Workplace yoga and meditation can lower feelings of stress

August 4 2009, by Emily Caldwell

(PhysOrg.com) -- Twenty minutes per day of guided workplace meditation and yoga combined with six weekly group sessions can lower feelings of stress by more than 10 percent and improve sleep quality in sedentary office employees, a pilot study suggests.

The study offered participants a modified version of what is known as mindfulness-based stress reduction (MBSR), a program established in 1979 to help hospital patients in Massachusetts assist in their own healing that is now in wide use around the world.

In this context, mindfulness refers in part to one's heightened awareness of an external stressor as the first step toward relaxing in a way that can minimize the effects of that stress on the body.

While the traditional MBSR program practice takes up an hour per day for eight weeks supplemented by lengthy weekly sessions and a full-day retreat, the modified version developed at Ohio State University for this study was designed for office-based workers wearing professional attire.

The results of the pilot study are published in a recent issue of the journal *Health Education & Behavior*.

Participants attended one-hour weekly group meetings during lunch and practiced 20 minutes of meditation and yoga per day at their desks. After six weeks, program participants reported that they were more aware of external stressors, they felt less stressed by life events, and they

fell asleep more easily than did a control group that did not experience the intervention.

"Because chronic stress is associated with chronic disease, I am focusing on how to reduce stress before it has a chance to contribute to disease," said Maryanna Klatt, lead author of the study and an assistant professor of clinical allied medicine at Ohio State.

"My interest is to see whether or not we can get people to reduce their health care utilization because they're less stressed. I want to deliver something low cost at the work site, something practical that can be sustained, that can help reduce health care costs," Klatt said.

Klatt and colleagues are building on these preliminary findings and continuing to study the broader impact of the intervention in various populations, such as cancer survivors, intensive-care nurses and inner-city schoolchildren. In addition to gathering self-reported data from research participants, the scientists plan to collect biological samples to determine whether the intervention can lead to lower levels of stress hormones.

For the pilot study, the researchers recruited 48 adult office workers with body mass index scores lower than 30 who exercised less than 30 minutes on most days of the week. Half were randomized to the intervention and half were wait-listed to receive the intervention later. Forty-two people completed the study.

Those who received the intervention participated in weekly one-hour group sessions during which breathing, relaxation and gentle yoga movement were designed to coax participants toward a meditative state. Participants also discussed work-related stress. As part of the pursuit of mindfulness, they were coached to contemplate a specific topic in each session that explored their response to a specific type of stress over the

past week.

"It doesn't matter what the stress is, but how you change the way you perceive the stress," Klatt noted. "I like to describe mindfulness as changing the way you see what's already there. It's a tool that teaches people to become aware of their options. If they can't change the external events in their life, they can instead change the way they view the stress, which can make a difference in how they experience their day-to-day life."

The weekly sessions were supplemented by 20 minutes each day of movement and meditation guided by verbal cues and music provided on compact discs that Klatt designed and recorded. The entire intervention lasted six weeks.

The study analyzed participants' responses to the intervention using data from established research questionnaires that measured perceived stress, or the degree to which situations in life are considered stressful; a number of components of sleep quality; and what is called mindful attention awareness, which refers to how often a person is paying attention to and is aware of what is occurring in the present.

All participants completed the questionnaires before and after the intervention. Twenty-two adults completed the intervention. Their pre- and post-test results were compared to those reported by the 20 control participants.

Mindful attention awareness increased significantly and perceived stress decreased significantly among the intervention group when compared to the control group's responses. Overall sleep quality increased in both groups, but three of seven components of sleep were more affected in the intervention group.

On average, mindfulness increased by about 9.7 percent and perceived stress decreased by about 11 percent among the group that experienced the intervention. These participants also reported that it took them less time to fall asleep, they had fewer sleep disturbances and they experienced less daytime dysfunction than did members of the non-intervention group.

The researchers also took saliva samples to test for the presence of cortisol, a stress hormone, but found no significant changes in average daily levels of the hormone over time for participants in both groups. Klatt said the design of this part of the pilot study could have affected the result, and the sample collection technique will be changed in subsequent studies.

Klatt said mindfulness-based stress reduction, developed by Jon Kabat-Zinn at the University of Massachusetts Medical Center, has been studied widely and determined to be useful in lowering symptoms ranging from depression and anxiety to chronic pain. But the time commitment required in the program makes it impractical for busy working professionals, and adding a stress-reduction class outside of work could add stress to these people, she said.

So Klatt set out to develop what she calls a "low dose" of the program that is suitable for the workplace and still offers stress-reduction benefits. She specifically scheduled weekly sessions during lunch to avoid interfering with work time or home time, and combined movement with verbal prompts and music that are cues for participants to relax.

"As I've been working on the program, I heard so many of the participants say they wish they had learned this earlier," Klatt said.

Because the low-dose program remains a work-in-progress that is still

under investigation, it is not available for public use, Klatt noted.

More information: heb.sagepub.com/

Source: The Ohio State University (news : web)