

Yoga as a practice tool

By Amy Novotney

With a growing body of research supporting yoga's mental health benefits, psychologists are weaving the practice into their work with clients.

What was once a practice for a centered few has now become mainstream American: According to a survey last year by Yoga Journal, today more than 15 million U.S. adults practice yoga, and not surprisingly, there is research supporting its physical benefits. Studies show the practice—which combines stretching and other exercises with deep breathing and meditation—can improve overall physical fitness, strength, flexibility and lung capacity, while reducing heart rate, blood pressure and back pain.

But what is perhaps unknown to those who consider yoga just another exercise form is that there is a growing body of research documenting yoga's psychological benefits. Several recent studies suggest that yoga may help strengthen social attachments, reduce stress and relieve anxiety, depression and insomnia. Researchers are also starting to claim some success in using yoga and yoga-based treatments to help active-duty military and veterans with post-traumatic stress disorder.

"The evidence is showing that yoga really helps change people at every level," says Stanford University health psychologist and yoga instructor Kelly McGonigal, PhD.

That's why more clinicians have embraced yoga as a complement to psychotherapy, McGonigal says. They're encouraging yoga as a tool clients can use outside the therapy office to cope with stress and anxieties, and even heal emotional wounds.

"Talk therapy can be helpful in finding problem-solving strategies and understanding your own strengths and what's happening to you, but there are times when you just need to kind of get moving and work through the body," says Melanie Greenberg, PhD, a psychology professor at Alliant International University, who has studied yoga's benefits to mental health.

The mind-body meld

According to a study by Sherry A. Glied, PhD, professor of health policy and management at Columbia University, and Richard G. Frank, PhD, professor of health-care policy at Harvard Medical School, published in the May/June *Health Affairs* (Vol. 28, No. 3), the rate of diagnosed cases of mental disorders increased dramatically between 1996 and 2006—doubling among adults age 65 and older, and rising by about 60 percent among adults 18 to 64. During that same time period, rates of psychotropic medication use rose by about the same percentages among these groups.

In light of these numbers, yoga remains a natural and readily available approach to maintaining wellness and treating mental health issues, says Sat Bir Khalsa, PhD, a neuroscientist and professor of medicine at Harvard Medical School at Brigham and Women's Hospital in Boston who studies yoga's effects on depression and insomnia. Khalsa, who has practiced yoga for more than 35 years, says several studies in his 2004 comprehensive review of yoga's use as a therapeutic intervention, published in the *Indian Journal of Physiology and Pharmacology* (Vol. 48, No. 3), show that yoga targets unmanaged stress, a main component of chronic disorders such as anxiety, depression, obesity, diabetes and insomnia. It does this, he says, by reducing the stress response, which includes the activity of the sympathetic nervous system and the levels of the stress hormone cortisol. The practice enhances resilience and improves mind-body awareness, which can help people adjust their behaviors based on the feelings they're experiencing in their bodies, according to Khalsa.

While scientists don't have quite the full picture on how yoga does all that, new research is beginning to shed light on how the practice may influence the brain. In a 2007 study in the *Journal of Alternative and Complementary Medicine* (Vol. 13, No. 4), researchers at Boston University School of Medicine and McLean

Hospital used magnetic resonance imaging to compare levels of the neurotransmitter gamma-aminobutyric acid (GABA) before and after two types of activities: an hour of yoga and an hour of reading a book. The yoga group showed a 27 percent increase in GABA levels, which evidence suggests may counteract anxiety and other psychiatric disorders. GABA levels of the reading group remained unchanged.

"I believe if everyone practiced the techniques of yoga, we would have a preventive aid to a lot of our problems," Khalsa says. "There would likely be less obesity and Type-II diabetes, and people would be less aggressive, more content and more integrated."

Khalsa's claims are backed by evidence supporting the social benefits of participating in a yoga class, says Stanford's McGonigal. A series of experiments conducted by organizational behavior researchers at Stanford University and published in January's *Psychological Science* (Vol. 20, No. 1) suggest that acting in synchrony with others—be it while walking, singing or dancing—can increase cooperation and collectivism among group members.

"In a yoga class, everyone is moving and breathing in at the same time and I think that's one of the undervalued mechanisms that yoga can really help with: giving people that sense of belonging, of being part of something bigger," McGonigal says.

Psychologists are also examining the use of yoga with survivors of trauma and finding it may even be more effective than some psychotherapy techniques. In a pilot study at the Trauma Center at the Justice Resource Institute in Brookline, Mass., women with PTSD who took part in eight sessions of a 75-minute Hatha yoga class experienced significantly reduced PTSD symptoms compared with those participating in a dialectical behavior therapy group. The center recently received a grant from the National Center for Complementary and Alternative Medicine to conduct a randomized, single-blind, controlled study to further examine whether, as compared with a 10-week health class, yoga improves the frequency and severity of PTSD symptoms and other somatic complaints as well as social and occupational impairments among female trauma survivors.

"When people experience trauma, they may experience not only a sense of emotional dysregulation, but also a feeling of being physically immobilized," says Ritu Sharma, PhD, project coordinator of the center's yoga program, who only began practicing yoga when she started leading the program. "Body-oriented techniques such as yoga help them increase awareness of sensations in the body, stay more focused on the present moment and hopefully empower them to take effective actions."

And in what is becoming one of the most widely applied yoga-based trauma treatments, clinical psychologist Richard Miller, PhD, has developed a nine-week, twice-weekly integrative restoration program based on the ancient practice of yoga Nidra. In 2006, the Department of Defense began testing iRest with active-duty soldiers returning from Iraq and Afghanistan who were experiencing PTSD. At the end of the program, participants reported a reduction in insomnia, depression, anxiety and fear, improved interpersonal relations and an increased sense of control over their lives. Since then, iRest classes have been established at VA facilities in Miami, Chicago and Washington, D.C. Miller has also helped develop similar programs for veterans, homeless people and those with chemical dependencies and chronic pain.

"The program teaches them skills they can integrate into their daily lives, so that in the midst of a difficult circumstance, they have the tools to be able to work in the moment," says Miller, president of the Integrative Restoration Institute in San Rafael, Calif.

New research is also supporting yoga's benefit for other mental illnesses. An as-yet-unpublished randomized control trial by Khalsa offers insight into how yoga may reduce insomnia. In this study, 20 participants who practiced a daily 45-minute series of Kundalini yoga techniques shortly before bedtime for eight weeks reported significant reductions in insomnia severity as compared with those told to follow six behavioral recommendations for sleep hygiene. And a 2007 study supports yoga's potential as a complementary treatment for depressed patients taking antidepressant medication but only in partial remission. University of California, Los Angeles, psychologist David Shapiro, PhD, found that participants who practiced Iyengar yoga three times a week for eight weeks reported significant reductions in depression, anxiety and neurotic symptoms, as well as mood improvements at the end of each class (*Evidence-based Complementary and Alternative Medicine*, Vol. 4, No. 4). Many of the participants achieved remission and also showed physiological changes, such as heart rate variability, indicative of a greater capacity for emotional regulation, Shapiro says.

Putting yoga into practice

While she cautions against teaching yoga to clients without formal training, McGonigal and others say psychologists can use psychotherapy sessions to practice yoga's mind-body awareness and breathing techniques. Simple strategies—such as encouraging clients to get as comfortable as possible during their sessions or to pay attention to how their body feels when they inhale and exhale—teach clients to be in the here and now.

"These by themselves would be considered yoga interventions because they direct attention to the breath and help unhook people from thoughts, emotions and impulses that are negative or destructive," she says.

Alliant International University psychology professor Richard Gevirtz, PhD, agrees that alternatives to traditional psychotherapy may help clinicians make progress with difficult clients.

"Psychologists have painted themselves in the corner by only doing talk therapy," Gevirtz says. "There's much more that can be accomplished if you integrate it with other sorts of modalities, such as biofeedback, relaxation training or yoga."

In fact, some psychologists say yoga may not really be so special when it comes to improving one's mental state, and that several forms of exercise may provide mood-enhancing benefits.

In a 2007 study by researchers at Bowling Green State University, 36 participants kept mood diaries during the first and final four weeks of a 16-week weight-loss program. On the days participants engaged in planned exercise—typically walking for 30 to 60 minutes—they reported a better mood at night as compared to in the morning, before exercising (*Journal of Sport & Exercise Psychology*, Vol. 29, No. 6).

"It seems that many types of exercise—particularly non-competitive exercise—are related to positive mood alteration," says Bonnie Berger, EdD, one of the study's co-authors and professor and director of Bowling Green's School of Human Movement, Sport and Leisure Studies.

Psychologists may also benefit from using yoga and other forms of exercise for their own care, Greenberg says. In a 2007 survey of licensed APA members by the APA Board of Professional Affairs Advisory Committee on Colleague Assistance, 48 percent reported that vicarious trauma and compassion fatigue are likely to affect their functioning.

"Practicing yoga personally and adopting a stance based on yoga principles such as non-judgment, compassion, spirituality and the connection of all living things can help relieve stress, enhance compassion and potentially make you a better therapist," she says. "If you can come to a level of peace with yourself, there may be more nurturing that you exude toward your patients."

Amy Novotney is a writer in Chicago.

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