. What do you think are some of the key challenges that participants face in maintaining the practices that they learn in MBCT courses?	
2. What ideas do you have to encourage an ongoing community to keep participants connected and practicing together following a course?	
3. What do you think about follow up video conferences or maintenance group meetings after the 8-week MBCT course?	a. Would this be helpful? i. Why or why not? ii. How would you like these structured?
4. How would you feel about individual check ins with past participants to review their practices?	
5. What are your thoughts on other check in processes such as regular offerings of depression screening tools to help identify those who may be at higher risk of relapse?	a. Those who are identified then would receive more follow-up. What could this follow up look like?
6. What are your thoughts on sending text messages or other digital reminders to participants to help them maintain practices?	

MBCT: Mindfulness-based cognitive therapy.

Table 2. Sample Demographics (N = 34).

	n (% of subgroup)	
	Teachers (n = 16)	Graduates (n = 18)
Age		
35-44	1 (6.3)	1 (5.6)
45-54	7 (43.8)	6 (33.3)
55-64	7 (43.8)	7 (38.9)
65-74	1 (6.3)	4 (22.2)
Sex		
Male	5 (31.3)	3 (16.7)
Female	11 (68.8)	15 (83.3)
Education		
Mindfulness certification	3 (18.8)	0 (0)
Associate degree	0 (0)	2 (11.)
Bachelor's degree	2 (12.5)	8 (44.4)
Master's degree	5 (31.5)	8 (44.4)
Doctorate/Professional degree	6 (37.5)	0 (0)
Graduates		
Race and ethnicity		
Asian		0 (0)
Black		1 (5.6)
Hispanic		1 (5.6)
Non-Hispanic White		16 (88.9)
Other (not specified)		1 (5.6)
Annual household income		
≥ $24,000		1 (5.6)
$25 000-49 999		1 (5.6)
$50 000-74 999		4 (22.2)
$75 000-99 000		2 (11.1)
$100 000-149 000		4 (22.2)
≤ $150 000		5 (27.8)
[a]		1 (5.6)
Number of times taken MBCT		
Once		8 (44.4)
Twice		10 (55.6)
Years since taking MBCT (*M*, (*SD*)[b]		*6.28* (*3.7*)
Overall satisfaction with MBCT (*M*, (*SD*)[c]		*8.4* (*1.5*)
Self-report depression relapse since MBCT		
Yes		11 (61.1)
No		7 (38.9)
Teacher		
Geographic location		
Europe	12 (75.0)	
North America	2 (12.5)	
Asia	1 (6.3)	
Africa	1 (6.3)	
Years taught		
1-2	3 (18.8)	
3-5	7 (43.8)	
6-10	5 (31.3)	
≥15	1 (6.3)	
Years since last taught (*M*, *SD*)	*2.3 (.7)*	
Maintenance strategy offered after MBCT		

(continued)

Table 2. (continued)

	n (% of subgroup)	
	Teachers (n = 16)	Graduates (n = 18)
Alumni class	8 (50.0)	
Continuation class	2 (12.5)	
Other	3 (18.8)	
None	2 (12.5)	
[a]	1 (6.3)	
Courses taught		
MBCT only	8 (50.0)	
MBCT, MBSR	3 (18.8)	
MBCT, MSC	1 (6.3)	
MBCT, MBSR, other	4 (25.0)	

MBCT: Mindfulness-based cognitive therapy; MBSR: Mindfulness-based stress reduction; MSC: Mindfulness Self-Compassion.
[a]Denotes missing data.
[b]Three students reported taking MBCT prior to 2010 but the year was not specified. Their responses were approximated at taking MBCT in 2010.
[c]On a scale of 1-10 with 1 representing "completely unsatisfied" and 10 representing "completely satisfied."

Table 3. Themes and Illustrative Quotes.

Theme	Quote
1. The MBCT course is highly valued	"I have had bouts of depression, but not as severe as before I took the course. It definitely changed the way I use my mind and view depression."
	"The thing that sticks out the most to me is doing that work as kind of a community, as being there with other people was really powerful for me."
2. Many graduates face challenges in sustaining the benefits of MBCT.	"Things did not stick necessarily, so if you got a major stressor, it was not an instinct yet. It was not part of your marrow of how to react. It was still a baby learned response. You had not really internalized it, so it was easy to go back to the old way of reacting to things."
	"I did not really want the class to end because I felt like I was doing so well, and then it ended, and I was left on my own. That was a little scary, to put those into practices by myself. I Think that is the challenge, ending the class and going off on your own."
3. Most graduates expressed a need for additional support beyond the conclusion of MBCT and were enthusiastic about the idea of a maintenance program	"I was very frustrated after the group… I was introduced to meditation but there was a lot more I needed to learn… My recommendation, or what I learned for myself, is that there needs to be a much deeper understanding of meditation."
	"I learned those things, but I forgot them, so I think that having some kind of support or some kind of consistency is the only way, for me at least, for it to work."

MBCT: Mindfulness-based cognitive therapy.

learning to adopt a curious attitude toward difficulties, since it reduces aversion and allowed them to develop a new relationship with stressors (ie, no longer "pushing away difficulties"). MBCT teachers also said learning to accept mood changes without reacting as strongly to them is another valuable skill, because it helps graduates cope with difficult experiences, including the COVID-19 pandemic. Participants shared that the MBCT program helps graduates with self-confidence/-efficacy. One MBCT teacher said, "The feedback I find that comes up the most is being grateful they have specific skills they know how to use when they first start to feel down again; they do not have to wing it." Similarly, an MBCT graduate shared, "I became much more confident knowing how to get through it," and another graduate said, "Doing the daily meditation practices, even when I did not know what I was doing, showed me there were resources within myself I was unaware of."

A strong sense of community, group support, belonging, and accountability were other stated benefits of MBCT. One MBCT graduate explained, "The thing that sticks out the

most to me is doing that work as kind of a community, as being there with other people was really powerful for me." Participants said both accountability and being connected to a space where meditation is accepted and normative was important. Although mindfulness-based practices and interventions are becoming more popular, participants noted there are still judgments toward mindfulness, and one said that it was helpful to know, "I am not alone in working on my issues and using meditation and mindfulness practices." Without continued access to these inherent group benefits following the conclusion of the MBCT course, some MBCT graduates reported they maintained an on-going meditation practice, whereas others reported they struggled to do so. On the survey, MBCT graduates reported engaging in a mean of 3.61 (SD = 2.66) days of formal mindfulness practice (eg, sitting meditation, body scan) and a mean of 4.28 (SD = 2.65) days of informal mindfulness practice (eg, mindful eating, mindfully washing dishes) per week. Four MBCT graduates reported they did not engage in formal mindfulness practice and two graduates reported they did not engage in informal mindfulness practice. (2) Despite these encouraging self-reported rates of maintained mindfulness meditation practice following the MBCT program, many graduates face challenges in sustaining the benefits of MBCT. The difficulties that participants described fall into two broad categories: limitations of the structure of the MBCT program and practical barriers to maintaining practice after the MBCT course.

Participants said the MBCT course itself is highly structured and provides substantial support; however, the conclusion of the program is perceived as abrupt with minimal support to facilitate transitioning out of the program. One teacher described ending the MBCT course as feeling like "falling off of a cliff." They explained, "At the end of the 8 weeks, participants are just starting to learn about this, really" and suggested that, for some, 8 weeks is not a sufficient length of time to learn new skills, build a practice, and integrate a sustainable practice into everyday life. Another MBCT teacher echoed the conviction that the transition from a highly structured course to self-directed maintenance "is a real challenge for people." An MBCT graduate shared, "I did not really want the class to end because I felt like I was doing so well, and then it ended, and I was left on my own. That was a little scary, to put those into practices by myself. I think that is the challenge, ending the class and going off on your own." Both MBCT graduates and teachers commented on a general fading away of some benefits, which one graduate explained as, "Things did not stick necessarily, so if you got a major stressor…it was not an instinct yet. It was not part of your marrow of how to react. It was still a baby learned response. You had not really internalized it, so it was easy to go back to the old way of reacting to things." Another MBCT graduate suggested, "Maybe if the classes were longer…it would become more ingrained in ourselves, because I did feel at the end of that class that it became like a second nature, which did not last."

Participants described other challenges to maintaining practice and benefits. The most commonly reported issues were lack of time, "depression itself," and stressful life events. One MBCT graduate explained, "Doing the practices while being deeply depressed.…I cannot imagine a bigger challenge that I have run across in terms of developing my practice." Many MBCT graduates said specific symptoms of depression, including lack of motivation, forgetfulness, and difficulty with concentration, get in the way of maintaining practice. MBCT graduates said comorbid psychological conditions can also serve as barriers, such that a calm, meditative state can activate anxiety and painful memories. One MBCT graduate shared, "I almost had to quit, it was almost too painful for me to continue the practice, but I have worked myself through that." Others described barriers including lack of childcare coverage, fatigue, lack of physical space, poor health, meditation itself being challenging, and meditation length. One MBCT graduate described this challenge as, "I try not to put too much pressure on myself and sort of with my goals do everything in small increments. . .It is ok to do something for 10 or 15 minutes, not a full hour," suggesting that an expectation to engage in long meditations can become a barrier. Several MBCT graduates and a few teachers also stated lack of routine as a common pitfall. One graduate shared the importance of scheduling time to meditate regularly, "instead of grabbing some time here or there."

Lastly, participants, especially teachers, said expectations at the start of the MBCT program can be a barrier to continued practice, since most graduates begin the MBCT program mentally committing to an 8-week course, rather than a long-term lifestyle change. One MBCT teacher explained, "People saw it as being temporary. It was something they could commit to for 8 weeks, and then the challenge is what to do after." Therefore, teachers noted the importance of "making it so clear from day 1 that it is not just an 8-week course. The intention is to develop a daily practice that is embedded into life by the end of the course." Taken altogether, the MBCT program is efficacious in managing depression, teaches practices that become generalizable life skills, and is highly valued by graduates and teachers alike. Many MBCT graduates, though, shared they struggle to maintain practice and sustain benefit long-term.

(3) Most graduates expressed a need for additional support beyond the conclusion of MBCT and were enthusiastic about the idea of a maintenance program. While participants described some MBCT graduate success in maintaining practice and benefit, they also described limitations to the currently available approaches to doing so (ie, partaking in community- and alumni-based "sits" and retreats). Some MBCT graduates explained that a major limitation to the community-based meditation groups is a lack of focus on depression: "There was not much support and education for depression, and the bottom line is that is what is really needed." MBCT graduates expressed hesitation about attending community programs, for example, "I have never gone because they are not my

people. These are my people." Despite a stated interest in MBCT-based alumni groups, participants acknowledged that, in their experience, these groups have low attendance. One MBCT graduate estimated that 3-6 people typically attended their alumni group, and an MBCT teacher said, "I am always struck by how few people from the hundreds that have been through actually attend." One MBCT graduate explained that an obstacle to regular attendance at community and alumni groups is that people that are depressed have a hard time coming out when they are depressed."

Other strategies for maintaining practices that MBCT graduates mentioned included "digging out notes" from their MBCT course, hiring a meditation coach, using smart phone applications (eg, Insight Timer), and maintaining connection with others from their MBCT cohort, given that participants said practice was easier to maintain with social support. MBCT teachers agreed that "if you want to carry on getting the benefits, you need to carry on practicing." Although both MBCT graduates and teachers mentioned available and accessible ways to maintain practice, over half of the MBCT graduates (n = 10; 55.6%) said they took the MBCT course a second time. One graduate explained, "I was very frustrated after the group… I was introduced to meditation but there was a lot more I needed to learn… My recommendation, or what I learned for myself, is that there needs to be a much deeper understanding of meditation. It goes beyond the class." After taking MBCT for the second time, one graduate explained, "I learned those things, but I forgot them, so I think that having some kind of support or some kind of consistency is the only way, for me at least, for it to work," suggesting some graduates may need greater structured, programmatic support following the core 8-week MBCT course.

Participants were enthusiastic about the idea of a maintenance program and expressed varied opinions about the format, length, method of delivery, and content. MBCT teachers emphasized the need to incorporate support for on-going meditation practice into the maintenance booster sessions, whereas MBCT graduates emphasized the importance of preserving a focus on managing depression, not just meditation. Teachers also recommended incorporating opportunities for graduate inquiry and group discussion about practical solutions to barriers to formal and informal meditation practice, since they felt lack of dialogue surrounding challenges to be another shortcoming of community-based meditation groups.

Some MBCT teachers favored creating a 4-to-6-week consolidated booster course (with a clear beginning and end) to establish a cohort and reduce drop out, while another teacher and a graduate suggested structuring the program to run continuously, with rotating topics to allow for on-going enrollment. While rolling enrollment allows for greater flexibility in timing of starting the program, the drawback is that a cohesive cohort is not established. As for frequency, one MBCT teacher recommended offering a session once per month. Another teacher said, "It needs to be quite regular and close to each other, at least in the beginning," to build a sense of community, and proposed using a tapered schedule (ie, begin by meeting once per week, followed by once every other week), to provide a gradual reduction in structured support. This idea was popular among teachers because it was viewed as a solution to graduates feeling as if they are "falling off a cliff" at the end of the program. There was variation in MBCT graduates' preference; some requested longer sessions less frequently (monthly), while others stated a preference for shorter sessions that occur more frequently (eg, one-hour weekly sessions).

Initially, most teachers recommended reviewing all the core content of the MBCT program during the booster sessions. One MBCT teacher suggested modifying the content of the maintenance course based on the length of time since graduates had completed the core MBCT course, since graduates who took the course more recently may benefit most from deepening their practice, while graduates who completed the core MBCT course years prior may benefit from a comprehensive review of the material. As such, one MBCT teacher suggested implementing a flexible curriculum to be determined by an experienced instructor given that "people may be in all sorts of very, very different places, and it would be a shame to miss the kind of richness of their experience, to really meet them where they are." When presented with the core components of MBCT and asked which three are the most important to review during the maintenance program, MBCT graduates voted for: (1) seeing thoughts as mental events instead of facts; (2) becoming familiar with patterns of thinking; and (3) practicing self-compassion. Some graduates requested homework between booster sessions to increase accountability and engagement.

Participants provided mixed responses to preference for videoconference vs in-person sessions. The stated advantages of videoconferencing included convenience, reduction in barriers (ie, travel, parking, busy schedule, being physically uncomfortable), broader reach (more people able to participate), potential for establishing a new relationship with the home environment, and the potential to meet people that would otherwise not be possible if it was restricted to local community. Stated disadvantages included lack of "personal touch," lack of connection, perceived awkwardness of online meditation as a group, concern for appropriateness of home environment (ie, distraction, may not be as relaxing), and screen fatigue given that many of our interactions are occurring virtually as a result of the COVID-19 pandemic. Some MBCT graduates explained that it would not be possible to engage in the maintenance program if it was not offered virtually because of their physical location and other graduates said delivery via videoconferencing is "better than nothing," but not preferred. The primary reason MBCT teachers and graduates gave for the desire to meet in person was a concern that the experience would not be the same when meeting via videoconferencing. One MBCT teacher explained, "You are never going to get anything as powerful as that face-to-face contact," and an MBCT graduate noted that Zoom

meditation classes are not as effective because "you do not get the mojo." Some teachers shared that, despite an initial reluctance regarding virtual groups, they were able to achieve a sense of community virtually. Taken together, most participants expressed an initial reluctance toward virtual delivery, but most agreed the benefits outweigh the disadvantages.

To supplement the booster module sessions, ongoing, virtual, drop-in meditation groups, an online community forum for the exchange of information (eg, videos, upcoming events, books, referrals), and use of text messages and/or questionnaires to assess individual needs were proposed. Most participants were in favor of all three, and while there was shared consensus between MBCT graduates and teachers regarding some approaches, there were also differing opinions. Both MBCT graduates and teachers agreed that dedicating time for both meditative practice as well as group discussion during the drop-in groups would be helpful. One graduate suggested, "Do a 10-minute meditation all together and then spend the rest of the time talking about our experience. I feel like I would get more out of that than just straight meditation on a Zoom call." Most participants also expressed a strong preference for the drop-in meditation groups and the community forum to be guided by a trained professional. One MBCT graduate explained, "I worry about these communities being an opportunity for people to commiserate, so unless there is a leader, some of these community sessions could end up everyone complaining." Some teachers said they are already using platforms (eg, WhatsApp) to provide MBCT graduates with practice reminders and other mindfulness-based content, which have been well-received because it promotes connection, exchange of information, encouragement, and empower community; graduates agreed, stating a preference for something "short and useful." Alternatively, instead of using platforms with two-way group communication functions, some participants were in favor of MBCT teachers distributing information (eg, meditation techniques, new research, resources, and "helpful hints") to graduates using one-way communication via an email or text message listserv, newsletter, or website.

Most participants were also in favor of including a mechanism for individual check-in during the maintenance program, although many MBCT graduates were strongly opposed to completing questionnaires, explaining, "It is so impersonal. Those scales drive me nuts. I do not like them," and "I would give myself maybe a 60% chance of actually doing it," whereas MBCT teachers were in favor of administering questionnaires. One MBCT graduate proposed individual phone calls to check-in instead of questionnaires, explaining, "It means so much. Much better than a text message or an email, just a voice on the other line, especially when you have depression. I think that simple extra step would be very meaningful to people." While many MBCT graduates were in favor of this approach, a few teachers expressed concern about the feasibility, explaining, "You would need a real network and team to be able to do that" and cautioned, "You never really know what is going to happen in terms of what may emerge." A few MBCT teachers proposed extending an invitation for an optional one-on-one check-in at the end of the program, but both MBCT graduates and teachers noted, "When you are really desperate it is very hard to ask for help." Overall, despite some concern for the sustainability and scalability of the maintenance program due to workload challenges on behalf of some of the MBCT teachers, participants were generally enthusiastic about and interested in the maintenance program and the components proposed.

Discussion

Qualitative findings from the current investigation demonstrate the MBCT program is highly valued by MBCT graduates and teachers and, as intended, is perceived to reduce the frequency and severity of depression relapse, in addition to many other benefits. However, most MBCT graduates described challenges to sustaining the benefits they gained during the MBCT course after it ended. These challenges were perceived as stemming, in part, from a need for deeper understanding of meditation practice; difficulty with integration of these new skills, which are learned in a structured environment, into organic, everyday routines; and insufficient support to reinforce maintenance of practice beyond the conclusion of the MBCT program.

Participants found that 8 weeks was not a sufficient length of time to learn and deeply integrate new, complex skills into their lifestyle that they were just starting to gain mastery of at the conclusion of the MBCT program. This expressed difficulty is not surprising, given that behavioral and lifestyle change are both challenging, context dependent, and entail complex processes,[9] and maintaining mindfulness and meditative practice after an intervention is not specific to MBCT, it is a challenge for all mindfulness-based interventions.[10] Despite the currently available supports for maintaining mindfulness practices (ie, community- and alumni-based meditation groups, retreats, and mobile device applications), participants expressed limitations to these approaches, namely, that they are not designed for individuals who have a history of depression. While there is clearly value in repeating the MBCT course since it may refresh, strengthen, and/or deepen mastery of skills, it only postpones the challenges, because it does not fully address the translational pitfall, which requires a different set of skills (eg, anticipation of potential barriers and preplanned solutions). Masheder and colleagues[10] propose addressing this pitfall through use of the behavior change model, "COM-B," which emphasizes an individuals' capability, motivation, opportunity, and behavior.[11] Based on this model, they propose improving an individuals' self-efficacy, self-care, beliefs about mindfulness practice, ability to plan and commit, social support, relationship to the instructor, and experience the reward of practice, are all key to maintained mindfulness practice. Each of these factors could be included and emphasized in an MBCT maintenance program to target and improve sustained behavior change (ie, maintained mindfulness practice).

Most participants were interested in an MBCT maintenance program and offered helpful recommendations for how it could be structured to address current gaps and better meet graduates' needs. Most were in favor of a 4-6-week program comprised of booster modules supplemented with: (1) a mechanism for individual check-in (eg, phone call); (2) an ongoing, virtual, meditation group for MBCT graduates; and (3) an online community forum for the exchange of information. Participants' expressed support for these components is consistent with prior qualitative findings that demonstrated preference for augmenting mindfulness-based interventions with individualized, digital tools as a means to support and encourage home practice.[12] It is plausible to suspect that these proposed supplementary components aimed to facilitate engagement and support outside of structured booster module sessions will be particularly influential in aiding in sustained behavior change. Participants felt booster module content should review and expand upon the core MBCT content by introducing new skills to facilitate integration of mindfulness practice into everyday routines to avoid an abrupt ending, while maintaining a focus on reducing risk for depression. Both graduates and teachers were in favor of structuring booster sessions and on-going meditation groups to include time for both meditation practice and group discussion. Participants generally agreed that the advantages of virtual maintenance groups using videoconferencing outweigh the disadvantages of not meeting in-person. Taken together, these perspectives suggest some graduates have a need for additional structured support following the MBCT program.

Challenges and Limitations

There were several limitations to the current investigation. We conducted the focus groups using a videoconference platform in October and November of 2020, which was approximately 6 months after the COVID-19 outbreak was declared a pandemic and stay-at-home orders were instituted across the United States. Participants had experienced the MBCT program in-person prior to the COVID-19 pandemic. Therefore, perspectives on the limitations of the MBCT maintenance program being delivered virtually were formed by previous in-person experiences. Given that the COVID-19 pandemic has involved increased experience with virtual meetings for many people, it is possible some participants' perspectives have since changed, such that some may be more comfortable with virtual platforms, whereas others may be tired of virtual engagement and increasingly interested in resuming in-person activity. As most MBCT courses moved on-line during this period, the perspectives of recent graduates of online courses and their teachers might differ from participants in our focus groups. Moreover, because focus groups were offered online, only individuals who were willing and able to participate in a videoconference meeting were included in the study. We did not capture perspectives from individuals who were unwilling or unable to engage on a video conferencing platform. Although our recruitment efforts yielded a geographically diverse sample of MBCT teachers, our graduate sample predominantly represents individuals who participated in MBCT at one of two locations: UCSF in San Francisco, California, and Vanderbilt University in Nashville, Tennessee. The lack of graduates from more sites potentially limits the generalizability of our findings, particularly where there are differences in implementation of MBCT programs. Moreover, the current sample was relatively homogeneous with respect to racial and ethnic identities and predominantly female, although it largely reflected the populations taking MBCT courses at the locations we recruited from. Still, the homogeneity of the sample may limit generalizability. Many participants took an MBCT course at least a few years in the past, which may have increased recall bias more than if participants had been recent graduates. Lastly, it is possible that those who responded to our recruitment efforts and enrolled in the study were more interested in a maintenance MBCT program than those who did not respond. Therefore, we may not have captured perspectives from MBCT graduates and teachers less interested in additional MBCT programming.

Conclusions

Both graduates and teachers of MBCT expressed a clear need for additional structured support following the core 8-week MBCT course to better sustain the benefits of the 8-week course. While there are many MBCT teachers who currently offer some form of support to graduates after the course, particularly alumni-based meditation groups, teachers expressed challenges implementing these including low attendance and lack of infrastructure to support these efforts. Graduates described limitations to the other currently available avenues of support (community-based meditation groups, mobile device applications), leaving many MBCT graduates with challenges to sustain MBCT practices independently after the course. As a result, many graduates reported taking the MBCT course a second time and/or experiencing depression relapse. Future efforts should prioritize the design and subsequent testing of an MBCT maintenance program to better meet the needs of MBCT graduates.

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