Resilience Training: A Pilot Study of a Mindfulness-Based Program with Depressed Healthcare Professionals

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Context: Mindfulness-based programs have been primarily used to target anxiety or the prevention of relapse in recurrent depression; however, limited research has been conducted on the use of mindfulness programs for relief of current depressive symptoms.

Objective: To investigate the potential effect of resilience training (RT) on symptom relief for current or recurrent depression, and other psychological/behavioral outcomes.

Design: Wait-list comparison pilot study.

Setting: Penny George Institute for Health and Healing, Allina Health, Minneapolis, MN.

Participants: A total of 40 actively working healthcare professionals age 18–65 years.

Intervention: RT is an eight-week mindfulness-based program that synergizes elements of mindfulness meditation with nutrition and exercise. The first 20 consecutive individuals meeting all eligibility criteria were assigned to the RT group. The next 20 consecutive eligible individuals were placed into the wait-list control group and had an eight-week waiting period before starting the RT program.

Outcome Measures: Psychological/behavioral outcomes were measured before and after completion of the RT program and two months after completion. Wait-list participants also had measures taken just before starting on the wait-list.

Results: The RT group exhibited a 63–70% ($P \leq .01$) reduction in depression, a 48% ($P \leq .01$) reduction in stress, a 23% ($P \leq .01$) reduction in trait anxiety, and a 52% ($P \leq .01$) reduction in presenteeism (a per-employee savings of $1846 over the eight-week program). All outcomes were statistically significantly different from the wait-list group. Most improvements persisted up to two months after completion of the RT program.

Conclusions: Further replication with a larger sample size, and enhanced control group is warranted.

Key words: Anxiety/anxiety disorders, Depression, Stress, Mindfulness/meditation

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INTRODUCTION

Mindfulness-based programs are growing in popularity and have been associated with improvements in anxiety, stress, and other symptoms (e.g., quality of life measures and sleep) in a variety of populations.[1–5] Mindfulness interventions are intended to support cultivation of awareness and focus on the reality of the present moment with acceptance and acknowledgment and without interpretation or emotional reaction.[6]

The popular mindfulness-based stress reduction (MBSR) program developed by Jon Kabat-Zinn[6] has been recommended as either a stand-alone or adjunctive intervention for a variety of medical conditions, including depressive symptomology.[3] However, MBSR was not developed specifically to target active depression,[6–8] and one review did not report evidence for MBSR's efficacy for depression and anxiety.[9] Another program, mindfulness-based cognitive therapy (MBCT), has been reported by several systematic reviews to alleviate depression under specific circumstances, notably prevention of relapse in recurrent depression.[3,10,11] A 2014 meta-analysis was the first to examine the effects of mindfulness-based interventions on individuals with a diagnosis of current depressive disorder, with findings of significant benefits of MBCT and another program, person-based cognitive therapy, on 160 participants with current depression in four studies.[12]

Despite this small body of evidence for benefits of mindfulness-based interventions in treating current depression, MBSR has primarily been used to treat anxiety disorders, while MBCT has a specific role in preventing and mitigating relapse in recurrent depression,[6,12,13] leaving a gap in how mindfulness-based interventions may be most appropriately and deliberately delivered to participants with current depression. Based on the work of Dr. Henry Emmons,[14] an eight-week group program called resilience training (RT) was developed at the Penny George Institute for Health and

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Healing specifically for the treatment of current depression. RT shares common elements with, but is distinct from, other popular mindfulness-based interventions because RT synergizes key elements of mindfulness meditation along with nutrition and exercise into a cohesive, accessible intervention. While RT incorporates elements of MBSR, it is not based upon MBCT, and any similarities are due to their common rootedness in MBSR.

The RT program encourages natural resilience to stressors, an approach predicated on the possibility that depressed participants can increase their ability to respond to and manage stress. Historically, resilience has commonly been treated as a relatively stable trait.[15] However, a framework of resilience recently described by Waugh and Koster[15] is consistent with the aims and foci of the RT program, proposing that resilience among people with depression may be deficient but can be developed. The authors describe individuals with recurrent depression—even during periods of remission—as particularly sensitive to small stressors, and they suggest the promotion of coping with minor stressors, promoting positive emotions, and cultivating awareness of various environmental demands in order to respond to these demands with more flexibility.[15] These approaches to improving resilience share common ground with the central activities of mindfulness training. We hypothesize that the multi-modal RT program, which combines mindfulness training with exercise and nutritional strategies, may have the potential to benefit participants with current depressive symptoms.

Reviews and meta-analyses suggest that nutrition[16,17] and exercise[18,19] can positively affect depression levels. While evidence for the effects of nutritional elements on depression is mixed, there are review articles and studies suggesting omega-3 fatty acids,[20,21] dietary and supplemental folate,[22,23] B12,[23] and vitamin D[24,25] may positively influence depressive symptoms. Support for exercise includes a 2013 Cochrane report summarizing data from 35 trials that compared exercise with no treatment or a control intervention for depression, finding exercise to have a moderate clinical effect on depression symptoms.[18] Additional reviews and randomized trials have found protective effects against depression with even low doses (20–60 minutes per week) of exercise,[26] and effects comparable to antidepressant medication.[27] Exercise has been suggested as adjuvant treatment for many or most patients with depressive disorder.[28]

In the present wait-list comparison pilot investigation, we explore whether RT fills a gap in available mindfulness-based interventions by using similar, but additional, components to target major depressive disorders in a group of currently depressed healthcare professionals. Healthcare professionals, subject to a great deal of work-related stress,[29,30] frequently feel overworked and understaffed, and several studies report lower quality of life and high stress in physicians[31,32] and in nurses.[33,34] Depression, which has been associated with job stress,[35,36] is a costly health condition among employees in the United States, particularly with regard to presenteeism, or loss of on-the-job work productivity.[37] Severity of depression and work productivity loss have been found to have a strong linear relationship.[38]

In this study, we investigate the potential effect of the RT program on immediate and two-month post-intervention symptom relief for current or recurrent depression, as well as other psychological and behavioral outcomes including stress, anxiety, workplace productivity, and health-promoting behavior.

MATERIALS AND METHODS

Study Population

A total of 40 clinically depressed healthcare professionals working for Allina Health participated in a wait-list comparison pilot study. Recruitment took place between August and November 2008 through electronic and print advertising at Abbott Northwestern Hospital, Allina Commons (the Allina Health headquarters), and the Allina Health employee website. Participants were eligible if they were between the age of 18 and 65 years and were an actively working healthcare professional employed by Allina Health (50% or higher employee status). Participants needed a documented clinical diagnosis according to the DSM-IV (Diagnostic and Statistical Manual of Mental Disorders, 4th edition, text revision)[39] meeting criteria 296.2x Major Depressive Disorder (MDD), Single Episode, or 296.3x Major Depressive Disorder, Recurrent, as confirmed by the Mini International Neuropsychiatric Interview (MINI).[40] A trained MINI assessor conducted the MINI evaluations. Participants also had to present with a score on the Center for Epidemiologic Studies Depression (CESD-10) scale of greater than or equal to 10. Subjects were excluded for presence of any of the following: Axis I disorder other than MDD, current episode of depression which began less than four weeks from screening, or a history of inadequate response to adequate treatment (six weeks) with two or more classes of anti-depressants during the current depressive episode.

The first 20 consecutive individuals who met all eligibility criteria were assigned to the RT group and immediately started the RT program. The next 20 consecutive eligible individuals were placed into the wait-list comparison (WL) group. At the end of eight weeks, after the intervention group had completed the RT program, the WL participants began the RT program.

The Allina Health Institutional Review Board approved this study and all participants provided written informed consent.

Study Intervention

RT is a manualized eight-week group-based program designed for patients to discover and develop self-care skills and advance personal capacity for well-being. RT integrates three components: (1) mindfulness meditation practice, (2) nutrition, and (3) exercise recommendations. The RT program consists of 2.5-hour group mindfulness sessions for eight consecutive weeks with a trained facilitator. Individualized guidance from a psychiatrist, an exercise physiologist, and a clinical nutritionist are also provided to all participants at or near the beginning of the program, depending on participants' schedules. Individual sessions are each one-hour long.