



# A Pilot Study of Mindfulness-Based Cognitive Therapy to Improve Well-Being for Health Professionals Providing Chronic Disease Care

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**Objective** To assess the efficacy of mindfulness-based cognitive therapy delivered onsite during work hours in reducing stress and improving well-being in an interdisciplinary chronic care health care team.

**Study design** A longitudinal, mixed methods, observational pilot study using a survey created from validated assessment tools to measure effectiveness of training. Surveys were completed before training, and 1 and 15 months after training. Twenty-four professionals in the cystic fibrosis Centers at Cincinnati Children's Hospital and the University of Cincinnati participated in 6 mindfulness-based cognitive therapy training sessions. Sessions incorporated mindfulness, cognitive therapy, and experiential exercises for processing feelings related to stress and burnout.

**Results** The presurvey and 1-month postsurvey responses revealed statistically significant improvements for empathy, perceived stress, depersonalization, anxiety, perspective taking, resilience, and negative affect. Sustained effects were seen at 15 months for empathy, perspective taking, and depressive symptoms. The 1-month post-training surveys reported a quarter of respondents (25%) practiced skills at least 5 times in between sessions; at 15 months, 35% reported practicing at the same frequency. Participants reported using mindfulness skills for personal stressful events (74%), work-related general stress (65%), patient-related stress (30%), sleep or general relaxation (22%), and wellness (13%).

**Conclusions** Group mindfulness-based cognitive therapy training was feasible and effective in decreasing stress for interdisciplinary cystic fibrosis care team members who elected to participate. Further investigation is needed to determine optimal dose of training, durability of perceived benefits, and generalizability to health care professionals working with other chronic disorders. (*J Pediatr* 2020;224:87-93).

See editorial, p 18

Work-related stress in health care settings has been documented repeatedly and is an increasingly prevalent concern.<sup>1</sup> In fact, burnout as the result of stress or distress in the workplace, defined by emotional exhaustion, depersonalization, feelings of reduced accomplishment and work fulfillment, and reduced effectiveness, is experienced by an expanding segment of the clinician workforce.<sup>2</sup> A number of studies report stress and burnout for pediatric physicians, nurses, and other staff, particularly those who work in intensive care, emergency, and oncology settings.<sup>3-6</sup> Little attention has been paid to stress and burnout of interdisciplinary professionals caring for children with long-term, disabling or life-threatening conditions. Consequences to burnout may include compassion fatigue, medical errors, decreased patient and family satisfaction with care, and provider resignation from the workplace.<sup>7</sup> The stress of providing high-quality, complex continuity of care for patients with cystic fibrosis (CF) is a challenge for many providers, as well as support staff. CF health professionals may be at high risk for stress because of the long-term, progressive nature of this disorder and its mortality rate.<sup>8</sup>

Mindfulness has emerged as a promising practice in addressing the epidemic of professional stress and burnout.<sup>9</sup> Mindfulness is present moment awareness with an attitude of openness and nonjudgment.<sup>10,11</sup> This increased awareness allows an individual to make conscious, proactive responses to distressing thoughts, emotions, and bodily sensations rather than falling into unhelpful automatic reaction patterns. One of the most well-established evidence-based

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CCHMC	Cincinnati Children's Hospital Medical Center
CF	Cystic fibrosis
MBCT	Mindfulness-based cognitive therapy
UC	University of Cincinnati

mindfulness programs, mindfulness-based stress reduction, is an 8-week program developed by Kabat-Zinn, originally for chronic pain.<sup>10</sup> This program has been adapted to counter stress, anxiety, depression and other conditions. Mindfulness-based cognitive therapy (MBCT) has adapted components from mindfulness-based stress reduction and incorporates elements of cognitive behavioral therapy, such as recognition of cognitive distortions, depression relapse prevention, relational intervention, and behavior change.<sup>12</sup> MBCT was originally created to prevent relapse in patients with depression and has been used in clinical settings to address depression, anxiety, and post-traumatic stress disorder.<sup>12</sup> Both mindfulness-based stress reduction and MBCT have been used by health care professionals to reduce work-related stress and improve burnout rates in multiple disciplines, including nurses, physicians, medical residents, and mental health professionals.<sup>13-22</sup>

The CF care program at Cincinnati Children's Hospital Medical Center (CCHMC) used a cross-sectional preliminary survey to assess staff stress and burnout before implementing an MBCT intervention. Results revealed an average work-related stress score of 6.6 on a 10-point Likert scale (where 10 = high; range, 3-9). Staff reported competing demands, unrealistic expectations, pressure to perform, and the chronic care population as contributing to overall stress. In an effort to mitigate this stress, avoid burnout, and improve overall well-being, the CF Center offered an abbreviated MBCT training (six 1-hour sessions) to all pediatric and adult staff. The purpose of this pilot longitudinal observational study was to test the feasibility and initial efficacy of group MBCT training provided in the workplace for staff stress and improvement of overall well-being. We hypothesized that many, but not all, team members would both engage in and benefit from MBCT training and exercises.

## Methods

All participants were recruited from the pediatric CF Center at CCHMC and the University of Cincinnati (UC) adult CF Center. Inclusion criteria included clinical or administrative support of CF-related care and interest in participating. To recruit and engage staff, the trainer held a 1-hour orientation session 1 month before training to introduce MBCT concepts, the evidence-base for MBCT, potential benefits of mindfulness, and how it can be applied in daily life. A total of 56 interdisciplinary staff were invited to participate in training and complete surveys before and 1 month after the intervention. Of those, 52 staff completed the pretraining survey; 24 (43%) completed both a pretraining and 1-month post-training survey and were included in final analyses. The remaining 32 staff either declined to participate, were unable to participate owing to clinical schedules, or did not complete both the pretraining and 1-month post-training survey. The Institutional Review Board at UC

approved the study and covered activities at both UC and CCHMC.

## Study Design

This longitudinal observational study was exploratory in nature and used a mixed methods survey created from validated assessment tools to measure the feasibility and effectiveness of training, and qualitative assessment from participants was used to get feedback on their experience in training. The survey was emailed to staff for online completion 1 month before the start of training, 1 month after training completion, and 15 months after training completion to assess sustained effects. Components of the survey assessed empathy, perceived stress, burnout (measured by depersonalization, emotional exhaustion), anxiety, perspective taking, resilience, negative affect, depressive symptoms, fatigue, positive affect, and sleep. An independent data team at UC analyzed data and provided de-identified results to the study team.

Six 1-hour MBCT training sessions were conducted in person, onsite at CCHMC during daytime work hours. The original 8-week MBCT protocol was condensed by combining sessions 1 and 2 as well as sessions 5 and 6.<sup>12</sup> Sessions were held approximately 2 weeks apart and training was completed within 3 months. Sessions were video recorded and made available to staff who were unable to attend in person. Content, which is detailed in **Table I** (available at [www.jpeds.com](http://www.jpeds.com)), varied by session and each session expanded on skills learned in prior sessions. The group intervention format focused on skills building, practical implementation, sharing of experiences, and lessons learned. Session topics included concepts related to mindfulness and cognitive therapy, and included experiential exercises for noticing the physical, emotional, and thinking processes related to stress and burnout.

## Measures

Demographic variables were collected in the pretraining survey, including participant age, sex, race, health care discipline, and overall self-reported health status (poor, fair, good, very good, excellent). Additionally, the 1-month post-training survey included open-ended qualitative questions to assess the feasibility, acceptability, and usefulness of the training. The 15-month follow-up survey included the same assessment tools and additional questions about the frequency and helpfulness of mindfulness skills used since training completion. The following assessment tools were included in all surveys.

The Brief Resilience Scale is a 6-item, validated assessment of resilience, coping, and social support. Items are rated on a 5-point Likert scale with responses ranging from strongly disagree to strongly agree.<sup>23</sup>

The Interpersonal Reactivity Index is a 28-item scale with 4 subscales: perspective taking, empathic concern, personal distress, and fantasy.<sup>24</sup> This study used the perspective taking

and empathic concern subscales resulting in 14 total items. Perspective taking measures the ability to adopt others' viewpoints, and empathic concern assesses the ability to experience compassion for others. Responses were rated on a 5-point Likert scale from does not describe me well to describes me very well.

The Maslach Burnout Inventory is a 22-item measure of occupational burnout.<sup>25</sup> Two questions were pulled from the original survey: "How often do you feel burned out from your work?" and "How often do you feel you've become more callous toward people since you have been working?" These 2 items assessed depersonalization, meaning the disengagement from personal surroundings, and emotional exhaustion, or being over-extended or exhausted by work.<sup>26</sup> Five response options ranged from never to every day.

The Perceived Stress Scale is a 10-item questionnaire measuring the frequency of perceived stress in the past month.<sup>27</sup> Items are rated on 5-point Likert scale with responses from never to very often.

The Positive and Negative Affect Scale is a 20-item questionnaire that measures the frequency of positive and negative emotions.<sup>28</sup> The measure displays 20 adjectives and asks respondents the extent to which they have felt that way in the past week. Responses include very slightly or not at all to extremely. Scores range from 10 to 50, with higher scores intended for positive affect and lower scores intended for negative affect.

The Patient-Reported Outcomes Measurement Information System is a measure developed by the National Institutes of Health to assess physical, mental, and social health.<sup>29</sup> In its entirety, it is a 28-item scale with 8 domains. For this study, only the short forms of anxiety, depression, fatigue, and sleep domains were assessed resulting in a total of 16 questions. Responses rate difficulty across 5 options from without any difficulty to unable to do. To find the total raw score, values of the response to each question were summed and then translated into a T-score based on the Patient-Reported Outcomes Measurement Information System scoring criteria for each participant. The T-score

**Table II. Differences in pre-1-month post survey assessment**

Assessments	n*	Mean (SD)	P value
Empathy			
Pre	24	22.04 (4.06)	–
Post	24	24.38 (2.96)	<.0005 <sup>†</sup>
Perceived stress			
Pre	22	18.95 (7.13)	–
Post	22	15.00 (6.32)	<.0005 <sup>†</sup>
Depersonalization (burnout)			
Pre	21	2.52 (2.00)	–
Post	21	1.68 (1.59)	.01 <sup>†</sup>
Anxiety			
Pre	21	55.86 (5.57)	–
Post	21	52.35 (7.45)	.02 <sup>†</sup>
Perspective taking			
Pre	24	19.75 (3.80)	–
Post	24	21.29 (2.99)	.02 <sup>†</sup>
Resilience			
Pre	21	23.05 (3.57)	–
Post	21	24.38 (3.40)	.02 <sup>†</sup>
Negative affect			
Pre	23	20.26 (5.31)	–
Post	23	18.70 (5.87)	.04 <sup>†</sup>
Depressive symptoms			
Pre	21	52.00 (6.14)	–
Post	21	50.35 (6.97)	.06
Fatigue			
Pre	21	55.82 (8.06)	–
Post	21	54.24 (7.38)	.25
Emotional exhaustion (burnout)			
Pre	20	3.43 (1.67)	–
Post	20	3.24 (1.89)	.46
Positive affect			
Pre	21	34.38 (6.58)	–
Post	21	34.95 (8.28)	.64
Sleep disturbance			
Pre	21	49.34 (3.68)	–
Post	21	49.49 (4.19)	.86

\*Twenty-four surveys included in pre-1-month post analyses; however, not all respondents answered all questions resulting in varying total number of responses for each topic.  
<sup>†</sup>P < .05.

rescales the raw score into a standardized score with a mean of 50 and an SD of 10.

### Statistical Analyses

Data were securely collected using an online survey tool and downloaded to SPSS. Data analytic procedures were conducted using IBM SPSS 23 (SPSS, Inc, Chicago, Illinois). Descriptive statistics were calculated for demographic variables. Paired sample *t* tests were completed to examine differences in assessments across pretraining and 1-month post-training surveys and a repeated measures ANOVA was used to measure persistence of effects at the 15-month follow-up. Open-ended questions were analyzed using the Editing Method, in which sample quotes were pulled as representative responses to questions about program impact and satisfaction.<sup>30</sup>

## Results

Twenty-four staff completed both a pretraining and 1-month post-training survey and were thus included in analyses. The mean age of survey respondents was 48 years, 83% were female, 63% rated their health as very good or excellent, and 100% were Caucasian. Respondents represented the following disciplines: psychosocial-social worker or psychologist (25%), clinical support-pharmacist, respiratory therapist, or dietician (25%), physician (25%), nurse or nurse practitioner (13%), and program support-quality improvement or project management (13%). A total of 16 survey respondents (67%) attended or watched the recording of at least 4 of 6 sessions. Although sessions were recorded for convenience, only 5 of the total 24 participants watched a recording instead of attending a session in person. At time of the 1-month post-training survey, one-quarter of respondents (*n* = 6) reported practicing skills at least 5 times between sessions, and 13 (54%) identified the importance of the program as a 7 or higher on a 1-10 scale (where 10 = high).

Differences in pretraining to 1-month post-training survey responses revealed significant improvements on most measures (Table II). Statistically significant improvements emerged for empathy, perceived stress, depersonalization (construct of burnout), anxiety, perspective taking, resilience, and negative affect. Changes pretraining to 1-month post-training surveys for depressive symptoms, fatigue, emotional exhaustion (construct of burnout), positive affect, and sleep were not statistically significant; however, all assessments except sleep disturbance showed improvement.

On the 1-month post-training survey open-ended questions, many participants reported that mindfulness sessions enhanced their emotional well-being, helped them to remain calm and focused, and gave them a broader perspective in stressful situations. These responses demonstrate perceptions of lifestyle improvements for both personal and professional dimensions of their lives in addition to the statistical significance of survey responses. Most participants also felt that these sessions

#### How did this program impact you in your professional career and/or home life, if at all?

- "I am generally an easy going person who doesn't stress out much anyway, but this was a reminder to live in the moment and that doing so can actually be beneficial for one's emotional well-being."
- "I have started to go into patient encounters with a different frame of mind and have been more able to consider other people's responses to things and perspectives before reacting. Still work to do!"
- "I feel I am more able to handle stress, am more thoughtful about how I cope or experience my emotions, and am better at putting work activities in perspective."
- "Not so much but I still found it very useful."

#### Having had this experience, what is your opinion about the usefulness of mindfulness for patients and families?

- "I think it is extremely valuable for our families, particularly around painful, boring, or disliked medical procedures or treatments."
- "I think this would provide enormous benefits for patients and family members in managing their illness and coping."
- "I think that mindfulness will be helpful for those patients and families who are open to engaging."

**Figure.** A sample subset of 1-month post-training survey qualitative responses about program efficacy.

would be useful and important for patients and families (sample responses available in the Figure). Two participants reported understanding the potential of MBCT training, but did not perceive personal benefits or decided it was not applicable to their life.

A total of 23 staff completed the 15-month follow-up; one staff member had left the institution and could not be reached. The following assessments sustained significant positive effects at the 15-month mark: empathy, perspective taking, and depressive symptoms. Although not significant, fatigue improved further and emotional exhaustion did not change across follow-up assessments. The remaining assessments shifted back towards baseline measurements and were not significant (Table III).

At the 15-month follow-up, 35% of participants reported continued practice of mindfulness skills at least 5 or more times a month since conclusion of the training. Participants reported using mindfulness skills for personal stressful events (74%), work-related general stress (65%), patient-related stressful events (30%), sleep or general relaxation (22%), and wellness (13%). Additionally, 65% of participants agreed that booster session(s) after training conclusion would have bolstered frequency and usefulness of practicing skills.

## Discussion

There are several research articles on health care provider stress and burnout, including systematic reviews.<sup>31,32</sup> Studies of interventions to mitigate this stress in general show modest improvement, but have not, for the most part, been centered around chronic disease care teams and have not assessed workplace group interventions for interdisciplinary team members.<sup>33</sup> The literature on burnout of CF care team health professionals and application of interventions is dated and sparse.<sup>34</sup>

**Table III. Differences in assessments at the 15-month follow-up survey**

Assessments	n*	Mean (SD)	P value
Empathy			
Pre	24	22.04 (4.06)	–
Post	24	24.38 (2.96)	–
15 mo	23	24.17 (2.99)	.001†
Perceived stress			
Pre	22	18.95 (7.13)	–
Post	22	15.00 (6.32)	–
15 mo	22	17.23 (7.46)	–
Depersonalization (burnout)			
Pre	21	2.33 (1.98)	–
Post	21	1.68 (1.60)	–
15 mo	21	1.76 (1.76)	–
Anxiety			
Pre	21	55.86 (5.57)	–
Post	21	52.35 (7.45)	–
15 mo	21	52.97 (6.48)	–
Perspective taking			
Pre	24	19.75 (3.80)	–
Post	24	21.29 (2.99)	–
15 mo	23	21.39 (2.35)	.05†
Resilience			
Pre	21	23.05 (3.57)	–
Post	21	24.38 (3.40)	–
15 mo	21	23.86 (2.63)	–
Negative affect			
Pre	23	20.26 (5.31)	–
Post	23	18.70 (5.87)	–
15 mo	23	19.09 (6.69)	–
Depressive symptoms			
Pre	21	52.00 (6.14)	–
Post	21	50.35 (6.97)	–
15 mo	21	47.80 (6.70)	.02†
Fatigue			
Pre	21	55.82 (8.06)	–
Post	21	54.24 (7.38)	–
15 mo	21	53.50 (7.36)	–
Emotional exhaustion (burnout)			
Pre	20	3.43 (1.72)	–
Post	20	3.10 (1.83)	–
15 mo	20	3.10 (1.48)	–
Positive affect			
Pre	21	34.38 (6.58)	–
Post	21	34.95 (8.28)	–
15 mo	23	34.26 (9.28)	–
Sleep disturbance			
Pre	21	49.34 (3.68)	–
Post	21	49.49 (4.19)	–
15 mo	21	50.13 (3.88)	–

\*Twenty-three surveys were included in the 15-month follow-up analyses; however, not all respondents answered all questions resulting in varying total number of responses for each topic. † $P < .05$  is significant for ANOVA measuring sustained effects at 15-month follow-up survey; all other  $P$  values were not significant at 15 months.

The 1-month post-training survey results provided initial evidence for acceptance, feasibility, and effectiveness of offering a workplace-based, condensed MBCT group training model for decreasing staff stress and burnout within an interdisciplinary CF team. Additionally, the 15-month follow-up results demonstrated some sustained benefits, albeit with expected waning of effect size. Staff who attended sessions and engaged in practice reported satisfaction with the intervention and significant improvements in wellness, both personal and professional. As hypothesized, the training was not

desired or seen as a priority for all staff, which likely resulted in some selection bias. Presurvey mean scores of participants included in these analyses were compared with those who completed only a presurvey and did not engage in training. Results revealed that the cohort of staff who participated in training had statistically higher anxiety and negative affect scores. This finding may suggest that those staff who perceive a greater need are more likely to participate in training. Additionally, self-selected participation suggests that MBCT training should be viewed as a voluntary skills-building opportunity rather than mandatory training.

Statistically significant differences in the pretraining and 1-month post-training survey assessments, as well as some persistence at 15 months, suggest that staff experienced benefits from the training in important areas of functioning, including empathy, perspective taking, and resilience, and less stress, depersonalization, anxiety, and negative affect. Notably, although these improvements reached statistical significance at some point in the study, it is also important to consider that improvements in scores may reflect improvements in social-emotional interactions and workplace functioning. This finding is reflected in positive qualitative comments and requires further assessment in future studies. Our findings identify areas of need that should be addressed in future research to mitigate overall stress and burnout. For example, baseline nightly sleep or weekly exercise were not assessed or controlled for, and formal interventions may be needed to improve sleep and decrease fatigue and emotional exhaustion, neither of which improved significantly in this study.

The limitations of this observational study include low survey response rate, which resulted in a small sample size and did not allow investigation of dose-response relationships, assessment of outcomes by age, discipline, or overall health status, or a comparison group. Staff engagement in the program was aligned with realistic a priori expectations and was not comprehensive for a variety of reasons, including barriers to session attendance during the workday and buy-in from an already busy clinical and administrative team. On the contrary, there may have also been a selection bias owing to self-selection of participation and by working with a seasoned team, many with a long history of working together and supporting each other. In addition, the construct of stress is variable across time, environment, and individuals, elements that were not documented or considered in this study. Potential mediating factors, such as high clinic volume, changing hospital environment, or personal stressful events, were not considered in analyses but are also important to address in future research.

These findings warrant replication of this intervention in health care environments with different patient and health professional populations. All our participants were Caucasian, and MBCT may be received and applied differently in environments with differing race and ethnicity. Additional studies in other interdisciplinary medical clinics will address questions about the intervention's generalizability. In addition, systems of care will need to address concerns

about privacy and potential for stigmatization when this training is delivered in a group setting. Perhaps engagement in training would increase if sessions were delivered in an individual format; however, this could come at the cost of the group benefits and feasibility. The sharing of personal experiences with MBCT was a prominent component of our intervention, and peer-peer support has been noted to improve the perspectives of health care professionals.<sup>35</sup> Our intervention not only provides opportunity for individual stress reduction, but also may support workplace change that is seen as a critical element of burnout prevention.<sup>2</sup>

Effective measures to improve health care workplace well-being and decrease the risk for burnout are a high priority. Further examination of how best to implement MBCT skills training, which in our setting improved well-being of individuals across disciplines, into standard professional practice for long-term effectiveness is much needed. Future studies might include a more robust MBCT intervention or utilization of booster sessions to enhance durability of effects. Similarly, future research could incorporate behavioral interventions coupled with MBCT to improve other factors in stress and burnout such as sleep and exercise. In addition, health system management will need to encourage and incentivize employees to dedicate time for training and implementation of learning within daily responsibilities. ■

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## 50 Years Ago in *THE JOURNAL OF PEDIATRICS*

### Drug Sensitivity to *Salmonella typhi*: Coming Full Circle

Chawla V, Chandra RK, Bhujwala RA, Ghai OP. A comparative trial of hetacillin and chloramphenicol in typhoid fever. *J Pediatr* 1970;77:471-3.

In 1970, Chawla et al were concerned about the “rampant use” of chloramphenicol for treatment of typhoid fever owing to its serious toxic effects. They studied hetacillin (a synthetic derivative of 6-aminopenicillanic acid) as a safer alternative and concluded that it had comparable efficacy with fewer side effects.

Fifty years later, typhoid fever remains a public health problem, especially in developing countries, causing approximately 11 to 21 million cases and 128 000 to 161 000 deaths annually, with the peak incidence in children aged 5 to <15 years. Up to the 1970s, chloramphenicol was widely used to treat enteric fever. It was replaced by ampicillin and trimethoprim-sulfamethoxazole due to the emergence of resistant strains. In the early 1980s, there was a rapid emergence of IncHI1 plasmid-mediated resistance to all 3 drugs, in multidrug-resistant strains. This prompted the use of fluoroquinolones, which were highly efficacious.

The late 1990s witnessed decreased sensitivity to fluoroquinolones (primarily ciprofloxacin and ofloxacin) mainly via chromosomal mutations and emergence of intermediate and fully insensitive strains, such as nalidixic acid-resistant *Salmonella typhi*, especially in Asia. Third-generation cephalosporins have since replaced fluoroquinolones for empirical therapy of typhoid. The addition of azithromycin to cephalosporins may be warranted in clinically nonresponsive patients.<sup>1,2</sup> Recently, *S. typhi* strain H58, which is resistant to 3 primary drugs, fluoroquinolones and cephalosporins, has emerged in certain pockets of the Indian subcontinent, especially Pakistan, since 2016; these strains are now labeled as extensively drug-resistant.<sup>3</sup> Alarming, sporadic cases of azithromycin resistance have also started to appear in the same geographical region. An interesting twist: due to decreased use, sensitivity to chloramphenicol, ampicillin, and co-trimoxazole is reemerging in some regions, including India.

The journey portrayed by the bacilli shows extreme variability in sensitivity pattern based on geographical region, prevalent strains, and antibiotic usage profiles. Stringent and continual microbiological surveillance and appropriate antibiotic stewardship need to be integrated into the global strategy against typhoid to address antimicrobial resistance.

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## References

1. Gibani MM, Britto C, Pollard AJ. Typhoid and paratyphoid fever: a call to action. *Curr Opin Infect Dis* 2018;31:440-8.
2. Browne AJ, Kashef Hamadani BH, Kumaran EAP, Rao P, Longbottom J, Harriss E, et al. Drug-resistant enteric fever worldwide, 1990 to 2018: a systematic review and meta-analysis. *BMC Med* 2020;18:1.
3. Hussain A, Satti L, Hanif F, Zehra NM, Nadeem S, Bangash TM, et al. Typhoidal *Salmonella* strains in Pakistan: an impending threat of extensively drug-resistant *Salmonella typhi*. *Eur J Clin Microbiol Infect Dis* 2019;38:2145-9.

**Table I. Six-session MBCT training session curriculum**

Sessions	Content
1	<p>Introduction to mindfulness, what to expect from the course</p> <p>Overview of the Antecedent, Beliefs, Consequences (ABC) model of cognitive behavior therapy (relationship of thoughts and feelings)</p> <p>Activity: mindful eating (raisin exercise)</p> <p>Introduction to exercises:</p> <ul style="list-style-type: none"> <li>• Body scan</li> <li>• Mindfulness of the breath</li> <li>• Pleasant Events calendar</li> </ul> <p>Homework: daily body scan, breathing exercise, Pleasant Events calendar, and daily activity log</p>
2	<p>Activity: sitting meditation (breath, entire body, sounds)</p> <p>Introduction to new exercises:</p> <ul style="list-style-type: none"> <li>• Mindful walking and mindful stretching</li> <li>• Staying present</li> <li>• 3-Minute breathing exercise</li> <li>• Unpleasant Events calendar</li> </ul> <p>Homework: sitting meditation every other day, mindful walking/activity, 3-minute breathing exercise, and Unpleasant Events calendar</p>
3	<p>Activity: sitting meditation (breath, entire body, sounds, thoughts)</p> <p>Recognizing aversion and unhelpful automatic reactions</p> <p>Introduction to new exercises:</p> <ul style="list-style-type: none"> <li>• Automatic Thoughts questionnaire</li> </ul> <p>Homework: daily sitting meditation, 3-minute breathing exercise, 3-minute breathing exercise-responsive version (to do when noticing unpleasant feelings)</p>
4	<p>Activity: sitting meditation (breath, entire body, sounds, thoughts, difficulties)</p> <p>Turning toward difficult feelings, experiences</p> <p>Thoughts are not facts – recognizing cognitive distortions</p> <p>Viewing thoughts differently</p> <p>Introduction to new exercises:</p> <ul style="list-style-type: none"> <li>• Burnout prevention</li> <li>• Working Wisely worksheet – identify triggers to stress and how you react to stress</li> </ul> <p>Homework: daily sitting meditation, 3-minute breathing exercise, 3-minute breathing exercise responsive version, Working Wisely worksheet</p>
5	<p>Activity: sitting meditation (breath, entire body, sounds, thoughts, difficulties)</p> <p>Self-care</p> <p>Introduction to new exercises:</p> <ul style="list-style-type: none"> <li>• Mindful action</li> <li>• Exhaustion funnel</li> <li>• Working Wisely worksheet part 2 – action plan after noticing stress building</li> </ul> <p>Homework: daily sitting practice, 3-minute breathing exercises, complete action plan</p>
6	<p>Activity: body scan</p> <p>Maintenance – how to maintain learning and incorporate skills into daily life</p>

Adapted from Segal et al.<sup>12</sup>