

Mindfulness Beats Exercise, Healthy Diet in Resistant MDD

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TORONTO — Mindfulness-based cognitive therapy (MBCT) is superior to therapy focused on exercise and healthy eating in patients with treatment-resistant depression, new research shows.

Furthermore, imaging results demonstrated the MBCT intervention has a positive effect on areas of the brain involved in depression.

Conducted by investigators at the University of California at San Francisco and led by Stuart Eisendrath, MD, professor of clinical psychiatry, the randomized controlled trial also showed that MBCT also acts on parts of the brain involved in depression.



Dr Stuart
Eisendrath

The findings were presented here at the American Psychiatric Association (APA) 2015 Annual Meeting.

Severe Depression

Known as Practicing Alternatives to Heal Depression, the study was a single-blind randomized trial that included 173 patients with treatment-resistant major depressive disorder (TR-MDD), which was defined as failure to remit with two or more antidepressants.

Patients had a Hamilton Depression 17 (HAM-D 17) total score of at least 14, were taking an antidepressant, were not receiving psychotherapy or practicing extensive yoga, and not have a substance abuse problem. They also could not have a history of psychotic disorder or a Mini-Mental State Examination score of less than 25.

After screening, the investigators randomly assigned patients to 1 of 2 group-based interventions: MBCT, which involved learning mindfulness techniques, including sitting meditation and

included elements of cognitive-behavioral therapy, or the Health Enhancement Program (HEP), which focused on physical fitness, nutritional counseling, and music therapy.

About three quarters (75.9%) of the cohort was female; the mean patient age was 47.4 years for the MBCT group and 45.2 years for the HEP group.

The mean age at depression onset was 18.8 years for the MBCT group and 21.7 years for the HEP group. The total number of depressive episodes was 3.6 and 3.5 for the MBCT and HEP groups, respectively, and the length of the current depressive episode was 84.4 months for MBCT patients and 78.5 months for HEP patients.

Dr Eisendrath noted that while entry criteria was a HAM-D score of 14, the study patients were "well above that," with a mean score of 18.3 for the MBCT group and 17.4 for the HEP group.

"These people were quite ill. Many had had a hospitalization or suicide attempt. So these were some challenging folks who had been suffering for a long time."

Powerful Comparator Intervention

Participants in both groups had to complete 2 hours and 15 minutes of related exercises a week. They also had to complete 45 minutes of homework daily (eg, meditation for MBCT and food journaling for HEP).

Patients continued the medication management regimen they had been on before the start of the study. There were no significant between-group differences in medication changes during the study.

Dr Eisendrath pointed out that the HEP intervention was "a very powerful comparison" and that people who were in this group enjoyed it. "It was not an inactive control group."

After 8 weeks of the intervention, both groups improved, but the change in HAM-D score in the MBCT group was 36.6% vs 25.3% for the HEP group ($P = .01$). As for treatment response, again the MBCT group came out on top, with 29.58% of the sample achieving a 50% or greater reduction in HAM-D total score compared with 17.19% in the HEP group ($P = .0293$).

But while 21.12% of the MBCT group were in remission (defined as a HAM-D score of 7 or less) compared with 15.63% of the HEP group, this difference was not statistically significant ($P = 0.1797$).

"In this population who are treatment resistant, getting people to remit is a challenge, so it wasn't surprising that we had this result," said Dr Eisendrath.

The results of this study were actually better than the third or fourth stages of the Sequenced Treatment Alternatives to Relieve Depression (STAR*D) trial, he noted.

STAR*D involved four different treatment levels, with patients being encouraged to enter the next level of treatment if they did not achieve remission or response after a specified amount of time.

A limitation of the current study was the lack of a third group — a wait list control — so researchers were unable to determine whether factors unrelated to treatment, such as time or life events, were associated with treatment effects.

"But we wouldn't expect that to be great in this treatment-resistant population," said Dr Eisendrath.

As well, researchers didn't ask patients before randomization which intervention they preferred to determine whether this factored into the outcome. However, they did include a treatment expectancy assessment early on and found that patients in both groups had similar expectations of benefit. "So we don't think that was a very significant factor," said Dr Eisendrath.

Brain Changes

One theory explaining the underlying mechanisms of TR-MDD, said Dr Eisendrath, is that cognitive control mechanisms are deficient.

To help test that hypothesis, researchers carried out a pre- and postintervention functional MRI study on a subgroup of 88 patients (44 from each group). Participants completed an emotional working memory task while being imaged.

This analysis showed that among patients who had been practicing mindfulness, there were specific effects on areas of the brain's circuitry that play a role in depression.

For example, compared with the HEP patients, those in the MBCT group had enhanced dorsal lateral prefrontal cortex and reduced activation in the ventral lateral prefrontal cortex during the working memory performance.

In addition, improved depressive symptoms in the MBCT group were associated with enhanced regulation of amygdala activity during the working memory performance, said Dr Eisendrath.

"So after 8 weeks of training, the amygdala and ventral lateral prefrontal cortex are toned down and the dorsal lateral prefrontal cortex, which is an area associated with executive control of depression and with memory functions, is restored to normal activation levels," he noted.

Session moderator Shirwan Kukha-Mohamad, MD, a psychiatrist at the University Hospital, Saskatoon, Saskatchewan, Canada, said he was "intrigued" by the study.

"It really tells you that psychotherapy can be effective," said Dr Kukha-Mohamad. "We have to step away from just medication being the approach for treating depression in all its forms — the milder and moderate, or the more severe treatment-resistant depression."

He said that as he gets older, he increasingly believes in alternative approaches to treating depression.

Dr Eisendrath and Dr Kukha-Mohamad have disclosed no relevant financial relationships.

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