

# THE FUTURE OF BEING PRESENT

As mindfulness spreads far and wide, researchers are going deeper to find out how this practice really works and who could benefit most from it

By Kate Rope

MINDFULNESS HAS BECOME THE GOALPOST OF MODERN life, the answer to our high-paced, overstretched schedules. Do you know anyone who doesn't want to be "more mindful" in some aspect of their life? Just search for "meditation" in the App Store and you will find a mind-expanding number of apps intended to help you plug into the here and now.

"It's taken a leap forward," says Sharon Salzberg, co-founder of the Insight Meditation Society in Barre, Mass. For one, mindfulness has now become an accepted adjunct therapy for many conditions, especially in the field of mental health. In the past, says Salzberg, "if you were a psychologist or psychiatrist who included mindfulness, you usually didn't disclose that. These days, people tell me they are facing so much pressure to teach mindfulness in psychology training courses. It's a very different kind of acceptance."

And new applications are popping up every day. Digital mindfulness-based interventions to treat opioid addiction are being researched, and mindfulness is being studied in unexpected places, on the front lines in Iraq and as a tool in the battle for racial justice at home. Meanwhile, researchers are refining our understanding of the power of paying attention in some of life's most important moments.

## **New understanding, open questions**

For all the research showing the benefits of mindfulness in treating such conditions as anxiety, depression and chronic pain, researchers still don't know exactly *how* it works. "That's been the frontier for us, understanding the nuances of the mecha-

nism and then developing targeted treatment," says Judson Brewer, director of research for the Center for Mindfulness at the University of Massachusetts Medical School. He compares it to the evolution of cancer therapies. "The early cancer drugs were not very specific. Now cancer therapeutics are much more effective and have fewer side effects—we can do the same with mindfulness."

The important question to be answered is what

is the biggest game changer, agrees Zindel Segal, distinguished professor of psychology in mood disorders at the University of Toronto Scarborough. "Some say it's relaxation," he says. "Some say it's observing and decentering, and some say it's stress intolerance. That research doesn't exist yet."

But it's starting to.

Segal has a paper under review on the relationship between mindfulness practice and the pre-



vention of a relapse in depression. When his team looked at how often or how much people practiced, they did not find a relationship with decreased depressive symptoms or the chance of another episode. But when participants were taught a specific component of mindfulness known as “decentering,” the amount of practice that people engaged in *did* make a difference—more time was associated with fewer symptoms of depression. Decentering involves observing your thinking without getting pulled into its content. “If your practice allows you to build up skills in observing and decentering, then you’re going to see benefits in greater well-being down the road,” concludes Segal.

At his lab at Carnegie Mellon University in Pittsburgh, associate professor of psychology David Creswell has also been taking apart mindfulness practices, keeping some components and getting rid of others to try to separate out the stress-relieving effects.

He published a paper in 2017 in the journal *Clinical Psychology Review* showing a similar finding to Segal’s work: learning how to sit with unpleasant experiences and thoughts and just explore them with acceptance, interest and nonjudgment may be the key to reducing stress and improving health. Creswell and his team call it “monitor and acceptance theory.”

“The capacity to be open and accepting, even if the experience is difficult, seems to be a critical driver of the stress-reduction benefits we see with mindfulness interventions,” says Creswell.

#### Can computers make us more mindful?

It may seem highly ironic, but most people today are learning to be present in the physical world through their devices. “Historically, people learned about mindfulness in person from a teacher,” says Michael Mrazek, director of research at the Center for Mindfulness and Human Potential at the University of California, Santa Barbara. “These days, I think the majority of people have their first introductions online through the internet or an app. That’s the future, and yet the bulk of the research is still in these intensive in-person interventions.”

**LEARNING TO SIT WITH UNPLEASANT EXPERIENCES AND EXPLORE THEM WITHOUT JUDGMENT MAY BE THE KEY TO REDUCING STRESS.**

Clearly, the research needs to catch up. That is why several researchers are beginning to investigate the effectiveness of evidence-based mindfulness interventions delivered through a screen.

Brewer is studying the effectiveness of apps he and his team created to tackle emotional eating and anxiety. “With digital therapeutics, if there’s an urge that comes up, like an urge to eat, it walks them through a short practice to become aware of how that feels in their body,” says Brewer. “They can see what it feels like to have that craving, instead of being pushed around by it. In one study we found a 40% reduction in craving-related eating.” Brewer just won a \$10,000 grant to investigate using the same approach to address opioid addiction in Ohio.

Segal is evaluating whether mindfulness-based cognitive therapy—which has been shown to be as protective against a future episode of depression as anti-depressant medication when it is done face-to-face—can produce a similar result when delivered online.

As for the ubiquity of apps, Segal warns that it’s “a fairly unregulated space. Anyone who knows how to program can make an app.” He recommends evaluating apps based on what you hope to get out of them. “When it comes to mental health, the dimensions of

mindfulness that are incrementally valuable are the ones that allow people to observe their thinking and tolerate distress. If an app promises that, great. If an app promises a state of relaxation, there can be really good apps for that, but they are not the full measure of what mindfulness can do for mental health.”

As schools, workplaces and prisons throw together mindfulness programs, Creswell says, researchers are intent on figuring out the most useful ways to design and implement these programs so that they achieve their full potential.

#### Helping high school students tame digital-age stress

If you think you’re frazzled, consider your kids. During the school year, it turns out, teens are the most



Students meditate during Mindful Studies class at Wilson High School in Portland, Ore. The yearlong course incorporates mindfulness, yoga and meditation into the curriculum.

stressed demographic in the U.S., according to the American Psychological Association’s 2014 Stress in America survey. And high school students in particular are under constant pressure. But fortunately, they’re also well-suited to comprehend mindfulness and reap the rewards of it, says Mrazek. “They have a quite rich conceptual understanding of the world,” he notes. “Their awareness is really increasing, and they can develop a good understanding of their own minds.” It’s little surprise, then, that a meta-analysis published in 2017 in the journal *Mindfulness* found that compared with other students of varying ages, high schoolers benefited the most from mindfulness interventions.

Mrazek and his team are developing an online program using mindfulness practices to increase academic achievement in high schoolers. “That’s a tall order,” says Mrazek, “but I think there’s a whole

series of steps along the way that would be very meaningful to achieve, such as increasing attention spans, reducing stress and even just developing an appreciation for the value of focus.” That’s something that is missing in the multitasking madness of the modern high schooler who is regularly working on homework with an internet browser open while watching a video in yet another tab. “The students that we spoke to told us it is completely normal,” says Mrazek. “They don’t recognize the downsides. I think the skill of being present and valuing that as something useful in life is sorely needed.”

Two high schools in Illinois are already road testing the program. Mrazek and his team meet with students and teachers to get feedback to improve it. In the fall they will branch out to schools in California and Minnesota with the goal of launching nationwide by the fall of 2019.

**Helping firefighters keep calm in chaos**

“If you had told me 10 years ago—when I was fighting fires—that I would one day be teaching meditation, I would have said you’re crazy,” says Michelle Reugebrink, a health, wellness and resilience manager with the U.S. Forest Service. “But it has changed my life.”

Reugebrink became a U.S. Forest Service firefighter at the age of 16 as part of a program to support low-income teens, and she “instantly got the fire bug.” But when she lost her best friend to a Colorado fire in 1994, something changed for her. She transitioned to working on occupational health and safety for the service and kept following her heart and her passion until she found herself at the University of Massachusetts taking the Mindfulness-Based Stress Reduction training created by Jon Kabat-Zinn, the father of American mindfulness research. “It was transformational,” says Reugebrink, who brought it back to her work with employees of the U.S. Forest Service across the U.S.

Firefighters are “constantly under stress,” she says. “You are making quick decisions when a flame front is running up the ridge from you, or you are calling for an air-tanker drop. And you can actually take a pause and reset yourself in the midst of chaos.”

She sees the benefit in all areas of the job. “We have a very important mission in which we are taking care of our environment and our headwaters. It’s

a beautiful gift to be fully awake for that and to create a healthy work environment for our employees so they can thrive.”

And it’s catching on. There are already 500 people on the waiting list for Reugebrink’s fall session—which hasn’t even been announced yet.

**Equipping soldiers for life after war**

Half a world away, Maj. Gen. Walter Piatt brings mindfulness to his mission as the deputy commander for the Combined Joint Task Force, overseeing coalition operations in Iraq and along the Iraq-Syria border. “When you have to make the determination to use lethal force, you want to be at your absolute best,” says Piatt. “You have to feel it and deal with it, but you have to not be overwhelmed by it. You need mental clarity. Mindfulness gives me that ability.”

Piatt found his way to mindfulness after realizing that the programs to help soldiers reintegrate into life at home were falling short. “Anyone who deploys in a combat environment suffers from post-traumatic stress,” explains Piatt. “We do reintegration training, we do counseling, but we had been deployed so many times, and we were desperate to get something better so we could get soldiers home complete to their families.”

Then he heard Amishi Jha, a neuroscientist and associate professor of psychology at the University of Miami, speak about our inability to be present under stressful conditions. “It’s like she completely described me,” says Piatt. “I thought: This is it. This is something we should try.” So he signed his brigade up to participate in one of Jha’s studies.

Jha focuses her research on jobs that require intense preparation over a period of time followed by immersion in highly stressful situations in which performance matters. Think football players practicing for the big game, a lawyer preparing for trial or, in the case of troops, soldiers preparing to deploy. “We know that attention declines over those periods of time,” says Jha. “And now it’s showtime and you have less attention than when you started.” Plus more stress and anxiety.

Her research is already yielding important findings. For instance, it has shown that an eight-hour mindfulness-training course taught over four to eight weeks called Mindfulness-Based Attention Training “can protect against these effects.”

“We immediately saw results,” says Piatt. “You are paying attention a little bit more, you are listening to your wife talk to you, you’re listening to your children. I was playing catch with my son and watching the ball and listening to every word he said.”

And it’s filling a real need, he believes. “In my view, there is a gap in the Army’s approach to the total fitness of soldiers,” says Piatt. “We do physical fitness ruthlessly, we understand the importance of training, sleep, rest, diet and time with family before we deploy, but we really haven’t done anything that got after mental fitness. This is something the Army needs to fully embrace.”

**Building a diverse and relevant practice**

Mindfulness is also on the front lines of the fight for racial justice and healing from race-based trauma right here at home. When activist Angela Davis sat down with Kabat-Zinn at a benefit for the East Bay Meditation Center in Oakland, Calif., in 2015, she began with the question “In a racially unjust world, what good is mindfulness?” In doing so, she illuminated perhaps the greatest omission in mindfulness research: people of color.

But organizations and academics are beginning to take up that challenge. Angela Rose Black, founder and CEO of Mindfulness for the People, was a tenure-track professor at the University of Illinois at Urbana-Champaign researching stress-related health disparities among African-American women when she realized that she was suffering from stress-related health problems. “I felt it was contradictory for me to be a black woman researching stress in black women and not feel well,” says Black.

So she went searching for wellness. However, when Black walked into yoga studios and meditation centers, she discovered that the spaces she was turning to for healing from race-related stress were actually adding to it.

“I was the only [person of color] and oftentimes teachers and other practitioners didn’t know what to do with me. Should they overly welcome me? Try to pretend I wasn’t there? Over-direct me? Or leave me alone? And it just became another process for me to manage,” says Black. “That’s when I hit on the big irony of the moment. I am coming here to allow myself to release, and there is a lot going on that is counter to my ability to care for myself.”

She felt similarly alienated in the mindfulness and compassion teacher-training courses she subsequently took. “Decades of evidence-based, well-funded, highly visible and industry-standard findings that support mindfulness curricula and practices are predominantly normed on the lived experiences of white people,” says Black, who hopped

off the tenure track to pursue a National Institutes of Health-funded fellowship in complementary and integrative health research at the University of Wisconsin–Madison.

She also founded Mindfulness for the People, an organization dedicated to using mindfulness practices to help people of color heal from “racial battle fatigue” and address issues of “white fragility” at academic institutions and community organizations. And Black joined a growing body of researchers

and organizations, including the newly founded Institute of African American Mindfulness in Washington, D.C., who are answering Davis’s question: What good can mindfulness do in a racially unjust world?

“People of color are told in explicit and implied ways that our lives, our very breath doesn’t matter,” Black says. “This is one aspect of why a mindfulness practice—why pausing, why returning to the breath—is such a powerful tool for people of color to use in our self-healing journeys.” And white students benefit as well, she adds. They often tell her that being instructed by a person of color enriched their practice.

What’s clear is there is a continuing movement to find ways to feel more in control of our unique stresses and connected to the moment at hand. What do we know today about how the simple act of paying attention can improve our lives and the world we share? Let’s find out now.

**“PEOPLE OF COLOR ARE TOLD THAT OUR LIVES, OUR VERY BREATH DOESN’T MATTER. THIS IS WHY MINDFULNESS IS A POWERFUL TOOL IN SELF-HEALING.”**



*Angela Rose Black is committed to addressing racial disparities in mindfulness research.*